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15keVから500keVまでの鉛遮蔽材における  
ビーム状斜入射光子再生効果

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15keVから500keVまでの鉛遮蔽材における  
ビーム状斜入射光子再生効果

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ペンシルビーム状で、かつ斜入射の場合および等方放射の場合の再生効果を鉛遮蔽についてモンテカルロ電磁カスケードコードEGS4で計算し、グラフおよび表にまとめた。また、垂直一様入射の場合の再生係数を表わすのに使用されるGP法と比較し、入射角度が小さい場合は5 mfpの範囲内で、それ以外では10mfpの範囲内で良い一致をみた。検出器のサイズが再生効果に及ぼす影響についても検討した。

Build-up Effect on Obliquely Incident Pencil Beam Photon  
from 15 to 500 keV into Lead Shield

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In case of a lead shield, the build-up effect for low energy pencil beam photon and isotropic emitted photon ranging from 15keV to 500keV depending on the incident angle was calculated by using a Monte Carlo code EGS4 and the numerous results were given in forms of figures and tables. The EGS4 calculations were compared with the empirical approximation formula, the Geometrical Progression method, for the normal incidence, showing good agreement in the range of up to 10 mean free path of lead except for low incident angle. Detector size dependence on the build-up effect is also discussed.

Keywords: Buildup, Photon, Low Energy, Shield, Lead, Obliquely Incident, Pencil Beam

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## 1. 緒言

点減衰核法で遮蔽計算を行う場合、散乱線による再生効果を考慮することが必要である。この再生効果を表わす方法として、種々の経験式や実験式<sup>(1)、(2)</sup>が提供されている。これらの再生効果を表わす式は、そのほとんどが媒質に垂直、一様入射した場合を想定しており、斜入射を想定したデータはコンクリート<sup>(3)、(4)</sup>に見られる程度である。

放射光ビームラインのような、指向性が強く、かつペンシルビーム状の放射線の場合、遮蔽材に対してビームが斜入射する場合が多い。また、例えば光学素子や実験試料がビームの散乱体となる場合、垂直、一様入射した場合とは条件が大きく異なり、従来の再生効果評価式をそのまま適用できるか不明である。

ESRF<sup>(5)</sup>、APS<sup>(6)</sup>やSpring-8<sup>(7)</sup>のような第3世代放射光施設では、かつて存在しなかった程度の大強度、高輝度の放射光を得ることができ、それに伴って放射光ビームラインの遮蔽条件は、一層厳しいものとなり、光学ハッチや実験ハッチの遮蔽設計は、厳密さを要求される。一般に厳密な遮蔽計算を目的とする場合、モンテカルロコードを用いたシュミレーション計算を行うことが多い。一方、放射光のような大強度の放射線を線源とし、非常に大きな減衰を取り扱う遮蔽安全を問題とする場合、モンテカルロコードのようなシュミレーション計算は統計誤差が大きくなり、不向きである。従って散乱線の再生効果を補正した点減衰核法を用いた方が有利である場合が多い。

そこで、放射光ビームラインハッチの遮蔽安全設計計算を想定して、光子エネルギーが15 keVから500 keVの範囲で、遮蔽材が鉛の場合のペンシルビーム状斜入射再生効果および等方放射の場合の斜入射再生効果を、低エネルギーまで拡張された電磁シャワー輸送モンテカルロ計算コードシステムEGS4<sup>(8)、(9)</sup>で求めた。また、代表的な再生効果評価方法であるGP法(Geometrical Progression method)<sup>(10)</sup>と比較することによって、垂直平行入射のGP法を用いて得られる再生係数が、斜入射再生係数として利用可能かどうかを検討した。

## 2. 計算方法

### 2. 1 再生係数

一般に、再生係数 (build-up factor) は次の様に定義される。

$$\text{再生係数} = \frac{\text{検出器に到達した全光子}}{\text{検出器に到達した一次光子}} \quad \dots\dots \text{式(2-1)}$$

検出器で検出される量の種類により光子数再生係数 (number build-up factor)、エネルギー再生係数 (energy build-up factor)、線量再生係数 (dose build-up factor) などがある。再生係数は一次光子のエネルギー、吸収材の種類、幾何学的条件などの関数である。

平行ビーム線源  $N_0$  が減弱係数  $\mu$  の厚さ  $t$  の平面を透過する場合の光子束  $\phi$  は、再生係数  $B_N$  を使用して、次式となる。

$$\phi = B_N N_0 e^{-\mu t} \quad \dots\dots \text{式(2-2)}$$

点等方線源  $Q$  が減弱係数  $\mu$ 、厚さ  $t$  の球殻の中心におかれている場合、線源から  $X$  の点での光子束は、再生係数  $B_N$  を使用して、次式となる。

$$\phi = B_N Q / (4 \pi X^2) \cdot e^{-\mu t} \quad \dots\dots \text{式(2-3)}$$

本研究では、線量再生係数を評価対象とした。

### 2. 2 評価モデル

本計算では、円筒形の RZ 体系で、円管型線束検出器の機能を有する「EGS4 コード (EGS4 CYLP)」を用いた。

鉛遮蔽材における斜入射光子再生係数を求める評価モデルとして、図 2. 1 に示す、(1) 点線源から 1 方向のみに放射される線源 (ペンシルビーム状線源) の場合、(2) 点線源より等方に放射される線源 (点等方線源) の場合を選定した。

(1)、(2)とも点線源とした理由は、放射光ビームにより照射されたターゲットを光子の発生源とした場合を想定したことによる。ペンシルビーム状線源と点等方線源の解析結果を比較することによって、図 2. 1 に示す経路②、③の再生効果を表わすことができると考えられる。

### 2. 3 計算手順

計算は、以下に示す 3 項目で行った。



- 1) EGS4コードによる線束の計算
- 2) 再生係数の算出
- 3) GP法による再生係数との比較

### 2.3.1 EGS4コードによる線束の計算条件

EGS4計算体系を図2.2に示す。評価を行った計算条件は以下に示す①～⑤である。

- ① 円筒モデル : 遮蔽材までの半径 500 mm
- ② 発生光子エネルギー : 15～500 keV
- ③ 放射角度 : ケース1 平行ビーム10、40、60及び90度  
(図2.2に示すZ方向を0度とした)  
ケース2 等方線源
- ④ 遮蔽物質と厚さ : 200keV以上 鉛 1、2、4、7及び10 mm  
150keV以下 鉛 1、2、5 mfp  
(各エネルギーに対応する鉛のmfp (mean free path) を表2.1に示す。)
- ⑤ 評価量 : 遮蔽物質を通過した直後の検出器の幅1cm当たりの円筒検出器を通過する線束を算出

光子エネルギーが100、150keVについては、蛍光X線の影響をみるために、蛍光X線を含まない計算も実施した。

### 2.3.2 再生係数の算出方法

空気に対するエネルギー吸収再生係数を以下の方法で算出した。

$$\text{空気吸収再生係数} = \frac{\text{全光子による空気の吸収線量}}{\text{一次光子による空気の吸収線量}} \quad \dots \text{式(2-4)}$$

ここで、一次光子には単色エネルギーを与えた。一方、全光子による空気の吸収線量は、厳密には、一次および散乱各光子毎に求めた空気の吸収線量を積算して求めるが、本報告では、エネルギー多群近似法を採用し、計算の簡素化を図った。計算に用いた群構造を表2.2に示す。

全光子による空気の吸収線量Dは次式により求めた。

$$D = (\text{各エネルギー群の線束} \times \text{空気のエネルギー吸収係数}) \text{の和}$$

$$= K \sum_{i=1}^n (E_i \cdot \mu_{a_i} \cdot \phi_i) \quad \dots\dots\dots \text{式 (2-5)}$$

- ここで、
- $n$  : エネルギー群数
  - $K$  : 換算係数
  - $\mu_{a_i}$  : エネルギー群  $i$  の空気のエネルギー吸収係数  
( J.H.Hubbellのデータ<sup>(11)</sup> )
  - $E_i$  : エネルギー群  $i$  の光子エネルギー
  - $\phi_i$  : エネルギー群  $i$  の線束

また、一次光子による空気の吸収線量  $D_1$  は、次式により求めた。

$$D_1 = K \cdot E \cdot \mu_a \cdot e^{-\mu \rho_p t} \quad \dots\dots\dots \text{式 (2-6)}$$

- ここで、
- $K$  : 換算係数
  - $\mu_a$  : 空気のエネルギー吸収係数  
( J.H.Hubbellのデータ<sup>(11)</sup> )
  - $\rho_p$  : 鉛の密度
  - $\mu$  : 鉛の減弱係数 (coherent散乱を含まない)  
(PHOTX2<sup>(12)</sup>)
  - $t$  : 鉛中の通過距離 ( $t_0 / \sin(\theta)$ 、 $t_0$ : 鉛厚さ)
  - $E$  : 光子エネルギー
  - $\theta$  : 検出器・線源間と Z 方向が成す角度

### 2. 3. 3 GP法による再生係数との比較

単一層再生効果に対する評価式に GP 法が良く用いられている。GP 法では、垂直平行入射を前提に 5 つのフィッティングパラメータ ( $B$ 、 $c$ 、 $a$ 、 $Xk$ 、 $d$ ) を使用して、再生係数を算出する。GP 法の関数形は複雑であるが、他の経験式に比べて  $10^4$  を越える再生係数も精度良く近似できる。

この GP 法による再生係数と EGS 4 計算結果を用いて式 (2-4)、(2-5)、(2-6) より求めた斜入射光子再生係数と比較した。

### 3. 計算結果および検討

GP法による再生係数とEGS4計算結果を用いて求めた斜入射光子再生係数を比較した形で、斜入射ビームによる計算結果を図3. 1-(1)~(13)に示し、等方線源による計算結果を図3. 2-(1)~(13)に示す。

図3. 1と図3. 2は、光子エネルギー毎に対する結果としてまとめた。この図の横軸はmfp(平均自由行程)単位の厚さであり、縦軸は空気線量再生係数を示す。白抜き記号がEGS4により計算した再生係数であり、実線がGP法による再生係数である。図中の角度は検出点の角度を示している。図3. 1での光子の放射方向は検出点の角度と同一であるが、図3. 2では等方である。

ペンシルビーム状入射における再生係数の計算結果は

(1) 光子エネルギーが80keV以下の場合、5mfpの範囲内でGP法とEGS4の計算結果は、全ての入射角度について一致を示した。また、5mfpから10mfpの範囲内で、入射角度が40度以上のときには、GP法とEGS4計算結果は良い一致を示した。入射角度が10度のときには、5mfpを越えるとGP法の計算結果より大きくなる傾向が認められた。

(2) 光子エネルギーが100keV以上の場合、全ての入射角度についてGP法の計算結果よりEGS4計算結果が小さい傾向を示した。

(3) 光子エネルギーが300keV以上で入射角度が10度の場合以外、EGS4計算結果は入射角度に依存せず、mfpに対して同一曲線上に乗り連続した傾向を示した。

光子エネルギー100、150keVについての斜入射ビームによる計算結果、図3. 1-(8)、(9)に示した様に、蛍光X線を含まないEGS4による再生係数計算結果は、mfpが増加しても、それほど増加傾向を示さなかった。

ペンシルビーム状で入射角度が10度の場合について、計算条件である検出器の幅、1cmを変化させた場合のEGS4による計算結果を図3. 3に示す。そのときの光子飛跡を図3. 4-(1)、(2)に示す。図3. 3に示されているように、検出器幅を大きくすることによって、EGS4による再生係数計算結果はmfpが増すことに伴い、大きくなった。その原因は、光子飛跡図、図3. 4-(1)、(2)に示されているように、検出器幅を大きくすることによって、実効的な遮蔽材透過距離が短い散乱線が多く検出されることによる。

等方線源の場合、

(1) 光子エネルギーが100keV以下の場合、GP法とEGS4の計算結果は全ての入射角度について良い一致を示した。

(2) ペンシルビーム状入射のときと比較した結果を図3. 5(1)~(13)に示す。100keV以外の、全てのエネルギー範囲、入射角度にわたって顕著な差は存在しなかった。

図3. 5-(8)に示されているように、100keVときは、わずかに等方線源の方

が大きな値を示しており、入射角度が10度のときには、mfpが増すに従い大きな値を示した。また、光子エネルギー100、150keVについての等方線源計算結果を図3. 2-(8)、(9)に示す。図に示した様に、蛍光X線を含まないEGS4による再生係数計算結果は、ペンシルビーム状入射と場合と同様に、mfpが増加しても、それほど増加傾向を示さなかった。

#### 4. 結論

放射光ビームライン遮蔽設計計算で使用される、鉛に対するペンシルビーム状および等方線源の斜入射再生係数を、EGS4コードを用いて求め、図示および表に示した。またGP法の計算結果と比較した。その結果は、

- (1) ペンシルビーム状線源で鉛に斜入射した場合の再生係数は、5mfp以内でGP法と良い一致を示した。5mfp以上10mfp以内では、入射角度が40度以上のときではGP法と良い一致を示した。入射角度が10度のときには、GP法より大きい再生係数を示す傾向がある。この理由は、散乱線が遮蔽材を横切る距離が一次線が横切る距離よりも著しく小さくなるためと考えられる。
- (2) ペンシルビーム状斜入射の場合と等方線源の場合との比較では、蛍光x線が問題となる100keVで入射角度が10度以外のとき、大きな差異は存在しない。
- (3) 鉛の蛍光X線が問題となる約0.089~約0.15MeV範囲では、ペンシルビーム状及び等方線源の場合も蛍光X線を考慮することによって、GP法と良い一致を示した。また、0.5MeV以下では、蛍光X線の影響が少ない0.089~0.15MeVの範囲外では再生係数は2以下であった。

以上のことにより、10mfpまでの鉛遮蔽の場合のペンシルビーム状及び等方線源の斜入射再生係数は、GP法で良く再現される。ただし、入射角度が小さい(10度以下)ときには、5平均自由行程(mfp)以上でGP法は過少評価することがわかった。

今後は角度が浅い斜入射の場合でもこのGP法による再生効果の過少評価を行わないよう、遮蔽材の実効長さ(Slant length)の評価式を検討する必要がある。

が大きな値を示しており、入射角度が10度のときには、mfpが増すに従い大きな値を示した。また、光子エネルギー100、150keVについての等方線源計算結果を図3. 2-(8)、(9)に示す。図に示した様に、蛍光X線を含まないEGS4による再生係数計算結果は、ペンシルビーム状入射と場合と同様に、mfpが増加しても、それほど増加傾向を示さなかった。

#### 4. 結論

放射光ビームライン遮蔽設計計算で使用される、鉛に対するペンシルビーム状および等方線源の斜入射再生係数を、EGS4コードを用いて求め、図示および表に示した。またGP法の計算結果と比較した。その結果は、

- (1) ペンシルビーム状線源で鉛に斜入射した場合の再生係数は、5mfp以内でGP法と良い一致を示した。5mfp以上10mfp以内では、入射角度が40度以上のときではGP法と良い一致を示した。入射角度が10度のときには、GP法より大きい再生係数を示す傾向がある。この理由は、散乱線が遮蔽材を横切る距離が一次線が横切る距離よりも著しく小さくなるためと考えられる。
- (2) ペンシルビーム状斜入射の場合と等方線源の場合との比較では、蛍光x線が問題となる100keVで入射角度が10度以外のとき、大きな差異は存在しない。
- (3) 鉛の蛍光X線が問題となる約0.089~約0.15MeV範囲では、ペンシルビーム状及び等方線源の場合も蛍光X線を考慮することによって、GP法と良い一致を示した。また、0.5MeV以下では、蛍光X線の影響が少ない0.089~0.15MeVの範囲外では再生係数は2以下であった。

以上のことにより、10mfpまでの鉛遮蔽の場合のペンシルビーム状及び等方線源の斜入射再生係数は、GP法で良く再現される。ただし、入射角度が小さい(10度以下)ときには、5平均自由行程(mfp)以上でGP法は過少評価することがわかった。

今後は角度が浅い斜入射の場合でもこのGP法による再生効果の過少評価を行わないよう、遮蔽材の実効長さ(Slant length)の評価式を検討する必要がある。

## 参考文献

- (1) A.B.Chilton, J.K.Shultie, R.E.Faw: Principles of Radiation Shielding  
Prentice-Hall INC. NJ.(USA) (1984)
- (2) M.J.Berger, J.Doggett., J. of Res. Nat Bar. Std. 56 89(1956)
- (3) Y.Harima: An Approximation of Dose Transmission and Reflection Probabilities for  $\gamma$ -rays Obliquely Incident and for a Plane Isotropic Source on Finite Concrete Barriers.,  
Bulletin of the Tokyo Institute of Technology. No. 116 (1973)
- (4) W.L.Dunn, A.H.Yacount, F.O. Fogh Ludha and G.Riel, Gamma-Ray and Neutron Dose-  
Equivalent Buildup Factors for Infinite Slab., Nuclear Sci. & Eng. 100.(1992)
- (5) European Syntron Radiation Facility, The Red Book Draft B. Grenoble France (1987)
- (6) Argonne National Lab, 7Gev Advanced Photon Source Conceptual Design Report.  
ANL-87-15 Argonne USA(1987)
- (7) JAERI-RIKEN SPring-8 Project Team, Spring-8 Project Part 1, Facility Design, Tokyo  
Japan(1991)
- (8) W.R.Nelson, H.Hirayama and D.W.O.Rogers., The EGS4 Code System, ,  
SLAC-265(1985)
- (9) Y.Namito, LSCAT; Low Energy Photon Scattering Expansion for EGS4 Code, KEK  
Internal 95-10(1995)
- (10) Y.Harima & Y.Nishiwaki., An Approximation of Gamma-Ray Buildup Factors by  
Geometrical Progression, Nucl. Eng. and Design, 23(1972)
- (11) J.H.Hubbell, Photon Mass Attenuation and Energy-absorption Coefficients from 1keV  
to 20MeV, Int.J.Appl.Radiat. Isot. Vol 33.(1982)
- (12) M.J.Berger & J.H.Hubbell, NBS-NSRDS DATA Library PHOTX ver. 2, NBS Photon  
and Charged Particle Data Center. (1988)

表2.1 鉛のmfp (平均自由行程) 単位当たりの厚さ

光子エネルギー (MeV)	厚さ (mm)
0.5	5.85
0.4	4.08
0.3	2.35
0.2	0.94
0.15	0.46
0.1	0.16
0.08	0.42
0.06	0.19
0.05	0.12
0.04	0.07
0.03	0.03
0.02	0.01
0.015	0.008

表2.2 評価に用いたエネルギー群構造

群番号	下限エネルギー (MeV)	上限エネルギー (MeV)
1	0.0(PCUT)	0.01
2	0.01	0.0125
3	0.0125	0.0175
4	0.0175	0.0225
5	0.0225	0.025
6	0.025	0.035
7	0.035	0.045
8	0.045	0.055
9	0.055	0.065
10	0.065	0.07
11	0.07	0.09
12	0.09	0.11
13	0.11	0.125
14	0.125	0.225
15	0.225	0.25
16	0.25	0.35
17	0.35	0.45
18	0.45	0.55

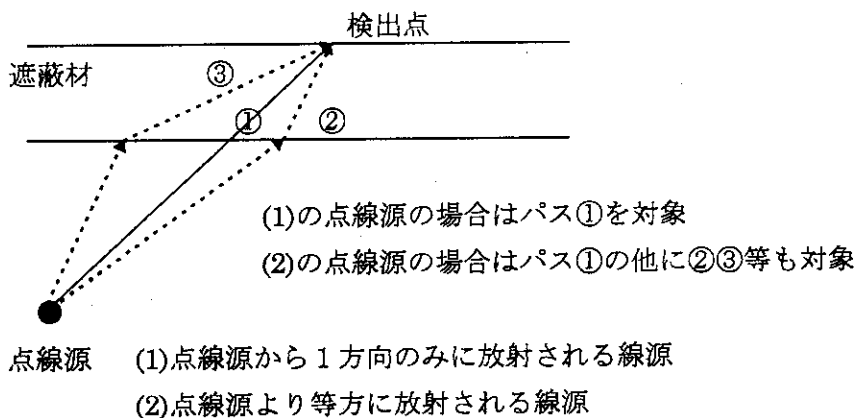


図2.1 評価モデルの比較

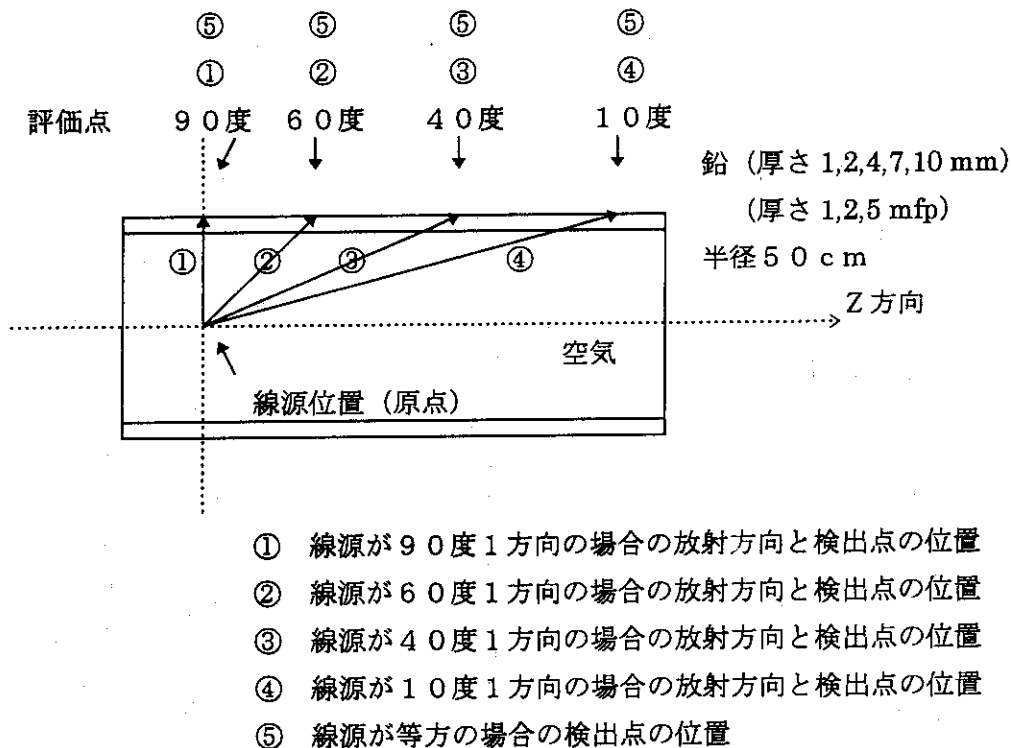


図2.2 EGS4コードによる線束の計算体系



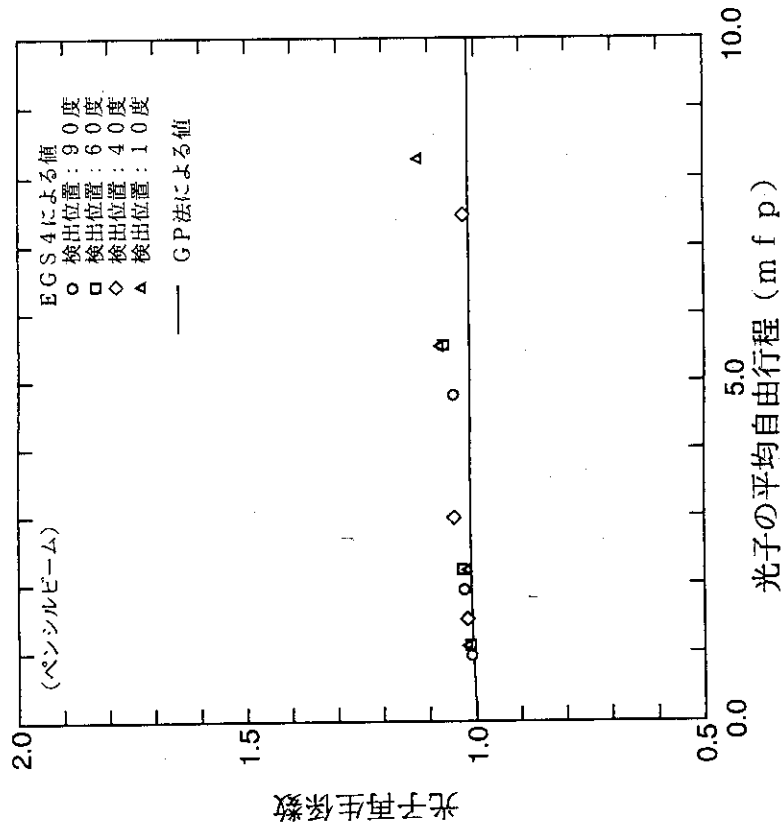


図3.1-1(2) 薄い鉛遮蔽材における斜入射光子再生係数の比較 (光子エネルギー：20keV)

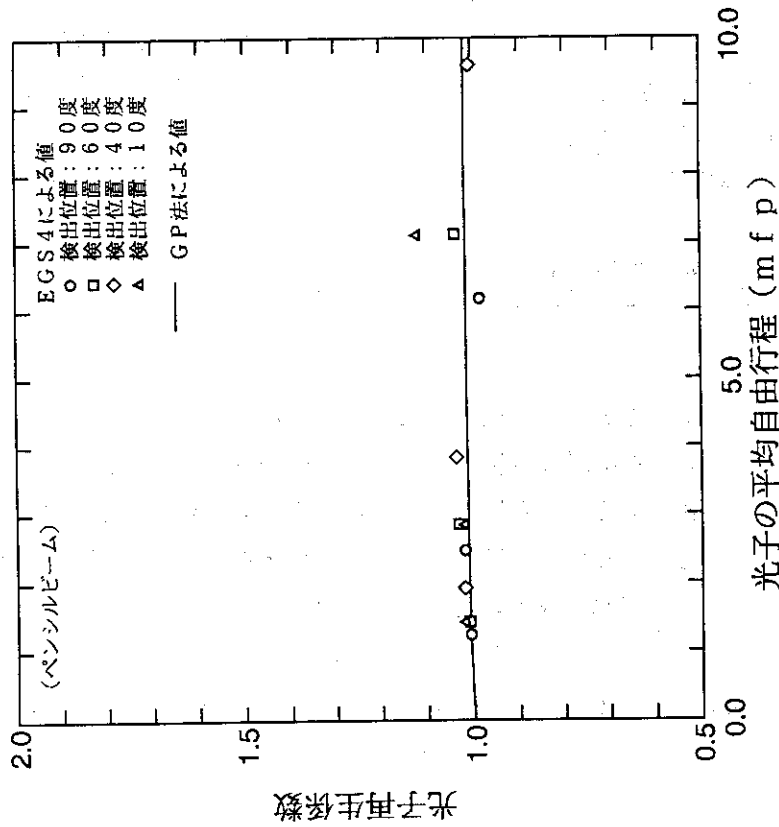


図3.1-1(1) 薄い鉛遮蔽材における斜入射光子再生係数の比較 (光子エネルギー：15keV)

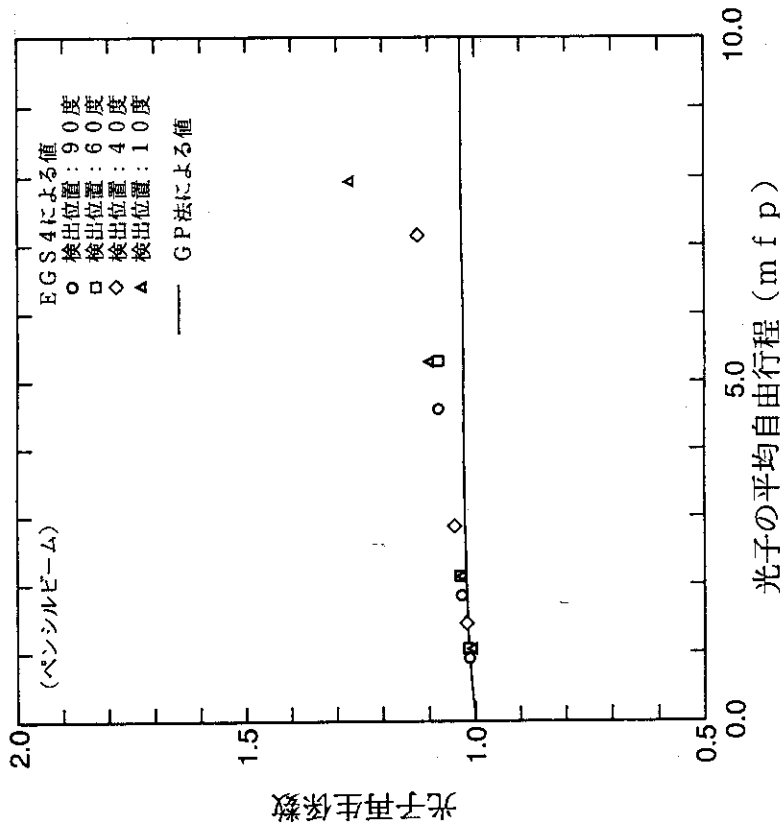


図3.1-(4) 薄い鉛遮蔽材における斜入射光子再生係数の比較 (光子エネルギー: 40keV)

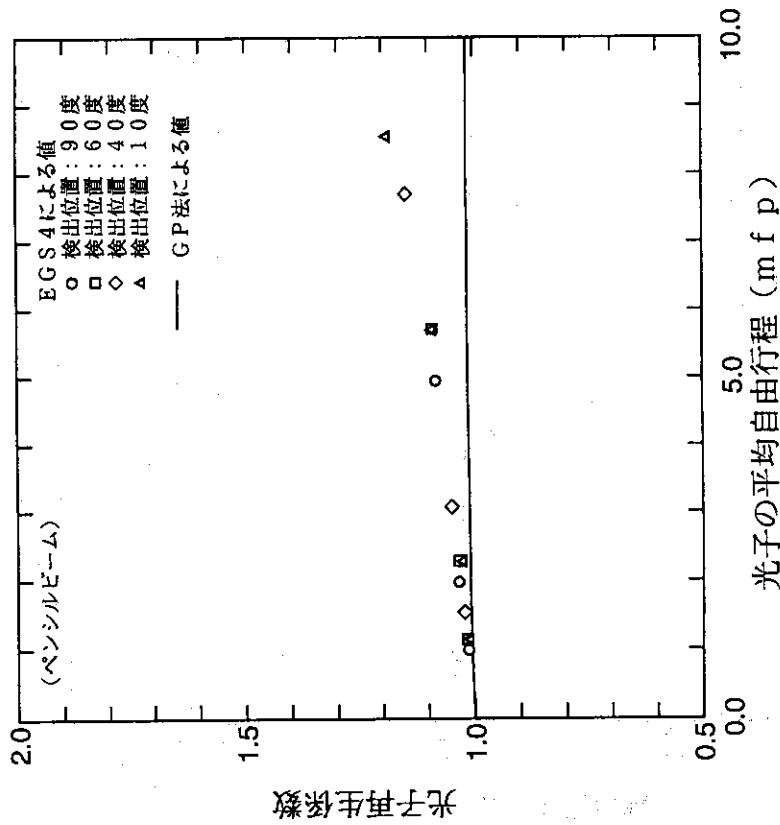


図3.1-(3) 薄い鉛遮蔽材における斜入射光子再生係数の比較 (光子エネルギー: 30keV)

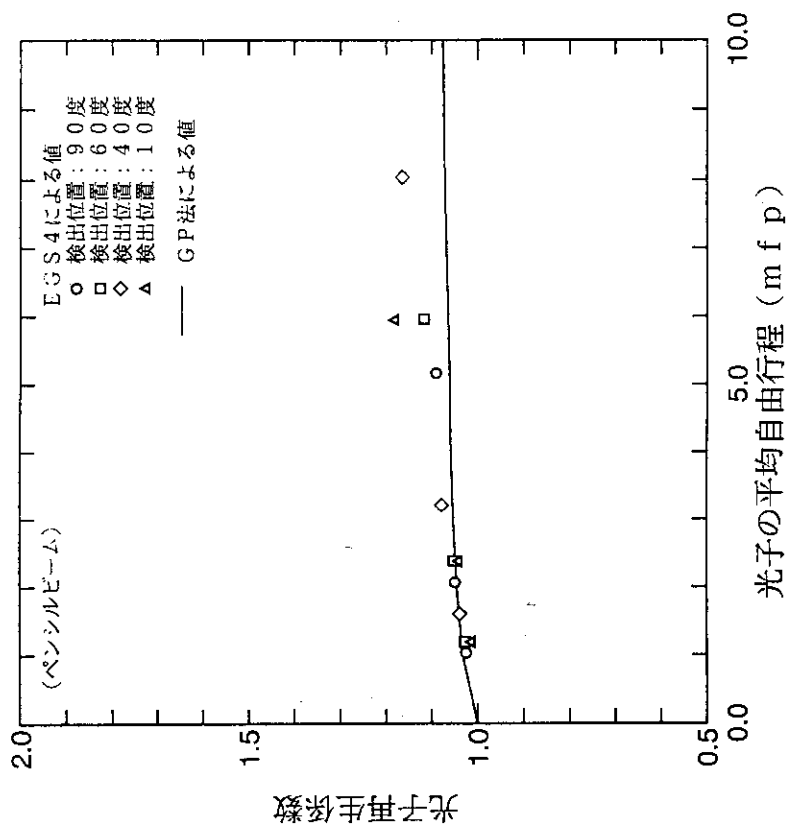


図3.1-(6) 薄い鉛遮蔽材における斜入射光子再生係数の比較 (光子エネルギー: 60keV)

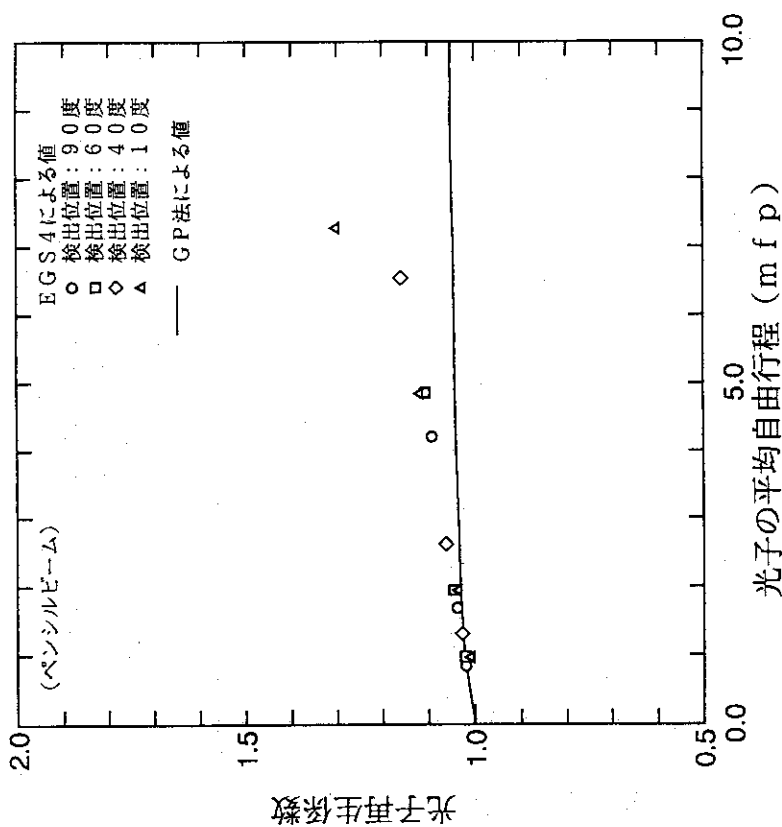


図3.1-(5) 薄い鉛遮蔽材における斜入射光子再生係数の比較 (光子エネルギー: 50keV)

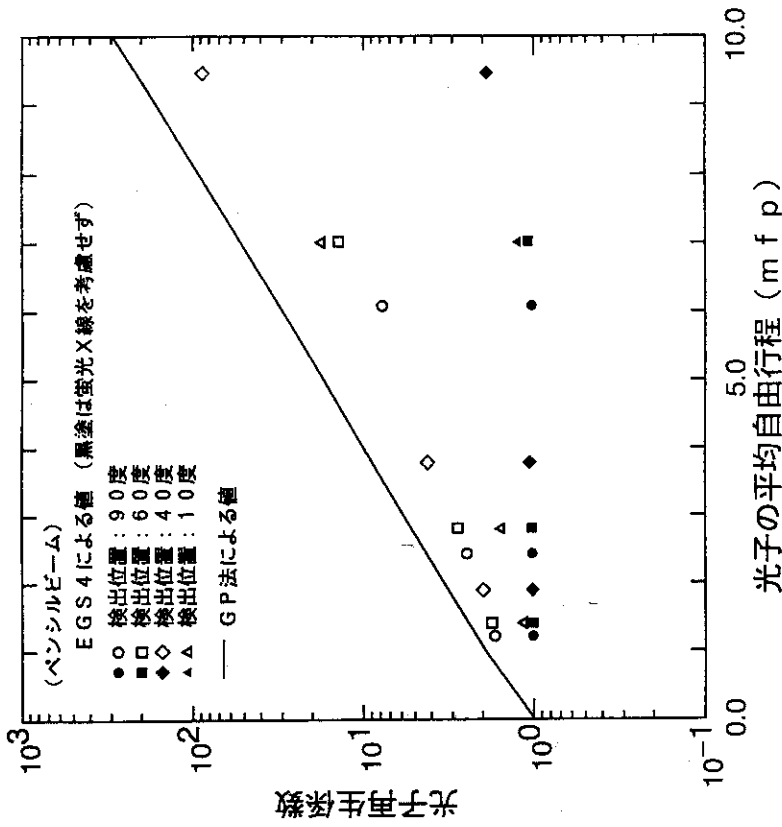


図3.1-(8) 薄い鉛遮蔽材における斜入射光子再生係数の比較 (光子エネルギー: 100keV)

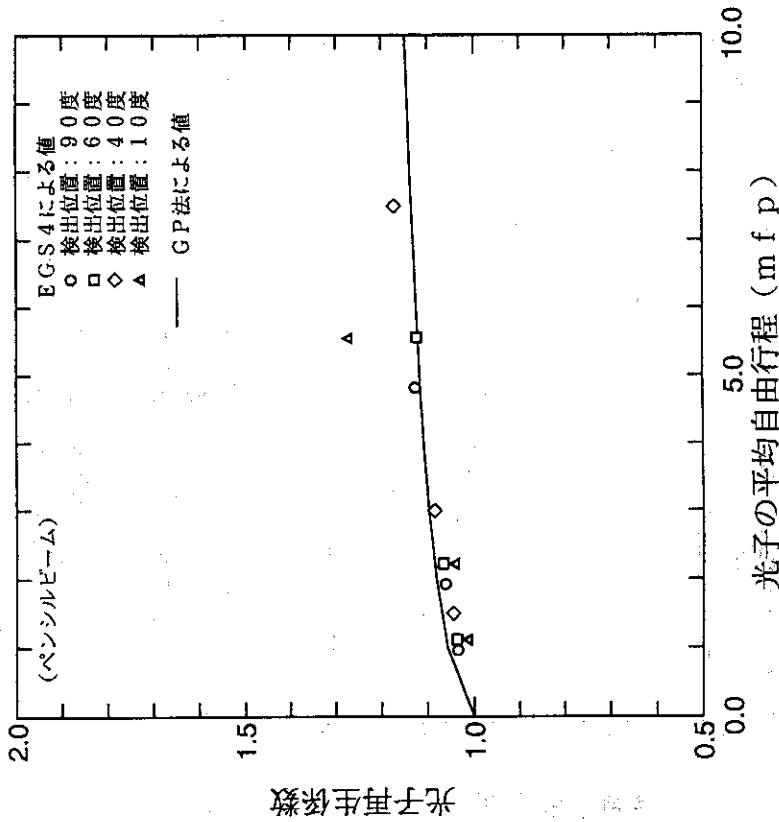


図3.1-(7) 薄い鉛遮蔽材における斜入射光子再生係数の比較 (光子エネルギー: 80keV)

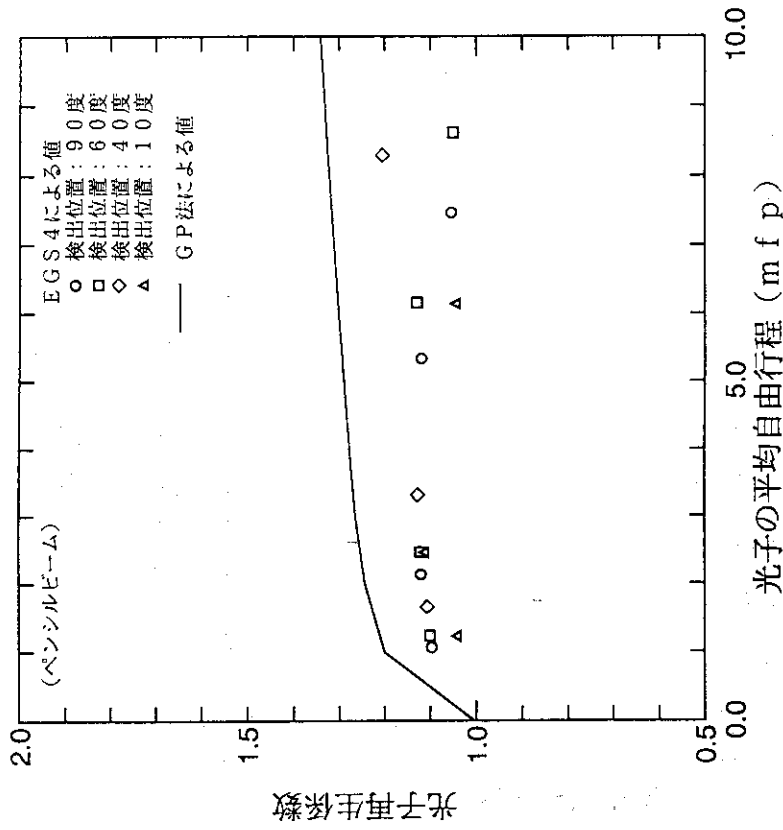


図3.1-(10) 薄い鉛遮蔽材における斜入射光子再生係数の比較 (光子エネルギー: 200keV)

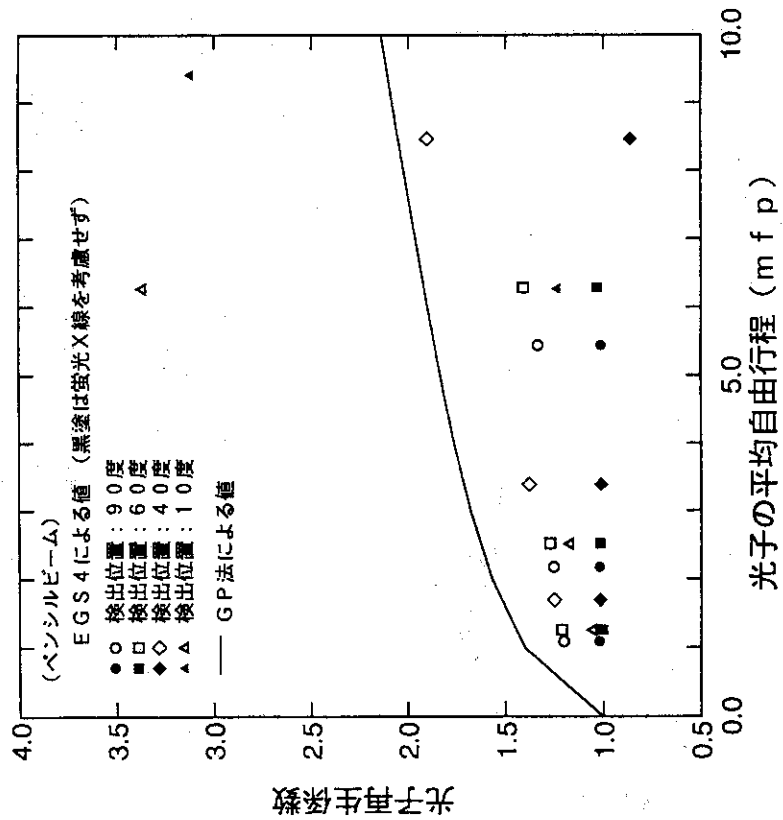


図3.1-(9) 薄い鉛遮蔽材における斜入射光子再生係数の比較 (光子エネルギー: 150keV)

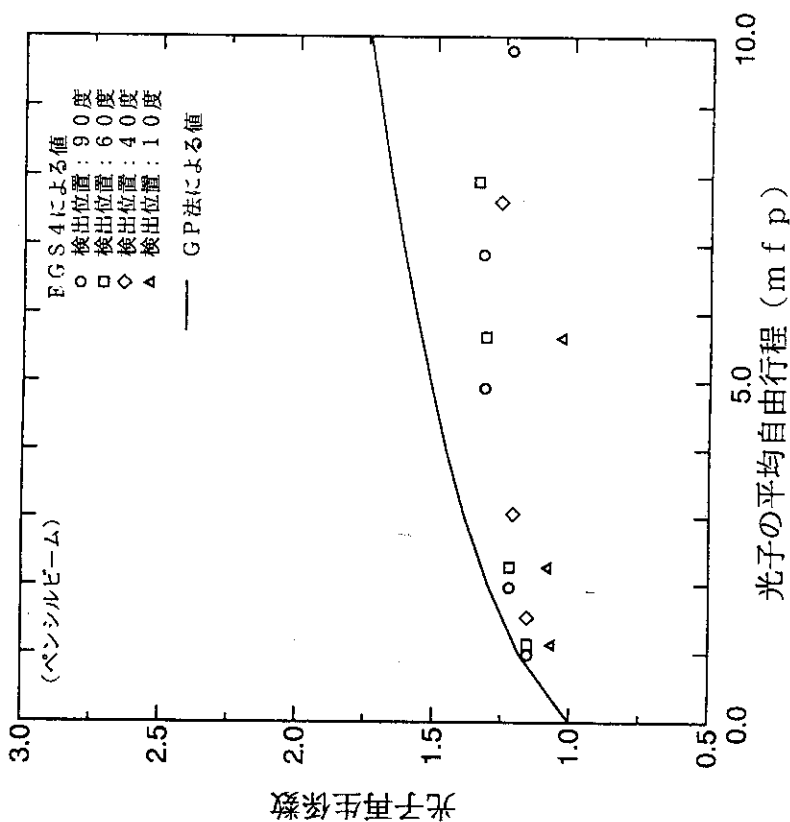


図3.1-12 薄い鉛遮蔽材における斜入射光子再生係数の比較 (光子エネルギー：400keV)

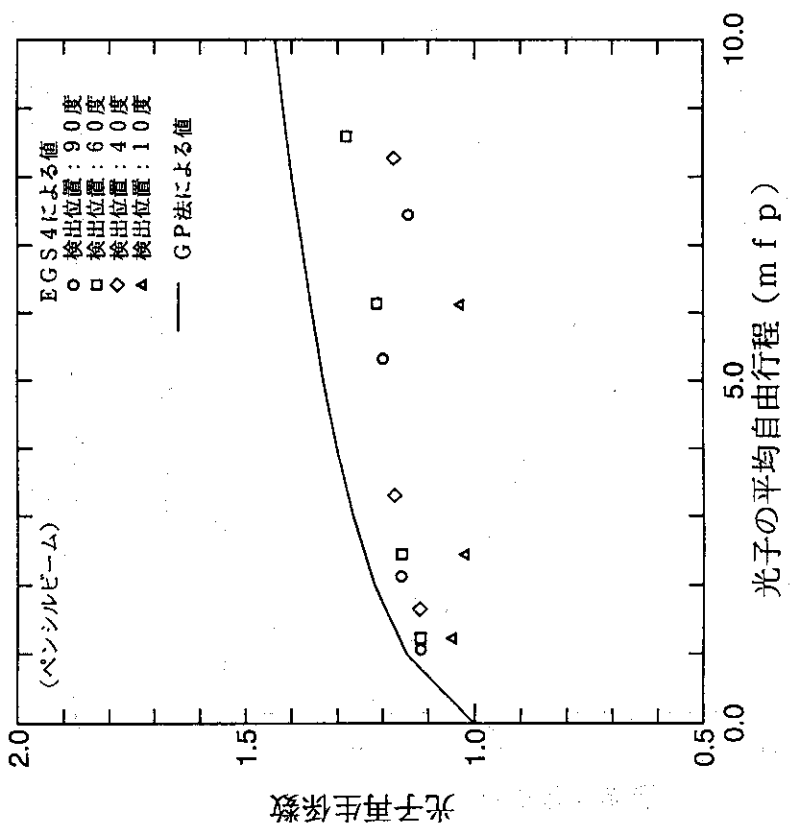


図3.1-11 薄い鉛遮蔽材における斜入射光子再生係数の比較 (光子エネルギー：300keV)

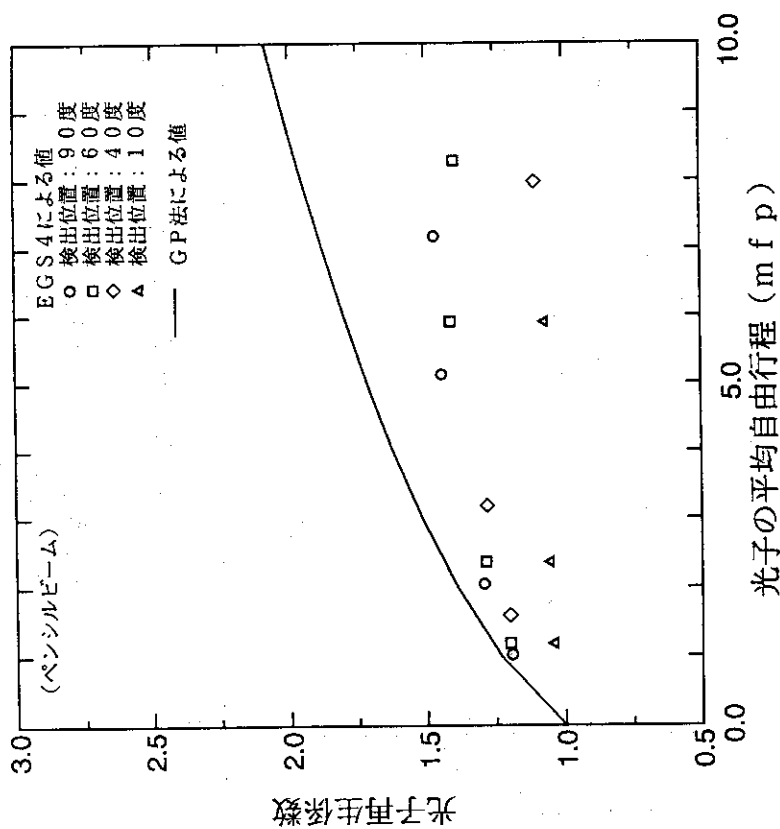


図3.1-13 薄い鉛遮蔽材における斜入射光子再生係数の比較 (光子エネルギー: 500keV)

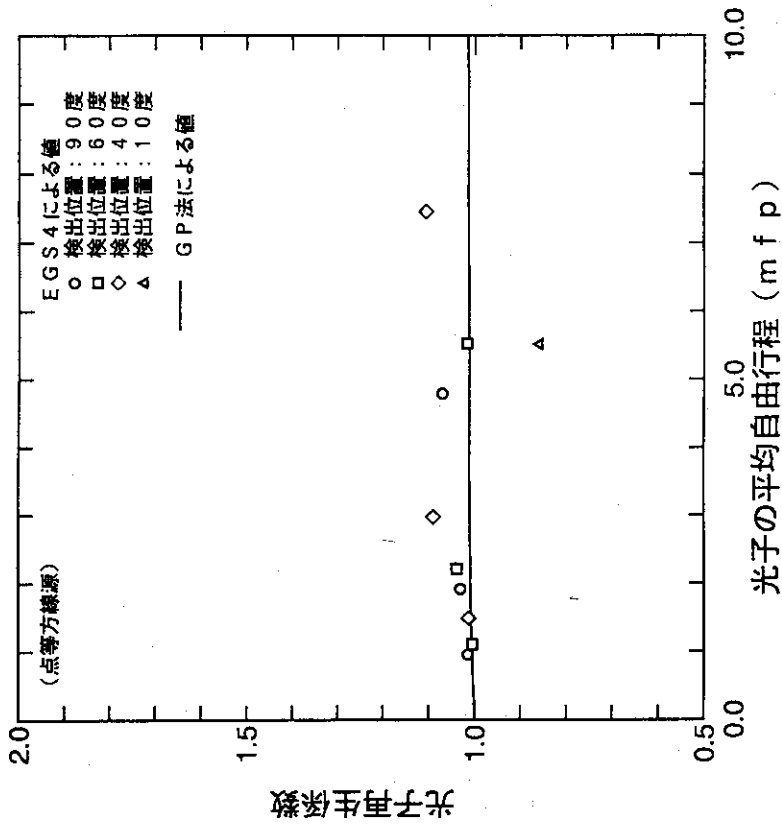


図3.2-2(2) 薄い鉛遮蔽材における斜入射光子再生係数の比較 (光子エネルギー: 20keV)

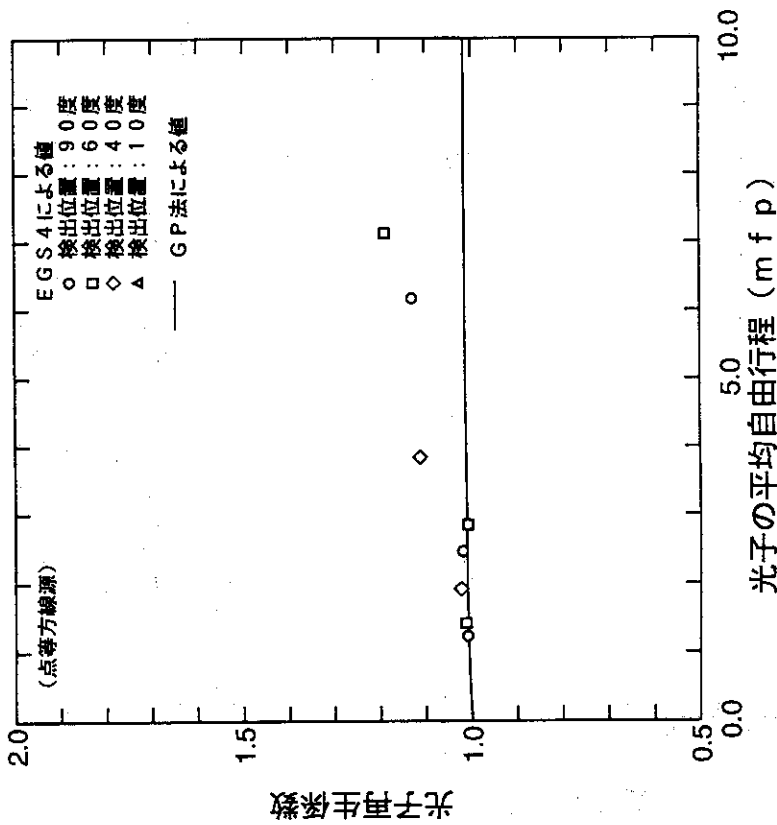


図3.2-1(1) 薄い鉛遮蔽材における斜入射光子再生係数の比較 (光子エネルギー: 15keV)



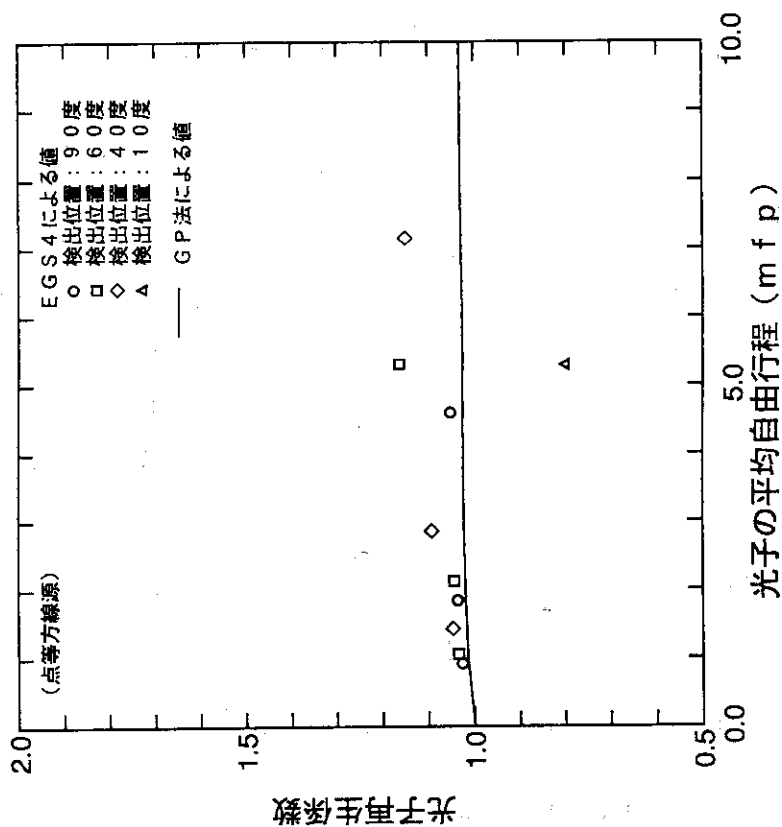


図3.2-2-(4) 薄い鉛遮蔽材における斜入射光子再生係数の比較 (光子エネルギー：40keV)

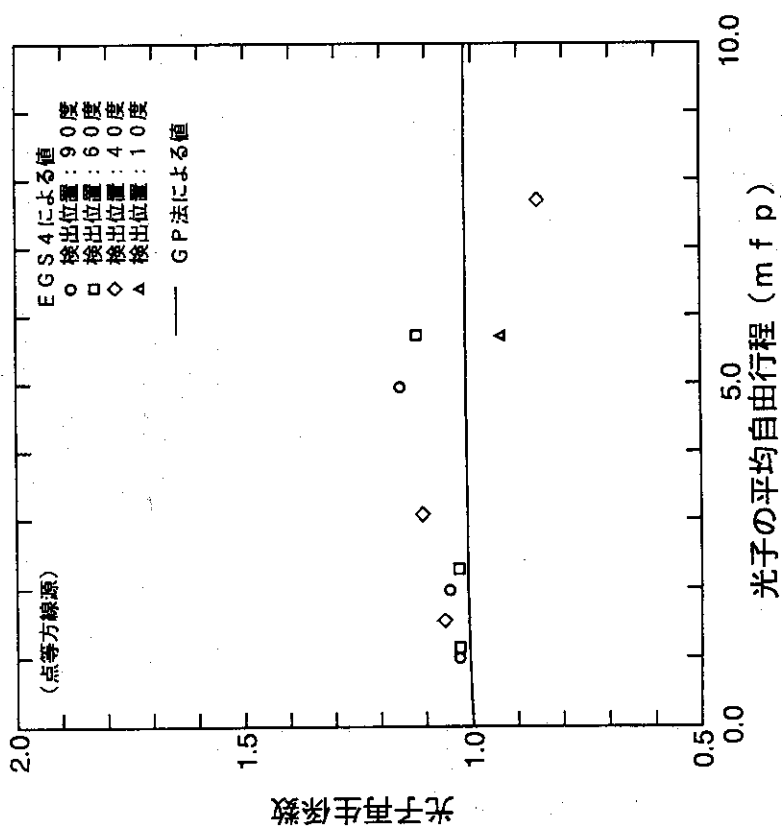


図3.2-2-(3) 薄い鉛遮蔽材における斜入射光子再生係数の比較 (光子エネルギー：30keV)

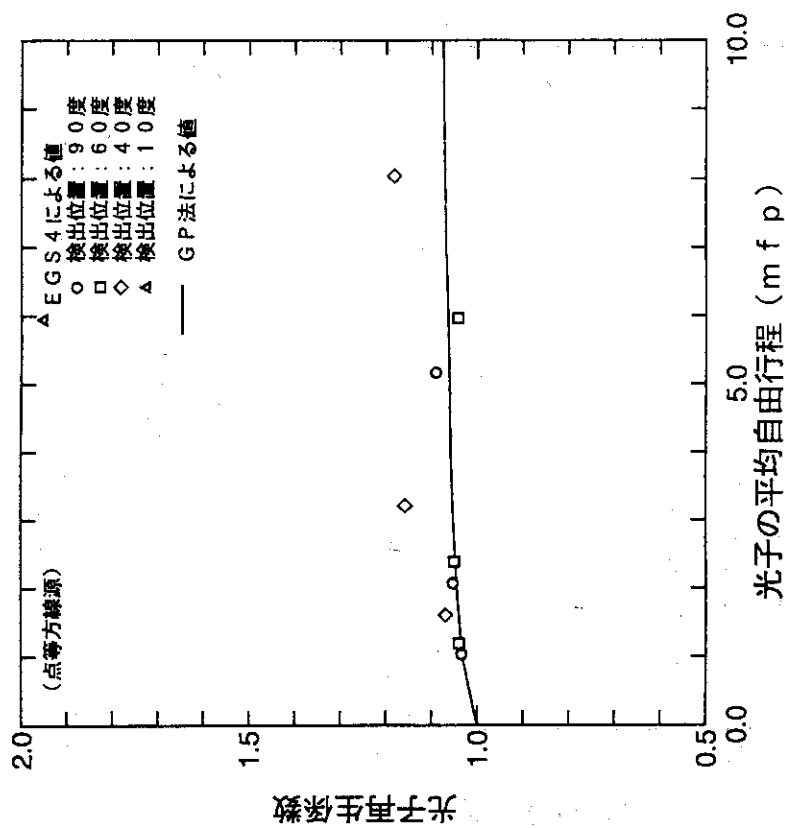


図3.2-5) 薄い鉛遮蔽材における斜入射光子再生係数の比較 (光子エネルギー：50keV)

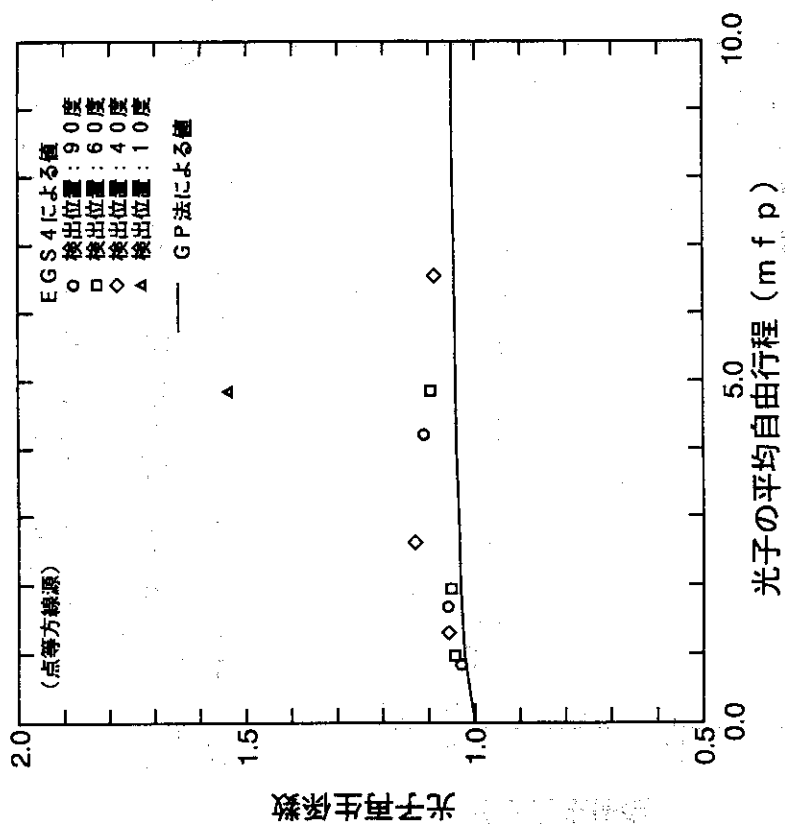


図3.2-6) 薄い鉛遮蔽材における斜入射光子再生係数の比較 (光子エネルギー：60keV)

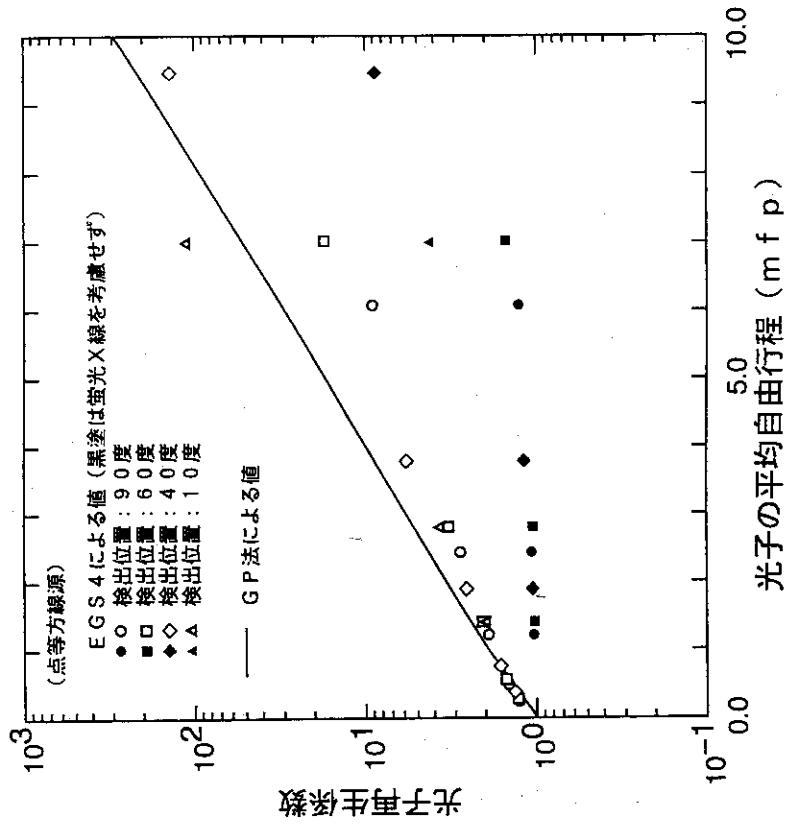


図3.2-(8) 薄い鉛遮蔽材における斜入射光子再生係数の比較 (光子エネルギー: 100keV)

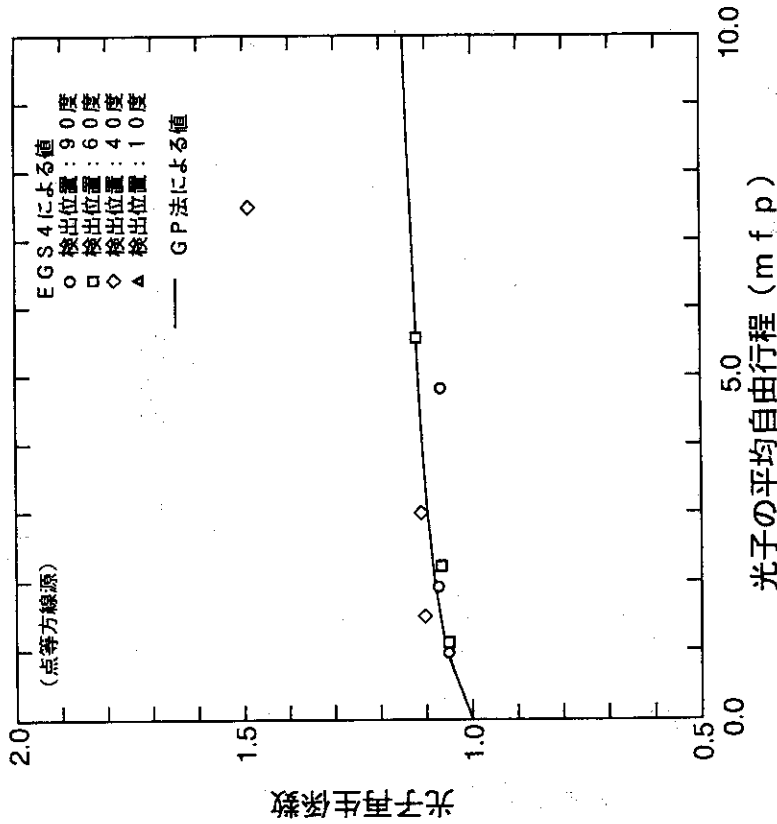


図3.2-(7) 薄い鉛遮蔽材における斜入射光子再生係数の比較 (光子エネルギー: 80keV)

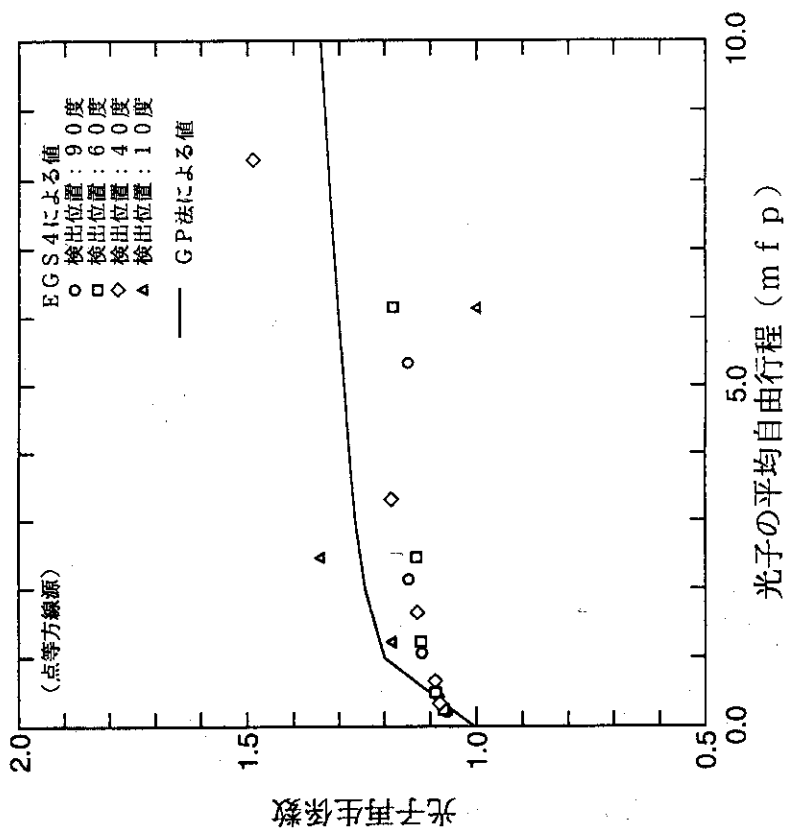


図3.2-(9) 薄い鉛遮蔽材における斜入射光子再生係数の比較 (光子エネルギー：150keV)

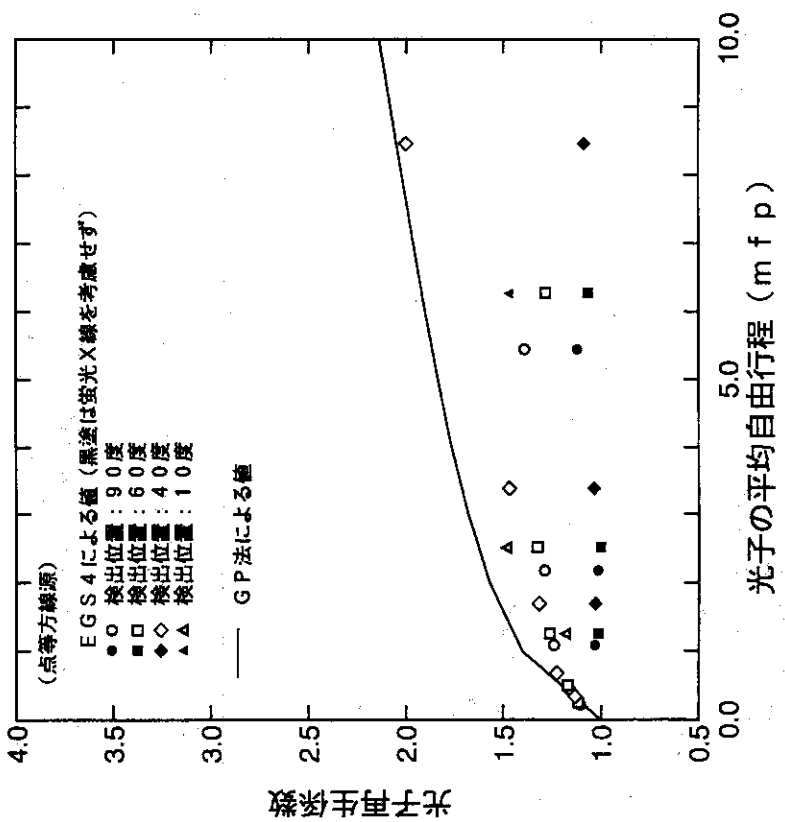


図3.2-(10) 薄い鉛遮蔽材における斜入射光子再生係数の比較 (光子エネルギー：200keV)

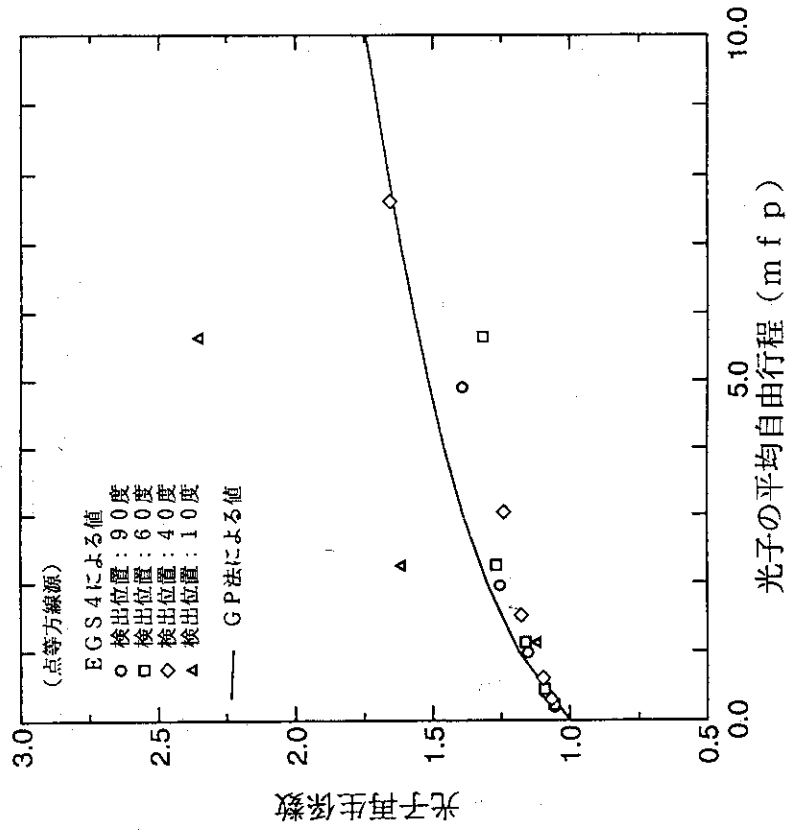


図3.2-(II) 薄い鉛遮蔽材における斜入射光子再生係数の比較 (光子エネルギー: 400keV)

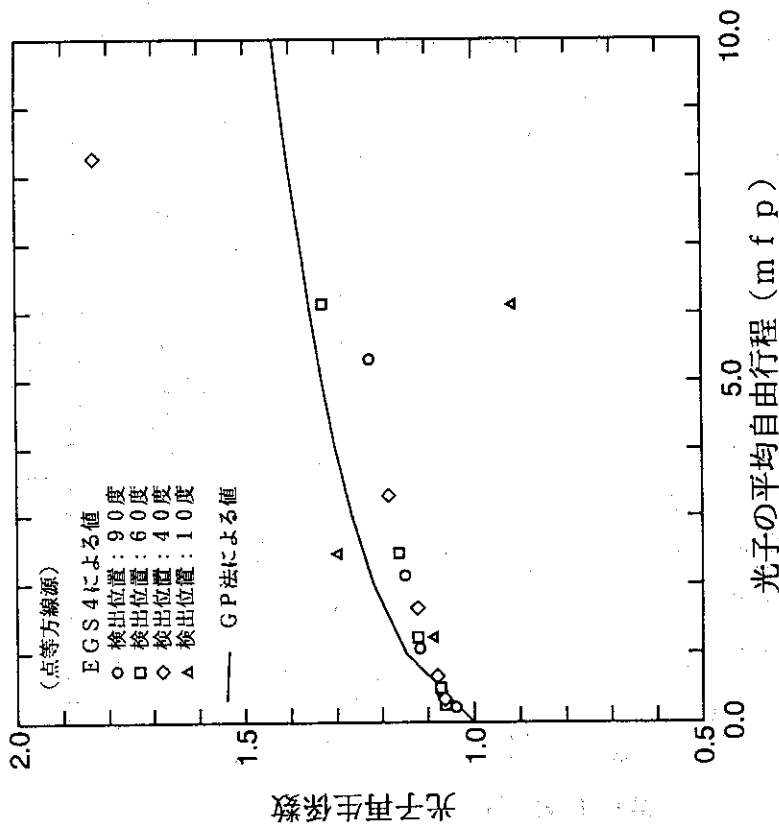


図3.2-(I) 薄い鉛遮蔽材における斜入射光子再生係数の比較 (光子エネルギー: 300keV)

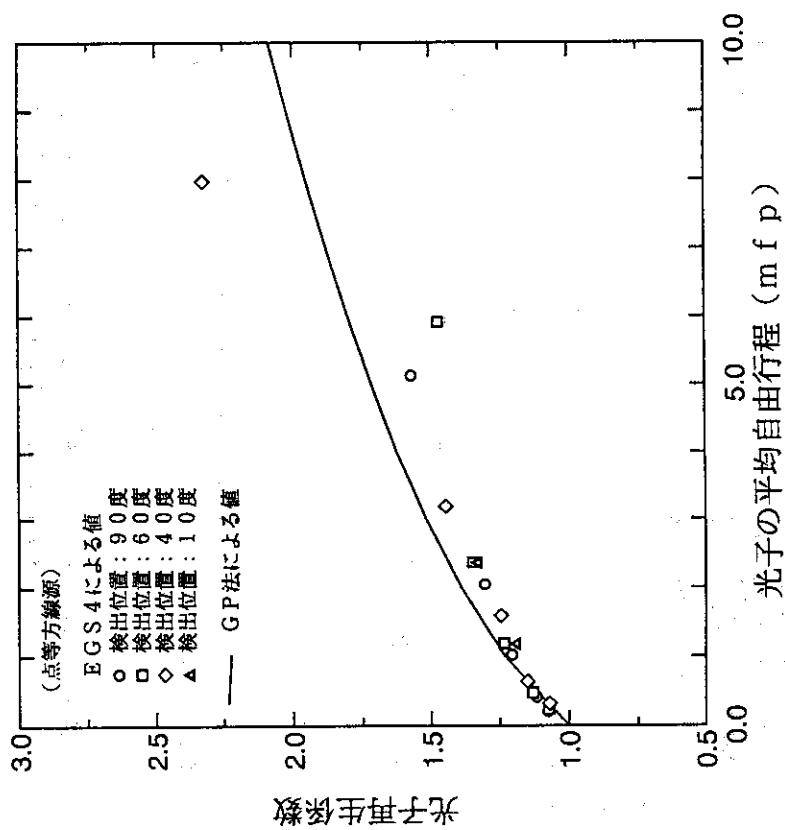


図3.2-13) 薄い鉛遮蔽材における斜入射光子再生係数の比較 (光子エネルギー: 500keV)

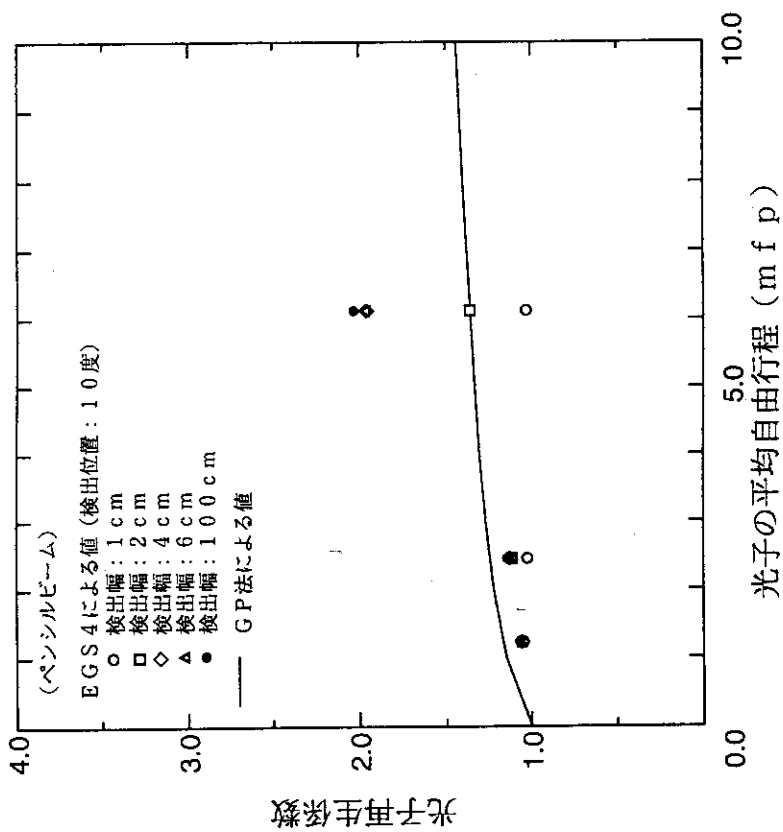


図3.3-(1) 薄い鉛遮蔽材における斜入射光子再生係数の比較 (光子エネルギー: 200keV)

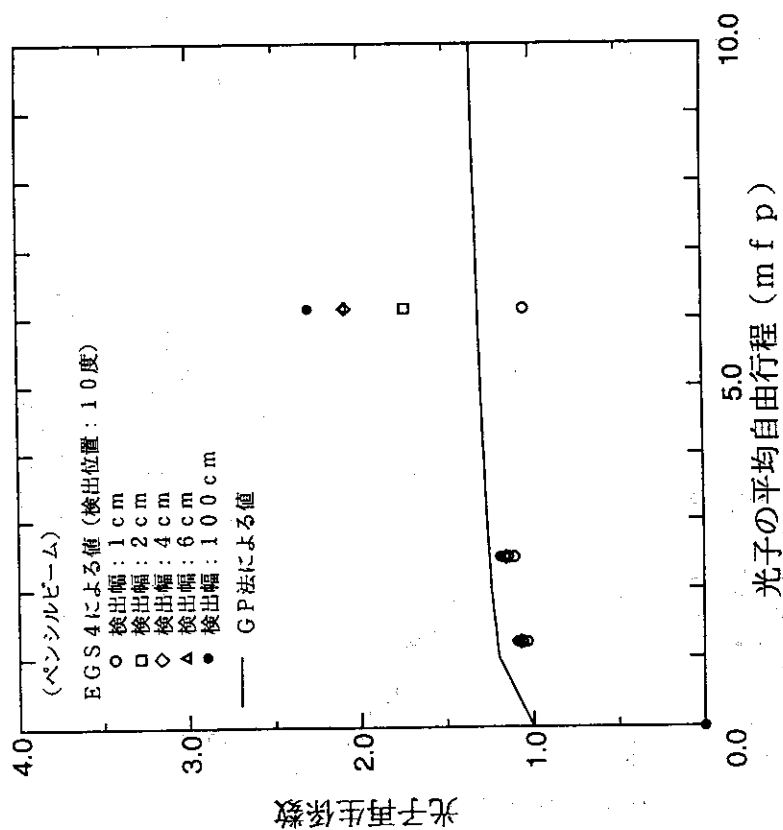


図3.3-(2) 薄い鉛遮蔽材における斜入射光子再生係数の比較 (光子エネルギー: 300keV)

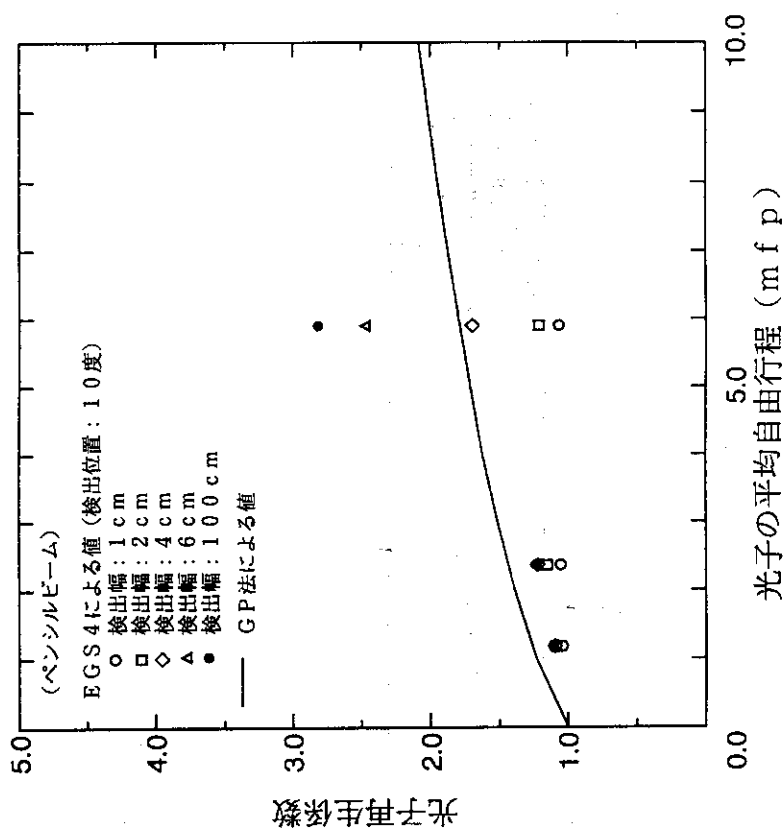


図3.3-(4) 薄い鉛遮蔽材における斜入射光子再生係数の比較 (光子エネルギー: 500keV)

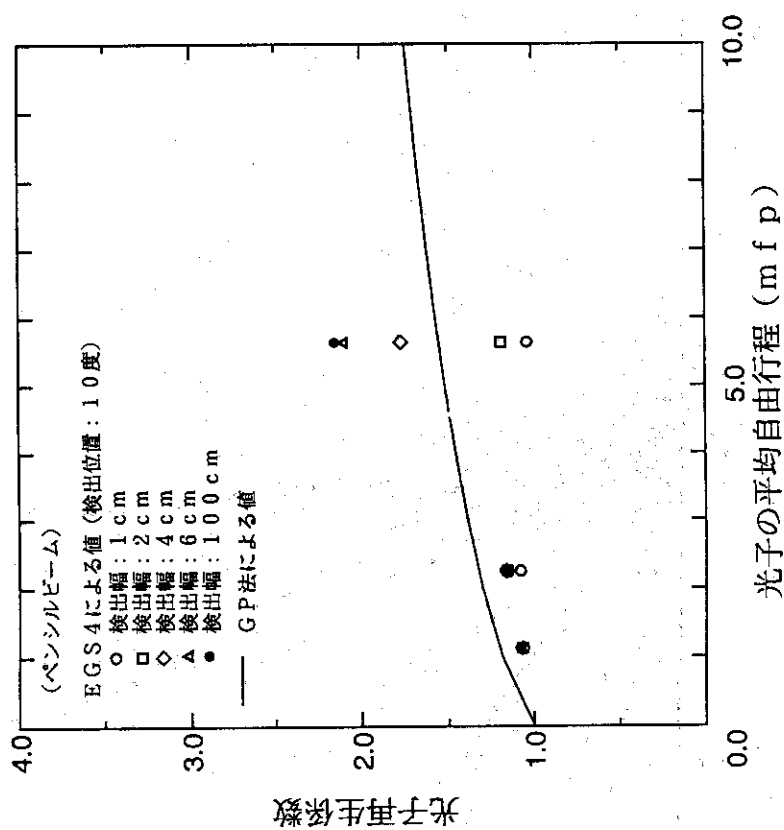


図3.3-(3) 薄い鉛遮蔽材における斜入射光子再生係数の比較 (光子エネルギー: 400keV)



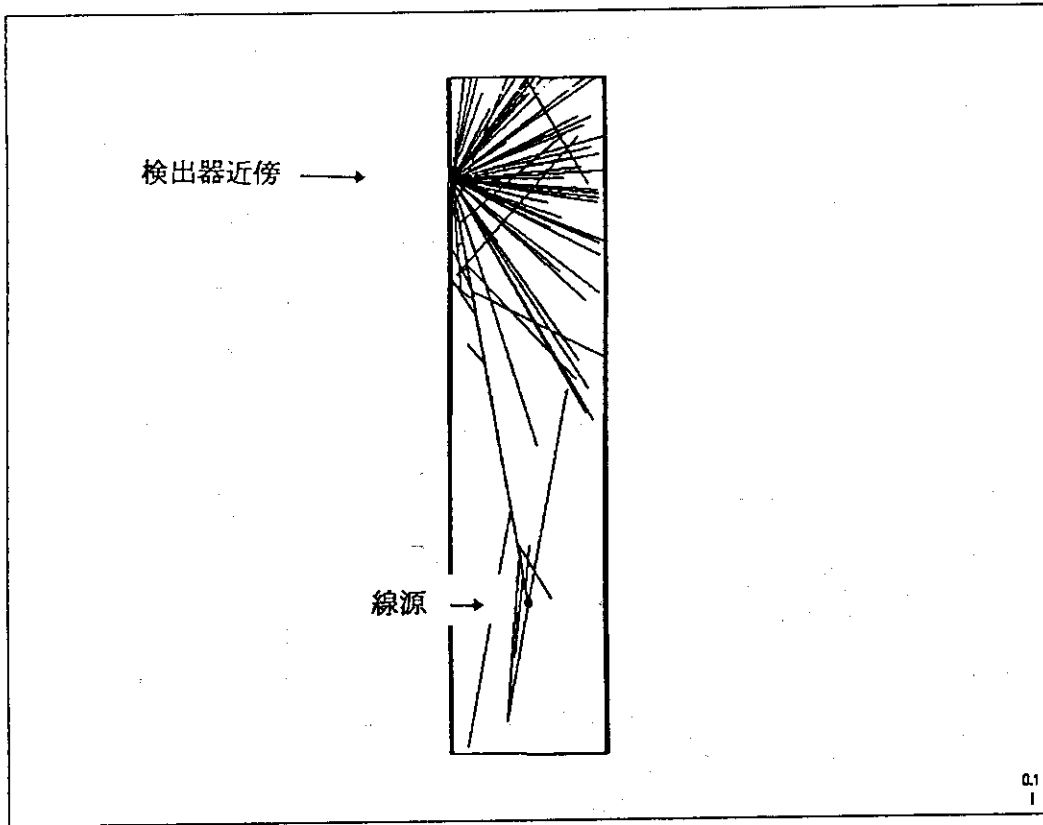


図3.4-1) 散乱線の軌跡 (全体図)

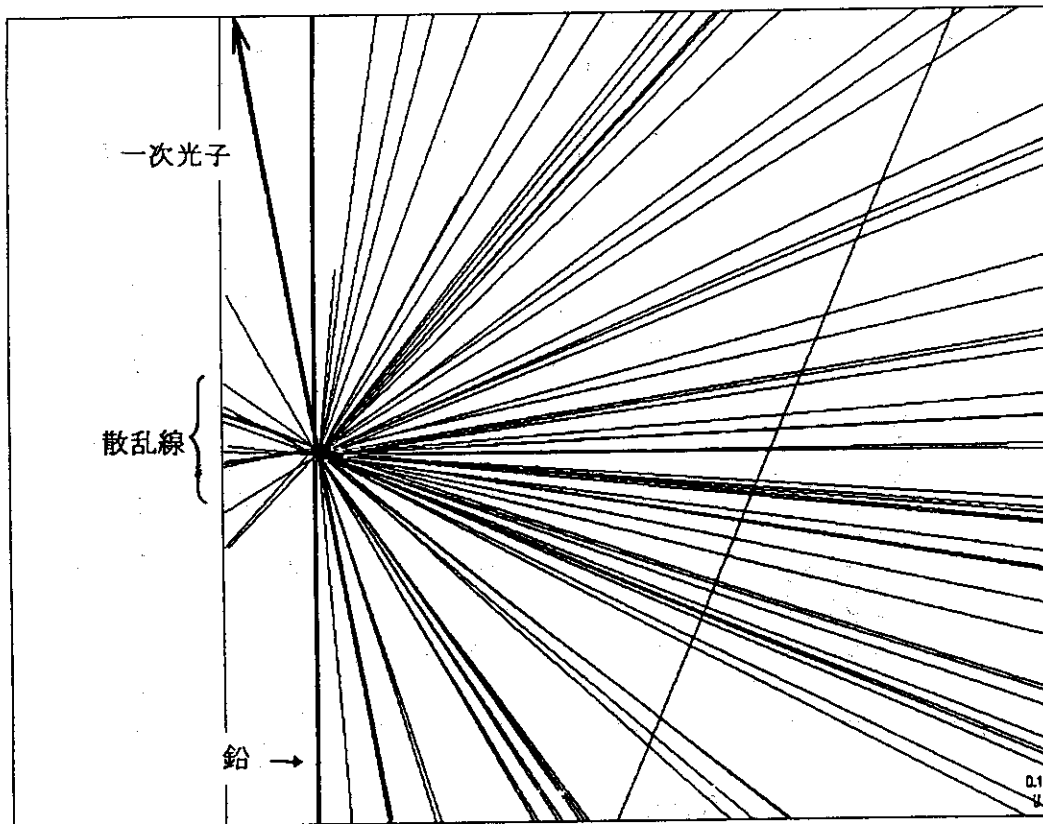


図3.4-2) 散乱線の軌跡 (検出器近傍拡大図)

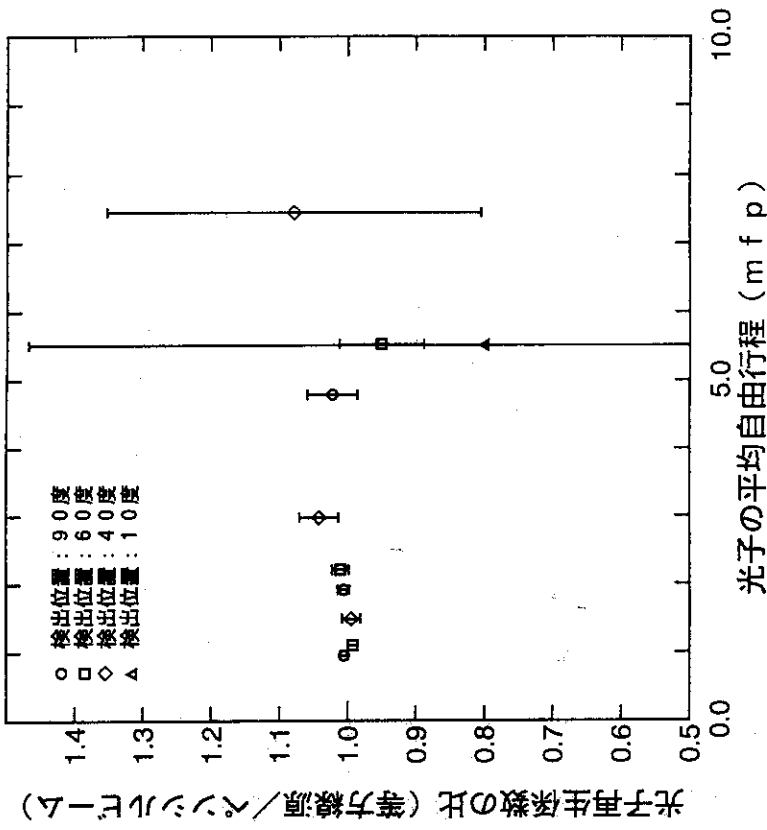


図3.5-2) ペンシルビームと等方線源との光子再生係数の比 (光子エネルギー: 20keV)

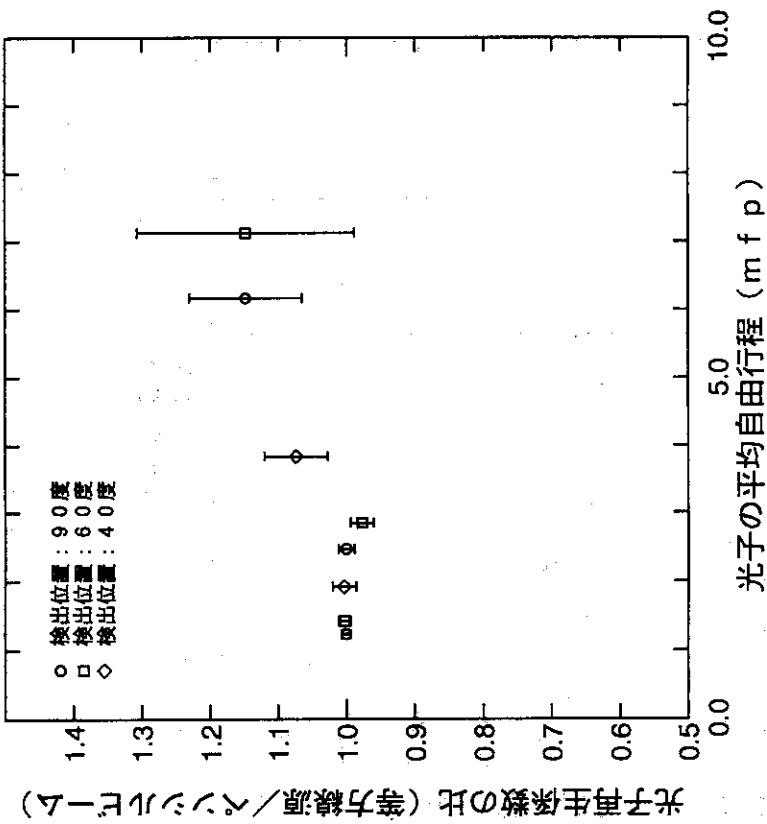


図3.5-1) ペンシルビームと等方線源との光子再生係数の比 (光子エネルギー: 15keV)

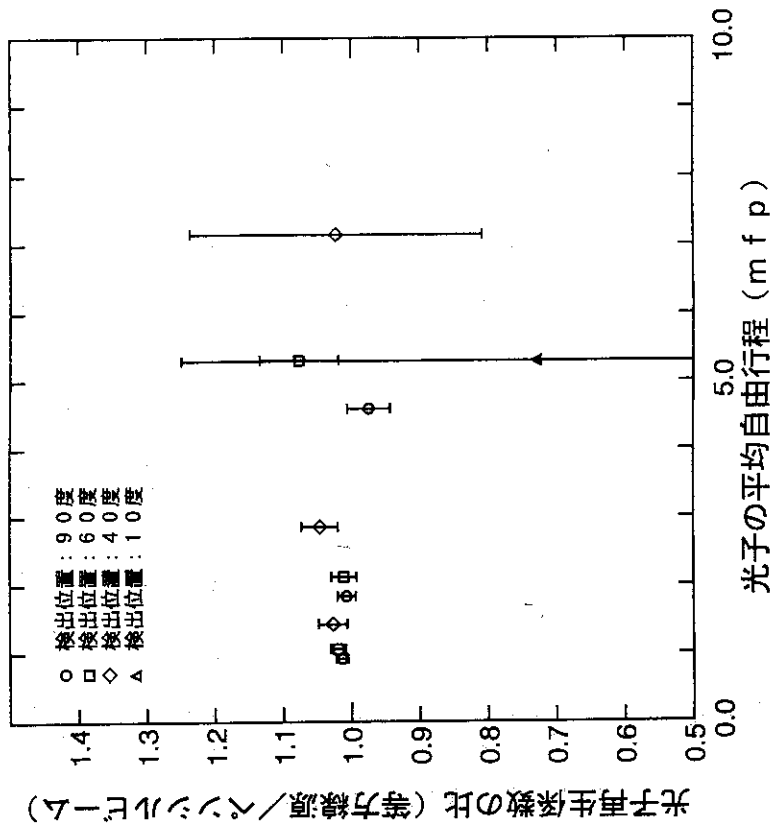


図3.5-4) ペンシルビームと等方線源との光子再生係数の比 (光子エネルギー: 40keV)

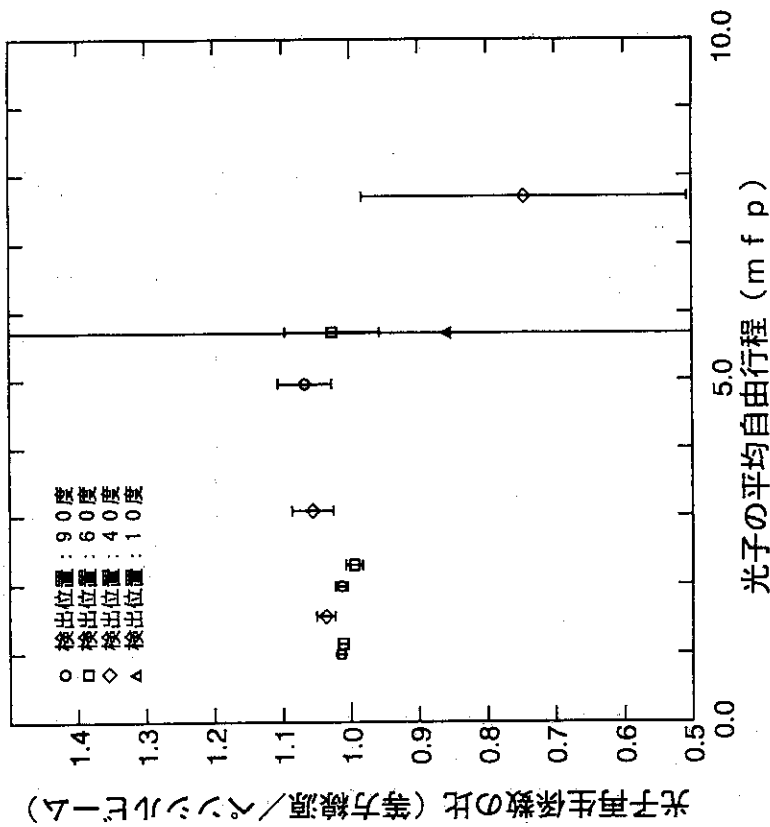


図3.5-3) ペンシルビームと等方線源との光子再生係数の比 (光子エネルギー: 30keV)

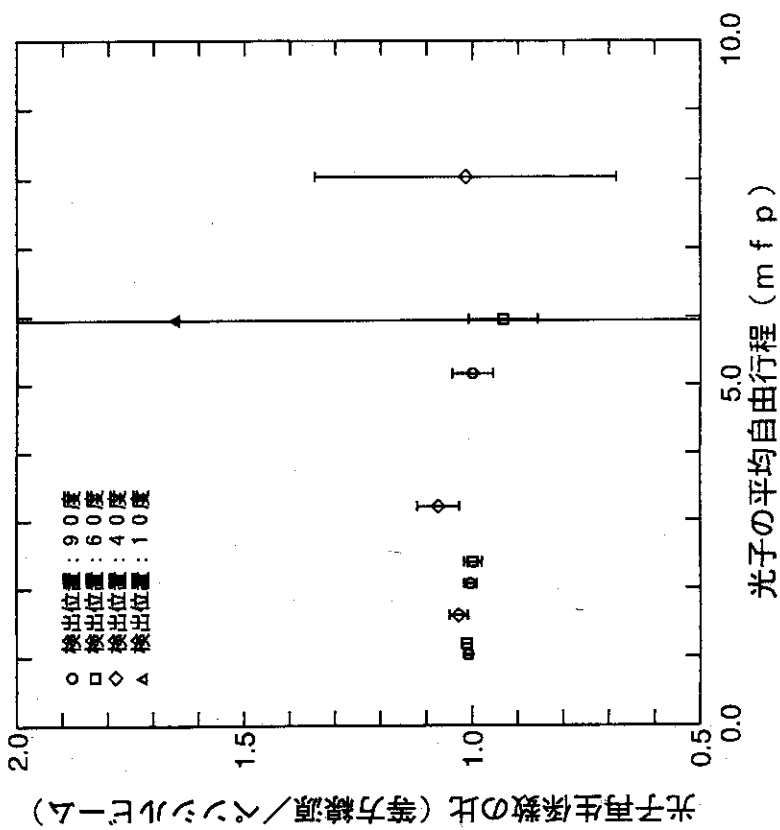


図3.5-6) ペンシルビームと等方線源との光子再生係数の比 (光子エネルギー: 60keV)

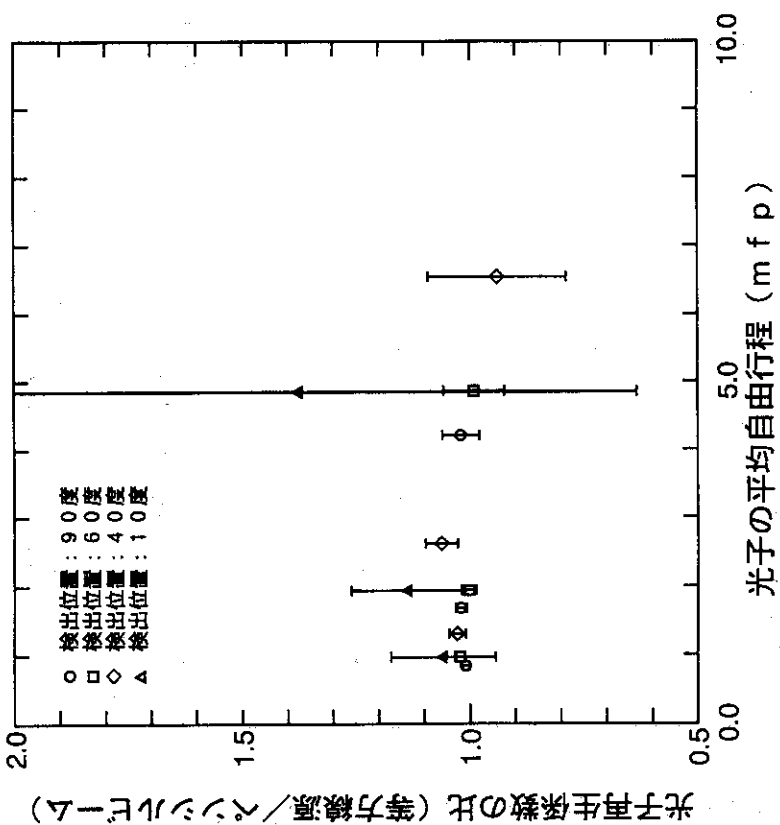


図3.5-5) ペンシルビームと等方線源との光子再生係数の比 (光子エネルギー: 50keV)

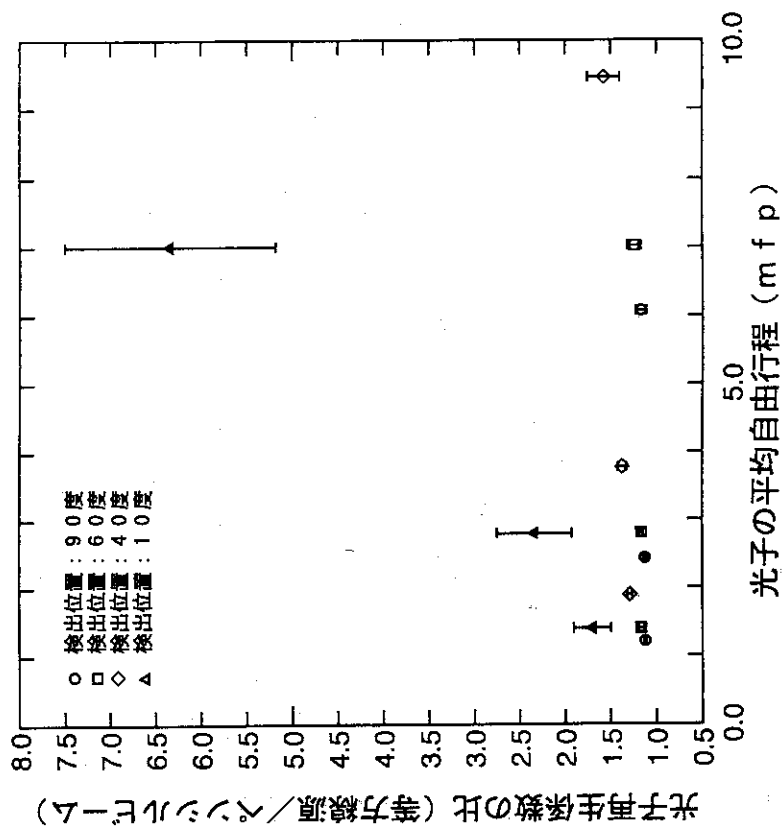


図3.5-8) ペンシルビームと等方線源との光子再生係数の比 (光子エネルギー : 100keV)

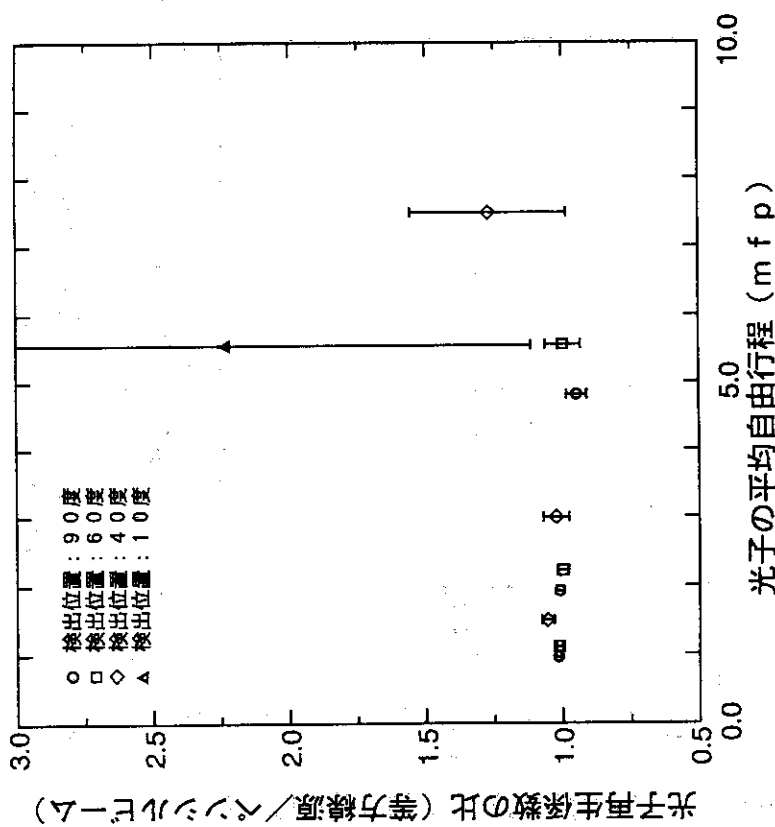


図3.5-7) ペンシルビームと等方線源との光子再生係数の比 (光子エネルギー : 80keV)

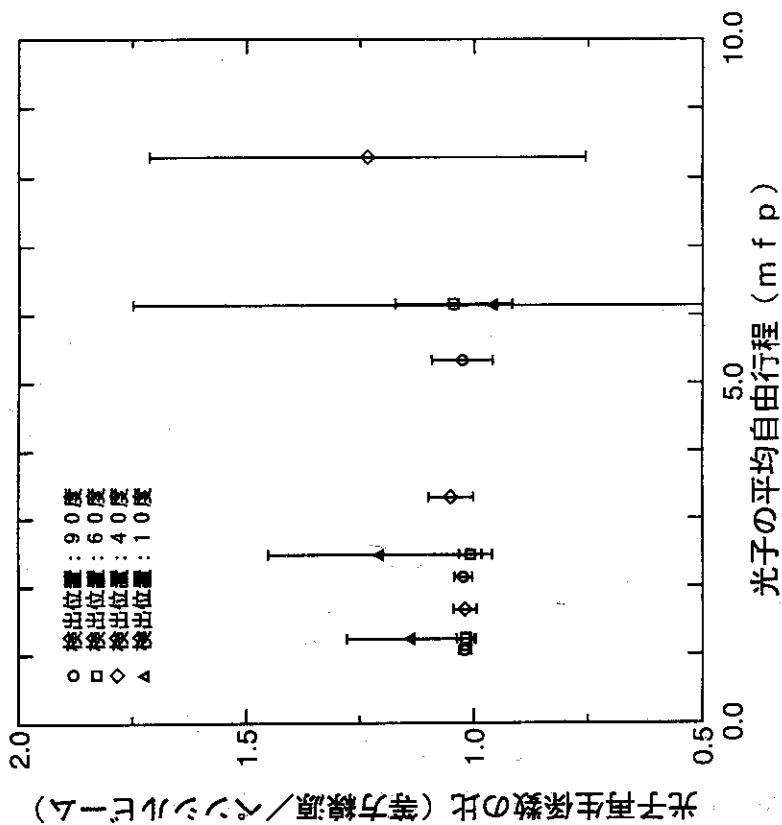


図3.5-10) ペンシルビームと等方線源との光子再生係数の比 (光子エネルギー: 200keV)

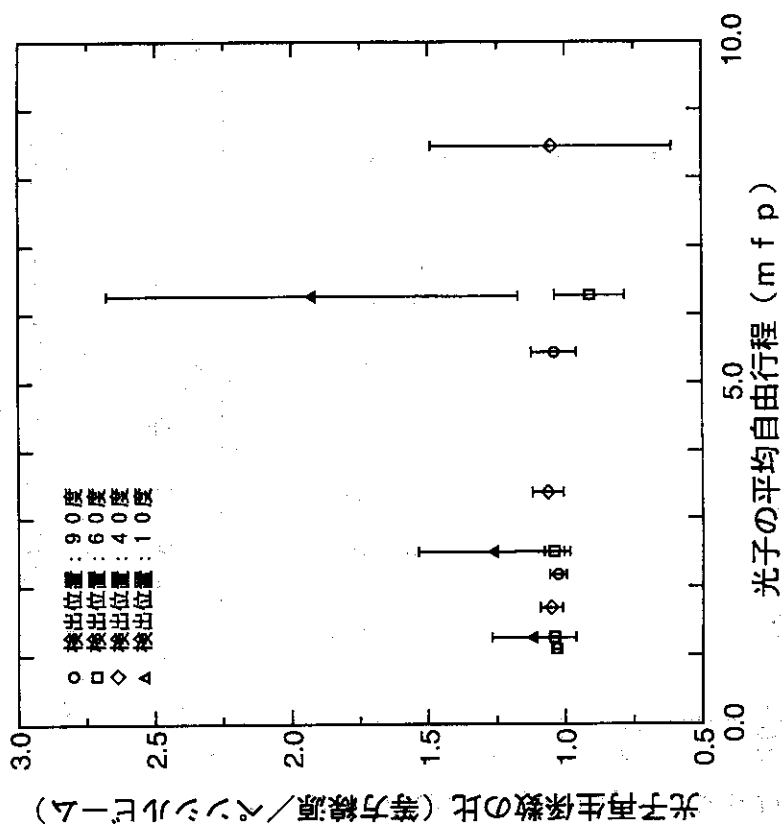


図3.5-9) ペンシルビームと等方線源との光子再生係数の比 (光子エネルギー: 150keV)

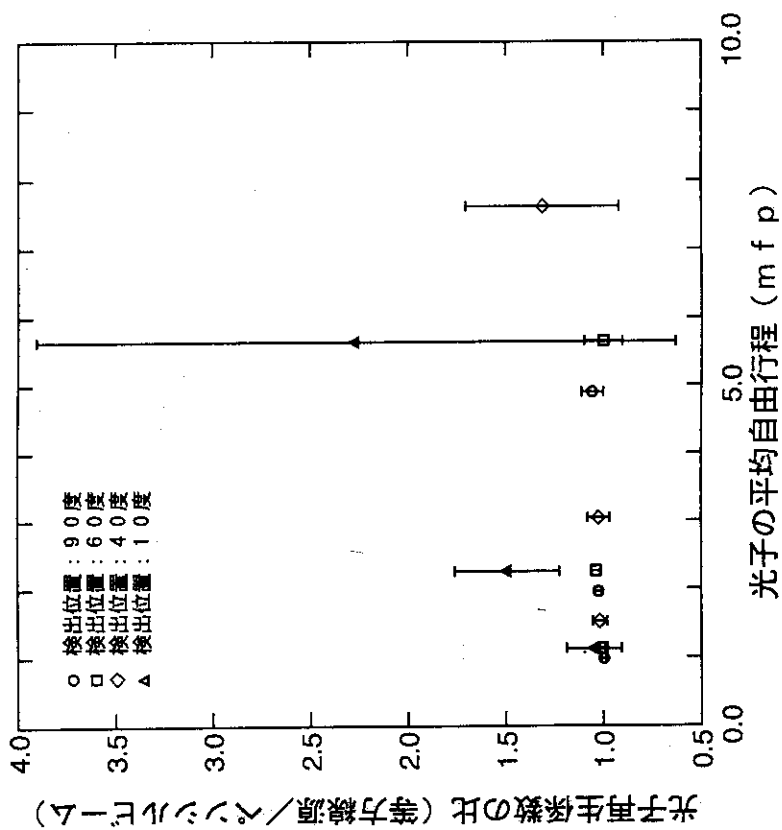


図3.5-10) ペンシルビームと等方線源との光子再生係数の比 (光子エネルギー: 400keV)

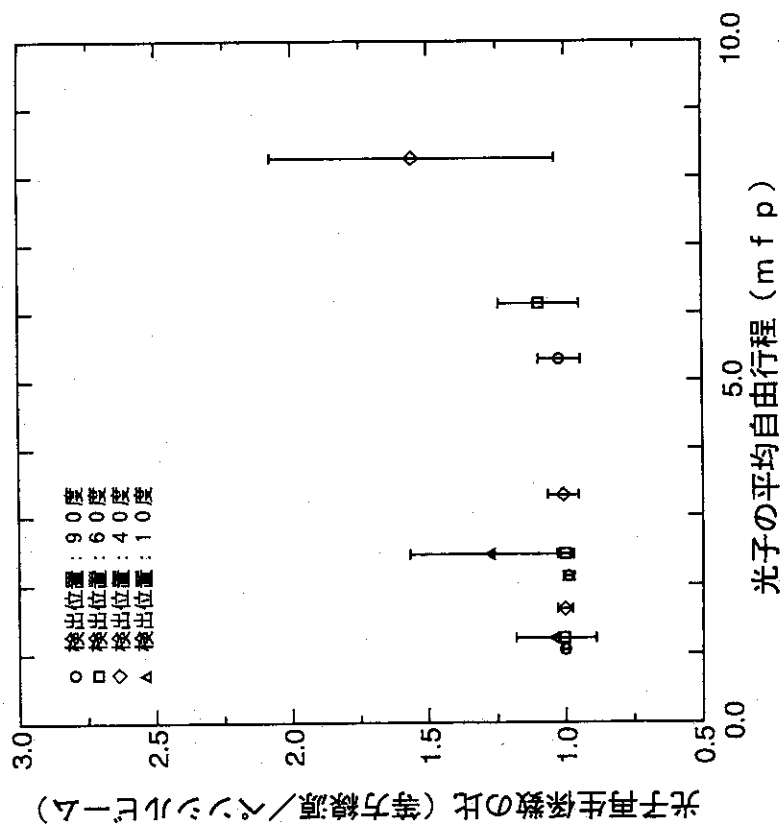


図3.5-11) ペンシルビームと等方線源との光子再生係数の比 (光子エネルギー: 300keV)

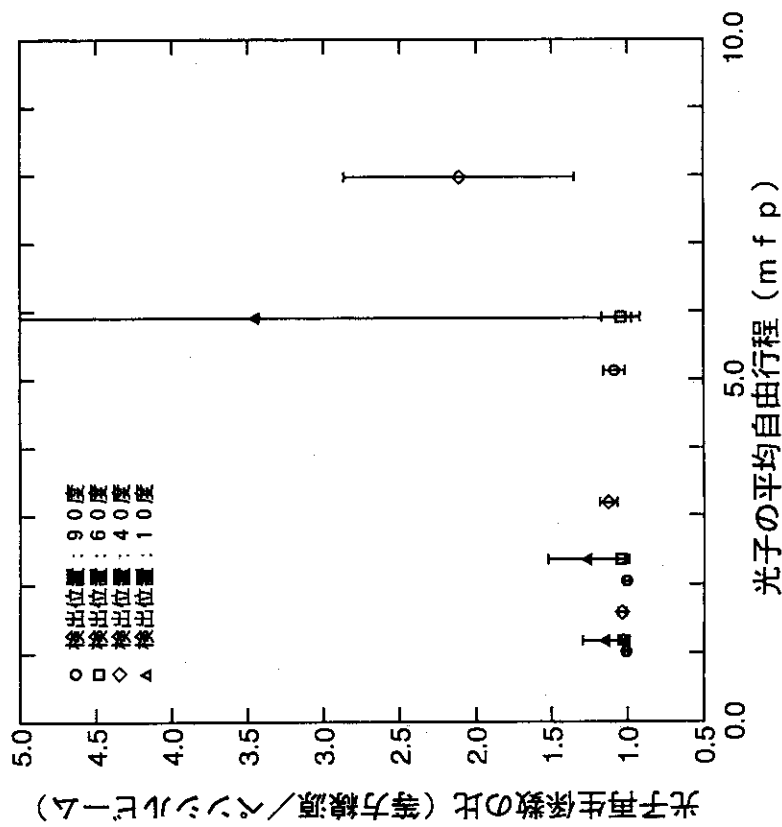


図3.5-13) ペンシルビームと等方線源との光子再生係数の比 (光子エネルギー : 500keV)



## 付録1 EGS4により求めた再生係数の結果

EGS4により求めたペンシルビーム状線源の再生係数の結果を表A-1-(1)～(4)、表A-2-(1)～(4)に示し、点等方線源の再生係数の結果を表A-3と表A-4に示す。蛍光X線を考慮したペンシルビーム状線源の再生係数の結果を表A-5-(1)～(4)に示し、蛍光X線を考慮した点等方線源の再生係数の結果を表A-6に示す。表中のデータは、①線源光子エネルギー (LOWERとUPPERの中点、単位MeV)、②EGS4により求めた再生係数、③Mean free path単位の厚さ、④鉛の厚さ、⑤検出器の幅、⑥検出点の正弦の逆数、⑦結果の分散を示している。表A-1、表A-2と表A-5での光子の放射方向は検出点の角度と同一であるが、表A-3、表A-4と表A-6では等方である。また、表A-7にペンシルビームと点等方線源の場合の光子再生係数の比を示す。

表A-1-(1) EGS4により求めたペンシルビーム状線源の再生係数 (90度)

①		②	③	④	⑤	⑥	⑦
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	1. 008E+00	1. 235E+00	1. 000E-03	1. 000E+00	1. 000E+00	1. 931E-03
1. 750E-02	2. 250E-02	1. 010E+00	9. 578E-01	1. 000E-03	1. 000E+00	1. 000E+00	1. 640E-03
2. 500E-02	3. 500E-02	1. 014E+00	9. 897E-01	3. 000E-03	1. 000E+00	1. 000E+00	1. 644E-03
3. 500E-02	4. 500E-02	1. 013E+00	9. 193E-01	6. 000E-03	1. 000E+00	1. 000E+00	2. 594E-03
4. 500E-02	5. 500E-02	1. 020E+00	8. 420E-01	1. 000E-02	1. 000E+00	1. 000E+00	2. 315E-03
5. 500E-02	6. 500E-02	1. 026E+00	1. 033E+00	2. 000E-02	1. 000E+00	1. 000E+00	3. 159E-03
7. 000E-02	9. 000E-02	1. 036E+00	9. 631E-01	4. 000E-02	1. 000E+00	1. 000E+00	3. 179E-03
9. 000E-02	1. 100E-01	1. 709E+00	1. 217E+00	2. 000E-02	1. 000E+00	1. 000E+00	2. 917E-03
1. 250E-01	1. 750E-01	1. 203E+00	1. 089E+00	5. 000E-02	1. 000E+00	1. 000E+00	8. 034E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	1. 008E+00	1. 235E+00	1. 000E-03	2. 000E+00	1. 000E+00	1. 931E-03
1. 750E-02	2. 250E-02	1. 010E+00	9. 578E-01	1. 000E-03	2. 000E+00	1. 000E+00	1. 640E-03
2. 500E-02	3. 500E-02	1. 014E+00	9. 897E-01	3. 000E-03	2. 000E+00	1. 000E+00	1. 644E-03
3. 500E-02	4. 500E-02	1. 013E+00	9. 193E-01	6. 000E-03	2. 000E+00	1. 000E+00	2. 593E-03
4. 500E-02	5. 500E-02	1. 021E+00	8. 420E-01	1. 000E-02	2. 000E+00	1. 000E+00	2. 314E-03
5. 500E-02	6. 500E-02	1. 026E+00	1. 033E+00	2. 000E-02	2. 000E+00	1. 000E+00	3. 158E-03
7. 000E-02	9. 000E-02	1. 037E+00	9. 631E-01	4. 000E-02	2. 000E+00	1. 000E+00	3. 178E-03
9. 000E-02	1. 100E-01	1. 760E+00	1. 217E+00	2. 000E-02	2. 000E+00	1. 000E+00	2. 875E-03
1. 250E-01	1. 750E-01	1. 208E+00	1. 089E+00	5. 000E-02	2. 000E+00	1. 000E+00	8. 018E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	1. 012E+00	1. 235E+00	1. 000E-03	1. 000E+01	1. 000E+00	1. 927E-03
1. 750E-02	2. 250E-02	1. 016E+00	9. 578E-01	1. 000E-03	1. 000E+01	1. 000E+00	1. 635E-03
2. 500E-02	3. 500E-02	1. 020E+00	9. 897E-01	3. 000E-03	1. 000E+01	1. 000E+00	1. 639E-03
3. 500E-02	4. 500E-02	1. 019E+00	9. 193E-01	6. 000E-03	1. 000E+01	1. 000E+00	2. 585E-03
4. 500E-02	5. 500E-02	1. 028E+00	8. 420E-01	1. 000E-02	1. 000E+01	1. 000E+00	2. 306E-03
5. 500E-02	6. 500E-02	1. 032E+00	1. 033E+00	2. 000E-02	1. 000E+01	1. 000E+00	3. 149E-03
7. 000E-02	9. 000E-02	1. 043E+00	9. 631E-01	4. 000E-02	1. 000E+01	1. 000E+00	3. 169E-03
9. 000E-02	1. 100E-01	1. 798E+00	1. 217E+00	2. 000E-02	1. 000E+01	1. 000E+00	2. 844E-03
1. 250E-01	1. 750E-01	1. 215E+00	1. 089E+00	5. 000E-02	1. 000E+01	1. 000E+00	7. 996E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	1. 013E+00	1. 235E+00	1. 000E-03	2. 000E+01	1. 000E+00	1. 926E-03
1. 750E-02	2. 250E-02	1. 017E+00	9. 578E-01	1. 000E-03	2. 000E+01	1. 000E+00	1. 634E-03
2. 500E-02	3. 500E-02	1. 021E+00	9. 897E-01	3. 000E-03	2. 000E+01	1. 000E+00	1. 638E-03
3. 500E-02	4. 500E-02	1. 021E+00	9. 193E-01	6. 000E-03	2. 000E+01	1. 000E+00	2. 584E-03
4. 500E-02	5. 500E-02	1. 029E+00	8. 420E-01	1. 000E-02	2. 000E+01	1. 000E+00	2. 305E-03
5. 500E-02	6. 500E-02	1. 033E+00	1. 033E+00	2. 000E-02	2. 000E+01	1. 000E+00	3. 148E-03
7. 000E-02	9. 000E-02	1. 044E+00	9. 631E-01	4. 000E-02	2. 000E+01	1. 000E+00	3. 167E-03
9. 000E-02	1. 100E-01	1. 823E+00	1. 217E+00	2. 000E-02	2. 000E+01	1. 000E+00	2. 824E-03
1. 250E-01	1. 750E-01	1. 218E+00	1. 089E+00	5. 000E-02	2. 000E+01	1. 000E+00	7. 986E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	1. 017E+00	1. 235E+00	1. 000E-03	1. 000E+02	1. 000E+00	1. 922E-03
1. 750E-02	2. 250E-02	1. 017E+00	9. 578E-01	1. 000E-03	1. 000E+02	1. 000E+00	2. 763E-03
2. 500E-02	3. 500E-02	1. 020E+00	9. 897E-01	3. 000E-03	1. 000E+02	1. 000E+00	2. 658E-03
3. 500E-02	4. 500E-02	1. 019E+00	9. 193E-01	6. 000E-03	1. 000E+02	1. 000E+00	2. 586E-03
4. 500E-02	5. 500E-02	1. 026E+00	8. 420E-01	1. 000E-02	1. 000E+02	1. 000E+00	3. 230E-03
5. 500E-02	6. 500E-02	1. 032E+00	1. 033E+00	2. 000E-02	1. 000E+02	1. 000E+00	3. 149E-03
7. 000E-02	9. 000E-02	1. 041E+00	9. 631E-01	4. 000E-02	1. 000E+02	1. 000E+00	3. 171E-03
9. 000E-02	1. 100E-01	1. 949E+00	1. 217E+00	2. 000E-02	1. 000E+02	1. 000E+00	2. 732E-03

1. 250E-01	1. 750E-01	1. 230E+00	1. 089E+00	5. 000E-02	1. 000E+02	1. 000E+00	7. 947E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	1. 019E+00	2. 469E+00	2. 000E-03	1. 000E+00	1. 000E+00	3. 559E-03
1. 750E-02	2. 250E-02	1. 026E+00	1. 916E+00	2. 000E-03	1. 000E+00	1. 000E+00	2. 627E-03
2. 500E-02	3. 500E-02	1. 035E+00	1. 979E+00	6. 000E-03	1. 000E+00	1. 000E+00	2. 669E-03
3. 500E-02	4. 500E-02	1. 030E+00	1. 839E+00	1. 200E-02	1. 000E+00	1. 000E+00	4. 072E-03
4. 500E-02	5. 500E-02	1. 039E+00	1. 684E+00	2. 000E-02	1. 000E+00	1. 000E+00	3. 494E-03
5. 500E-02	6. 500E-02	1. 049E+00	2. 066E+00	4. 000E-02	1. 000E+00	1. 000E+00	5. 235E-03
7. 000E-02	9. 000E-02	1. 063E+00	1. 926E+00	8. 000E-02	1. 000E+00	1. 000E+00	5. 080E-03
9. 000E-02	1. 100E-01	2. 478E+00	2. 433E+00	4. 000E-02	1. 000E+00	1. 000E+00	4. 451E-03
1. 250E-01	1. 750E-01	1. 256E+00	2. 177E+00	1. 000E-01	1. 000E+00	1. 000E+00	1. 074E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	1. 019E+00	2. 469E+00	2. 000E-03	2. 000E+00	1. 000E+00	3. 559E-03
1. 750E-02	2. 250E-02	1. 026E+00	1. 916E+00	2. 000E-03	2. 000E+00	1. 000E+00	4. 439E-03
2. 500E-02	3. 500E-02	1. 036E+00	1. 979E+00	6. 000E-03	2. 000E+00	1. 000E+00	2. 668E-03
3. 500E-02	4. 500E-02	1. 031E+00	1. 839E+00	1. 200E-02	2. 000E+00	1. 000E+00	4. 071E-03
4. 500E-02	5. 500E-02	1. 040E+00	1. 684E+00	2. 000E-02	2. 000E+00	1. 000E+00	3. 493E-03
5. 500E-02	6. 500E-02	1. 050E+00	2. 066E+00	4. 000E-02	2. 000E+00	1. 000E+00	5. 233E-03
7. 000E-02	9. 000E-02	1. 063E+00	1. 926E+00	8. 000E-02	2. 000E+00	1. 000E+00	5. 079E-03
9. 000E-02	1. 100E-01	2. 517E+00	2. 433E+00	4. 000E-02	2. 000E+00	1. 000E+00	4. 417E-03
1. 250E-01	1. 750E-01	1. 269E+00	2. 177E+00	1. 000E-01	2. 000E+00	1. 000E+00	1. 069E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	1. 022E+00	2. 469E+00	2. 000E-03	1. 000E+01	1. 000E+00	3. 554E-03
1. 750E-02	2. 250E-02	1. 028E+00	1. 916E+00	2. 000E-03	1. 000E+01	1. 000E+00	4. 435E-03
2. 500E-02	3. 500E-02	1. 038E+00	1. 979E+00	6. 000E-03	1. 000E+01	1. 000E+00	2. 666E-03
3. 500E-02	4. 500E-02	1. 032E+00	1. 839E+00	1. 200E-02	1. 000E+01	1. 000E+00	4. 068E-03
4. 500E-02	5. 500E-02	1. 041E+00	1. 684E+00	2. 000E-02	1. 000E+01	1. 000E+00	3. 492E-03
5. 500E-02	6. 500E-02	1. 051E+00	2. 066E+00	4. 000E-02	1. 000E+01	1. 000E+00	5. 229E-03
7. 000E-02	9. 000E-02	1. 065E+00	1. 926E+00	8. 000E-02	1. 000E+01	1. 000E+00	5. 076E-03
9. 000E-02	1. 100E-01	2. 554E+00	2. 433E+00	4. 000E-02	1. 000E+01	1. 000E+00	4. 385E-03
1. 250E-01	1. 750E-01	1. 274E+00	2. 177E+00	1. 000E-01	1. 000E+01	1. 000E+00	1. 067E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	1. 023E+00	2. 469E+00	2. 000E-03	2. 000E+01	1. 000E+00	3. 552E-03
1. 750E-02	2. 250E-02	1. 029E+00	1. 916E+00	2. 000E-03	2. 000E+01	1. 000E+00	4. 433E-03
2. 500E-02	3. 500E-02	1. 039E+00	1. 979E+00	6. 000E-03	2. 000E+01	1. 000E+00	2. 665E-03
3. 500E-02	4. 500E-02	1. 033E+00	1. 839E+00	1. 200E-02	2. 000E+01	1. 000E+00	4. 066E-03
4. 500E-02	5. 500E-02	1. 042E+00	1. 684E+00	2. 000E-02	2. 000E+01	1. 000E+00	3. 490E-03
5. 500E-02	6. 500E-02	1. 052E+00	2. 066E+00	4. 000E-02	2. 000E+01	1. 000E+00	5. 227E-03
7. 000E-02	9. 000E-02	1. 065E+00	1. 926E+00	8. 000E-02	2. 000E+01	1. 000E+00	5. 075E-03
9. 000E-02	1. 100E-01	2. 593E+00	2. 433E+00	4. 000E-02	2. 000E+01	1. 000E+00	4. 352E-03
1. 250E-01	1. 750E-01	1. 276E+00	2. 177E+00	1. 000E-01	2. 000E+01	1. 000E+00	1. 066E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	1. 024E+00	2. 469E+00	2. 000E-03	1. 000E+02	1. 000E+00	3. 551E-03
1. 750E-02	2. 250E-02	1. 031E+00	1. 916E+00	2. 000E-03	1. 000E+02	1. 000E+00	4. 427E-03
2. 500E-02	3. 500E-02	1. 041E+00	1. 979E+00	6. 000E-03	1. 000E+02	1. 000E+00	4. 317E-03
3. 500E-02	4. 500E-02	1. 037E+00	1. 839E+00	1. 200E-02	1. 000E+02	1. 000E+00	4. 060E-03
4. 500E-02	5. 500E-02	1. 047E+00	1. 684E+00	2. 000E-02	1. 000E+02	1. 000E+00	3. 482E-03
5. 500E-02	6. 500E-02	1. 053E+00	2. 066E+00	4. 000E-02	1. 000E+02	1. 000E+00	5. 226E-03
7. 000E-02	9. 000E-02	1. 067E+00	1. 926E+00	8. 000E-02	1. 000E+02	1. 000E+00	5. 071E-03
9. 000E-02	1. 100E-01	2. 805E+00	2. 433E+00	4. 000E-02	1. 000E+02	1. 000E+00	4. 184E-03
1. 250E-01	1. 750E-01	1. 286E+00	2. 177E+00	1. 000E-01	1. 000E+02	1. 000E+00	1. 062E-02

ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1. /SIN	SIGMA
LOWER	UPPER						
1. 250E-02	1. 750E-02	9. 839E-01	6. 173E+00	5. 000E-03	1. 000E+00	1. 000E+00	2. 308E-02
1. 750E-02	2. 250E-02	1. 048E+00	4. 789E+00	5. 000E-03	1. 000E+00	1. 000E+00	1. 094E-02
2. 500E-02	3. 500E-02	1. 084E+00	4. 949E+00	1. 500E-02	1. 000E+00	1. 000E+00	1. 151E-02
3. 500E-02	4. 500E-02	1. 080E+00	4. 596E+00	3. 000E-02	1. 000E+00	1. 000E+00	9. 645E-03
4. 500E-02	5. 500E-02	1. 093E+00	4. 210E+00	5. 000E-02	1. 000E+00	1. 000E+00	1. 205E-02
5. 500E-02	6. 500E-02	1. 092E+00	5. 165E+00	1. 000E-01	1. 000E+00	1. 000E+00	1. 852E-02
7. 000E-02	9. 000E-02	1. 127E+00	4. 815E+00	2. 000E-01	1. 000E+00	1. 000E+00	1. 793E-02
9. 000E-02	1. 100E-01	7. 825E+00	6. 083E+00	1. 000E-01	1. 000E+00	1. 000E+00	1. 386E-02
1. 250E-01	1. 750E-01	1. 337E+00	5. 443E+00	2. 500E-01	1. 000E+00	1. 000E+00	2. 823E-02

ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1. /SIN	SIGMA
LOWER	UPPER						
1. 250E-02	1. 750E-02	9. 839E-01	6. 173E+00	5. 000E-03	2. 000E+00	1. 000E+00	2. 308E-02
1. 750E-02	2. 250E-02	1. 048E+00	4. 789E+00	5. 000E-03	2. 000E+00	1. 000E+00	1. 094E-02
2. 500E-02	3. 500E-02	1. 084E+00	4. 949E+00	1. 500E-02	2. 000E+00	1. 000E+00	1. 151E-02
3. 500E-02	4. 500E-02	1. 080E+00	4. 596E+00	3. 000E-02	2. 000E+00	1. 000E+00	9. 644E-03
4. 500E-02	5. 500E-02	1. 094E+00	4. 210E+00	5. 000E-02	2. 000E+00	1. 000E+00	1. 204E-02
5. 500E-02	6. 500E-02	1. 093E+00	5. 165E+00	1. 000E-01	2. 000E+00	1. 000E+00	1. 852E-02
7. 000E-02	9. 000E-02	1. 127E+00	4. 815E+00	2. 000E-01	2. 000E+00	1. 000E+00	1. 792E-02
9. 000E-02	1. 100E-01	7. 959E+00	6. 083E+00	1. 000E-01	2. 000E+00	1. 000E+00	1. 375E-02
1. 250E-01	1. 750E-01	1. 343E+00	5. 443E+00	2. 500E-01	2. 000E+00	1. 000E+00	2. 817E-02

ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1. /SIN	SIGMA
LOWER	UPPER						
1. 250E-02	1. 750E-02	9. 845E-01	6. 173E+00	5. 000E-03	1. 000E+01	1. 000E+00	2. 308E-02
1. 750E-02	2. 250E-02	1. 049E+00	4. 789E+00	5. 000E-03	1. 000E+01	1. 000E+00	1. 093E-02
2. 500E-02	3. 500E-02	1. 085E+00	4. 949E+00	1. 500E-02	1. 000E+01	1. 000E+00	1. 151E-02
3. 500E-02	4. 500E-02	1. 081E+00	4. 596E+00	3. 000E-02	1. 000E+01	1. 000E+00	9. 642E-03
4. 500E-02	5. 500E-02	1. 094E+00	4. 210E+00	5. 000E-02	1. 000E+01	1. 000E+00	1. 204E-02
5. 500E-02	6. 500E-02	1. 093E+00	5. 165E+00	1. 000E-01	1. 000E+01	1. 000E+00	1. 852E-02
7. 000E-02	9. 000E-02	1. 128E+00	4. 815E+00	2. 000E-01	1. 000E+01	1. 000E+00	1. 792E-02
9. 000E-02	1. 100E-01	8. 144E+00	6. 083E+00	1. 000E-01	1. 000E+01	1. 000E+00	1. 359E-02
1. 250E-01	1. 750E-01	1. 344E+00	5. 443E+00	2. 500E-01	1. 000E+01	1. 000E+00	2. 816E-02

ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1. /SIN	SIGMA
LOWER	UPPER						
1. 250E-02	1. 750E-02	9. 856E-01	6. 173E+00	5. 000E-03	2. 000E+01	1. 000E+00	2. 306E-02
1. 750E-02	2. 250E-02	1. 049E+00	4. 789E+00	5. 000E-03	2. 000E+01	1. 000E+00	1. 093E-02
2. 500E-02	3. 500E-02	1. 085E+00	4. 949E+00	1. 500E-02	2. 000E+01	1. 000E+00	1. 150E-02
3. 500E-02	4. 500E-02	1. 081E+00	4. 596E+00	3. 000E-02	2. 000E+01	1. 000E+00	1. 578E-02
4. 500E-02	5. 500E-02	1. 094E+00	4. 210E+00	5. 000E-02	2. 000E+01	1. 000E+00	1. 204E-02
5. 500E-02	6. 500E-02	1. 093E+00	5. 165E+00	1. 000E-01	2. 000E+01	1. 000E+00	1. 851E-02
7. 000E-02	9. 000E-02	1. 128E+00	4. 815E+00	2. 000E-01	2. 000E+01	1. 000E+00	1. 791E-02
9. 000E-02	1. 100E-01	8. 337E+00	6. 083E+00	1. 000E-01	2. 000E+01	1. 000E+00	1. 343E-02
1. 250E-01	1. 750E-01	1. 345E+00	5. 443E+00	2. 500E-01	2. 000E+01	1. 000E+00	2. 815E-02

ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1. /SIN	SIGMA
LOWER	UPPER						
1. 250E-02	1. 750E-02	9. 862E-01	6. 173E+00	5. 000E-03	1. 000E+02	1. 000E+00	2. 306E-02
1. 750E-02	2. 250E-02	1. 050E+00	4. 789E+00	5. 000E-03	1. 000E+02	1. 000E+00	1. 092E-02
2. 500E-02	3. 500E-02	1. 086E+00	4. 949E+00	1. 500E-02	1. 000E+02	1. 000E+00	1. 150E-02
3. 500E-02	4. 500E-02	1. 083E+00	4. 596E+00	3. 000E-02	1. 000E+02	1. 000E+00	1. 577E-02
4. 500E-02	5. 500E-02	1. 095E+00	4. 210E+00	5. 000E-02	1. 000E+02	1. 000E+00	1. 204E-02
5. 500E-02	6. 500E-02	1. 094E+00	5. 165E+00	1. 000E-01	1. 000E+02	1. 000E+00	1. 851E-02
7. 000E-02	9. 000E-02	1. 128E+00	4. 815E+00	2. 000E-01	1. 000E+02	1. 000E+00	1. 791E-02
9. 000E-02	1. 100E-01	9. 432E+00	6. 083E+00	1. 000E-01	1. 000E+02	1. 000E+00	1. 263E-02
1. 250E-01	1. 750E-01	1. 349E+00	5. 443E+00	2. 500E-01	1. 000E+02	1. 000E+00	2. 811E-02

表A-1-(2) EGS 4により求めたペンシルビーム状線源の再生係数 (60度)

①		②	③	④	⑤	⑥	⑦
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	1. 010E+00	1. 426E+00	1. 000E-03	1. 000E+00	1. 155E+00	2. 136E-03
1. 750E-02	2. 250E-02	1. 013E+00	1. 106E+00	1. 000E-03	1. 000E+00	1. 155E+00	1. 769E-03
2. 500E-02	3. 500E-02	1. 017E+00	1. 143E+00	3. 000E-03	1. 000E+00	1. 155E+00	1. 775E-03
3. 500E-02	4. 500E-02	1. 015E+00	1. 062E+00	6. 000E-03	1. 000E+00	1. 155E+00	2. 785E-03
4. 500E-02	5. 500E-02	1. 021E+00	9. 723E-01	1. 000E-02	1. 000E+00	1. 155E+00	2. 472E-03
5. 500E-02	6. 500E-02	1. 028E+00	1. 193E+00	2. 000E-02	1. 000E+00	1. 155E+00	3. 421E-03
7. 000E-02	9. 000E-02	1. 038E+00	1. 112E+00	4. 000E-02	1. 000E+00	1. 155E+00	3. 424E-03
9. 000E-02	1. 100E-01	1. 774E+00	1. 405E+00	2. 000E-02	1. 000E+00	1. 155E+00	6. 783E-03
1. 250E-01	1. 750E-01	1. 215E+00	1. 257E+00	5. 000E-02	1. 000E+00	1. 155E+00	8. 366E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	1. 011E+00	1. 426E+00	1. 000E-03	2. 000E+00	1. 155E+00	2. 136E-03
1. 750E-02	2. 250E-02	1. 013E+00	1. 106E+00	1. 000E-03	2. 000E+00	1. 155E+00	1. 769E-03
2. 500E-02	3. 500E-02	1. 017E+00	1. 143E+00	3. 000E-03	2. 000E+00	1. 155E+00	1. 775E-03
3. 500E-02	4. 500E-02	1. 015E+00	1. 062E+00	6. 000E-03	2. 000E+00	1. 155E+00	2. 784E-03
4. 500E-02	5. 500E-02	1. 022E+00	9. 723E-01	1. 000E-02	2. 000E+00	1. 155E+00	2. 471E-03
5. 500E-02	6. 500E-02	1. 028E+00	1. 193E+00	2. 000E-02	2. 000E+00	1. 155E+00	3. 420E-03
7. 000E-02	9. 000E-02	1. 039E+00	1. 112E+00	4. 000E-02	2. 000E+00	1. 155E+00	3. 423E-03
9. 000E-02	1. 100E-01	1. 827E+00	1. 405E+00	2. 000E-02	2. 000E+00	1. 155E+00	6. 686E-03
1. 250E-01	1. 750E-01	1. 221E+00	1. 257E+00	5. 000E-02	2. 000E+00	1. 155E+00	8. 348E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	1. 012E+00	1. 426E+00	1. 000E-03	1. 000E+01	1. 155E+00	2. 134E-03
1. 750E-02	2. 250E-02	1. 015E+00	1. 106E+00	1. 000E-03	1. 000E+01	1. 155E+00	1. 768E-03
2. 500E-02	3. 500E-02	1. 018E+00	1. 143E+00	3. 000E-03	1. 000E+01	1. 155E+00	2. 877E-03
3. 500E-02	4. 500E-02	1. 017E+00	1. 062E+00	6. 000E-03	1. 000E+01	1. 155E+00	2. 782E-03
4. 500E-02	5. 500E-02	1. 023E+00	9. 723E-01	1. 000E-02	1. 000E+01	1. 155E+00	2. 469E-03
5. 500E-02	6. 500E-02	1. 030E+00	1. 193E+00	2. 000E-02	1. 000E+01	1. 155E+00	3. 417E-03
7. 000E-02	9. 000E-02	1. 040E+00	1. 112E+00	4. 000E-02	1. 000E+01	1. 155E+00	3. 421E-03
9. 000E-02	1. 100E-01	1. 866E+00	1. 405E+00	2. 000E-02	1. 000E+01	1. 155E+00	6. 615E-03
1. 250E-01	1. 750E-01	1. 224E+00	1. 257E+00	5. 000E-02	1. 000E+01	1. 155E+00	8. 336E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	1. 013E+00	1. 426E+00	1. 000E-03	2. 000E+01	1. 155E+00	2. 133E-03
1. 750E-02	2. 250E-02	1. 016E+00	1. 106E+00	1. 000E-03	2. 000E+01	1. 155E+00	1. 767E-03
2. 500E-02	3. 500E-02	1. 019E+00	1. 143E+00	3. 000E-03	2. 000E+01	1. 155E+00	2. 875E-03
3. 500E-02	4. 500E-02	1. 018E+00	1. 062E+00	6. 000E-03	2. 000E+01	1. 155E+00	2. 780E-03
4. 500E-02	5. 500E-02	1. 025E+00	9. 723E-01	1. 000E-02	2. 000E+01	1. 155E+00	2. 467E-03
5. 500E-02	6. 500E-02	1. 031E+00	1. 193E+00	2. 000E-02	2. 000E+01	1. 155E+00	3. 415E-03
7. 000E-02	9. 000E-02	1. 041E+00	1. 112E+00	4. 000E-02	2. 000E+01	1. 155E+00	3. 419E-03
9. 000E-02	1. 100E-01	1. 894E+00	1. 405E+00	2. 000E-02	2. 000E+01	1. 155E+00	6. 565E-03
1. 250E-01	1. 750E-01	1. 228E+00	1. 257E+00	5. 000E-02	2. 000E+01	1. 155E+00	8. 325E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	1. 020E+00	1. 426E+00	1. 000E-03	1. 000E+02	1. 155E+00	2. 126E-03
1. 750E-02	2. 250E-02	1. 019E+00	1. 106E+00	1. 000E-03	1. 000E+02	1. 155E+00	2. 859E-03
2. 500E-02	3. 500E-02	1. 022E+00	1. 143E+00	3. 000E-03	1. 000E+02	1. 155E+00	2. 871E-03
3. 500E-02	4. 500E-02	1. 020E+00	1. 062E+00	6. 000E-03	1. 000E+02	1. 155E+00	2. 778E-03
4. 500E-02	5. 500E-02	1. 026E+00	9. 723E-01	1. 000E-02	1. 000E+02	1. 155E+00	2. 465E-03
5. 500E-02	6. 500E-02	1. 033E+00	1. 193E+00	2. 000E-02	1. 000E+02	1. 155E+00	3. 411E-03
7. 000E-02	9. 000E-02	1. 042E+00	1. 112E+00	4. 000E-02	1. 000E+02	1. 155E+00	3. 417E-03
9. 000E-02	1. 100E-01	2. 041E+00	1. 405E+00	2. 000E-02	1. 000E+02	1. 155E+00	6. 325E-03

1. 250E-01	1. 750E-01	1. 244E+00	1. 257E+00	5. 000E-02	1. 000E+02	1. 155E+00	8. 269E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	1. 032E+00	2. 851E+00	2. 000E-03	1. 000E+00	1. 155E+00	4. 312E-03
1. 750E-02	2. 250E-02	1. 029E+00	2. 212E+00	2. 000E-03	1. 000E+00	1. 155E+00	3. 052E-03
2. 500E-02	3. 500E-02	1. 035E+00	2. 286E+00	6. 000E-03	1. 000E+00	1. 155E+00	3. 116E-03
3. 500E-02	4. 500E-02	1. 033E+00	2. 123E+00	1. 200E-02	1. 000E+00	1. 155E+00	2. 866E-03
4. 500E-02	5. 500E-02	1. 047E+00	1. 945E+00	2. 000E-02	1. 000E+00	1. 155E+00	3. 968E-03
5. 500E-02	6. 500E-02	1. 052E+00	2. 386E+00	4. 000E-02	1. 000E+00	1. 155E+00	6. 140E-03
7. 000E-02	9. 000E-02	1. 068E+00	2. 224E+00	8. 000E-02	1. 000E+00	1. 155E+00	5. 888E-03
9. 000E-02	1. 100E-01	2. 803E+00	2. 810E+00	4. 000E-02	1. 000E+00	1. 155E+00	5. 055E-03
1. 250E-01	1. 750E-01	1. 276E+00	2. 514E+00	1. 000E-01	1. 000E+00	1. 155E+00	1. 438E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	1. 032E+00	2. 851E+00	2. 000E-03	2. 000E+00	1. 155E+00	4. 311E-03
1. 750E-02	2. 250E-02	1. 029E+00	2. 212E+00	2. 000E-03	2. 000E+00	1. 155E+00	3. 052E-03
2. 500E-02	3. 500E-02	1. 035E+00	2. 286E+00	6. 000E-03	2. 000E+00	1. 155E+00	3. 115E-03
3. 500E-02	4. 500E-02	1. 034E+00	2. 123E+00	1. 200E-02	2. 000E+00	1. 155E+00	4. 522E-03
4. 500E-02	5. 500E-02	1. 048E+00	1. 945E+00	2. 000E-02	2. 000E+00	1. 155E+00	3. 967E-03
5. 500E-02	6. 500E-02	1. 052E+00	2. 386E+00	4. 000E-02	2. 000E+00	1. 155E+00	6. 138E-03
7. 000E-02	9. 000E-02	1. 068E+00	2. 224E+00	8. 000E-02	2. 000E+00	1. 155E+00	5. 887E-03
9. 000E-02	1. 100E-01	2. 846E+00	2. 810E+00	4. 000E-02	2. 000E+00	1. 155E+00	5. 017E-03
1. 250E-01	1. 750E-01	1. 291E+00	2. 514E+00	1. 000E-01	2. 000E+00	1. 155E+00	1. 522E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	1. 034E+00	2. 851E+00	2. 000E-03	1. 000E+01	1. 155E+00	4. 308E-03
1. 750E-02	2. 250E-02	1. 031E+00	2. 212E+00	2. 000E-03	1. 000E+01	1. 155E+00	5. 153E-03
2. 500E-02	3. 500E-02	1. 037E+00	2. 286E+00	6. 000E-03	1. 000E+01	1. 155E+00	5. 048E-03
3. 500E-02	4. 500E-02	1. 035E+00	2. 123E+00	1. 200E-02	1. 000E+01	1. 155E+00	4. 689E-03
4. 500E-02	5. 500E-02	1. 049E+00	1. 945E+00	2. 000E-02	1. 000E+01	1. 155E+00	3. 964E-03
5. 500E-02	6. 500E-02	1. 053E+00	2. 386E+00	4. 000E-02	1. 000E+01	1. 155E+00	6. 135E-03
7. 000E-02	9. 000E-02	1. 069E+00	2. 224E+00	8. 000E-02	1. 000E+01	1. 155E+00	5. 884E-03
9. 000E-02	1. 100E-01	2. 893E+00	2. 810E+00	4. 000E-02	1. 000E+01	1. 155E+00	4. 976E-03
1. 250E-01	1. 750E-01	1. 298E+00	2. 514E+00	1. 000E-01	1. 000E+01	1. 155E+00	1. 518E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	1. 035E+00	2. 851E+00	2. 000E-03	2. 000E+01	1. 155E+00	4. 305E-03
1. 750E-02	2. 250E-02	1. 032E+00	2. 212E+00	2. 000E-03	2. 000E+01	1. 155E+00	5. 151E-03
2. 500E-02	3. 500E-02	1. 038E+00	2. 286E+00	6. 000E-03	2. 000E+01	1. 155E+00	5. 045E-03
3. 500E-02	4. 500E-02	1. 036E+00	2. 123E+00	1. 200E-02	2. 000E+01	1. 155E+00	4. 687E-03
4. 500E-02	5. 500E-02	1. 051E+00	1. 945E+00	2. 000E-02	2. 000E+01	1. 155E+00	3. 962E-03
5. 500E-02	6. 500E-02	1. 054E+00	2. 386E+00	4. 000E-02	2. 000E+01	1. 155E+00	6. 132E-03
7. 000E-02	9. 000E-02	1. 070E+00	2. 224E+00	8. 000E-02	2. 000E+01	1. 155E+00	5. 882E-03
9. 000E-02	1. 100E-01	2. 946E+00	2. 810E+00	4. 000E-02	2. 000E+01	1. 155E+00	4. 931E-03
1. 250E-01	1. 750E-01	1. 300E+00	2. 514E+00	1. 000E-01	2. 000E+01	1. 155E+00	1. 517E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	1. 040E+00	2. 851E+00	2. 000E-03	1. 000E+02	1. 155E+00	4. 295E-03
1. 750E-02	2. 250E-02	1. 038E+00	2. 212E+00	2. 000E-03	1. 000E+02	1. 155E+00	5. 136E-03
2. 500E-02	3. 500E-02	1. 043E+00	2. 286E+00	6. 000E-03	1. 000E+02	1. 155E+00	5. 033E-03
3. 500E-02	4. 500E-02	1. 041E+00	2. 123E+00	1. 200E-02	1. 000E+02	1. 155E+00	4. 675E-03
4. 500E-02	5. 500E-02	1. 056E+00	1. 945E+00	2. 000E-02	1. 000E+02	1. 155E+00	3. 952E-03
5. 500E-02	6. 500E-02	1. 058E+00	2. 386E+00	4. 000E-02	1. 000E+02	1. 155E+00	6. 120E-03
7. 000E-02	9. 000E-02	1. 073E+00	2. 224E+00	8. 000E-02	1. 000E+02	1. 155E+00	5. 872E-03
9. 000E-02	1. 100E-01	3. 234E+00	2. 810E+00	4. 000E-02	1. 000E+02	1. 155E+00	4. 707E-03
1. 250E-01	1. 750E-01	1. 313E+00	2. 514E+00	1. 000E-01	1. 000E+02	1. 155E+00	1. 509E-02

ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1. /SIN	SIGMA
LOWER	UPPER						
1. 250E-02	1. 750E-02	1. 037E+00	7. 128E+00	5. 000E-03	1. 000E+00	1. 155E+00	3. 649E-02
1. 750E-02	2. 250E-02	1. 070E+00	5. 530E+00	5. 000E-03	1. 000E+00	1. 155E+00	1. 573E-02
2. 500E-02	3. 500E-02	1. 091E+00	5. 714E+00	1. 500E-02	1. 000E+00	1. 155E+00	1. 685E-02
3. 500E-02	4. 500E-02	1. 081E+00	5. 308E+00	3. 000E-02	1. 000E+00	1. 155E+00	1. 377E-02
4. 500E-02	5. 500E-02	1. 106E+00	4. 861E+00	5. 000E-02	1. 000E+00	1. 155E+00	1. 660E-02
5. 500E-02	6. 500E-02	1. 118E+00	5. 965E+00	1. 000E-01	1. 000E+00	1. 155E+00	2. 732E-02
7. 000E-02	9. 000E-02	1. 124E+00	5. 560E+00	2. 000E-01	1. 000E+00	1. 155E+00	2. 607E-02
9. 000E-02	1. 100E-01	1. 400E+01	7. 024E+00	1. 000E-01	1. 000E+00	1. 155E+00	1. 660E-02
1. 250E-01	1. 750E-01	1. 411E+00	6. 286E+00	2. 500E-01	1. 000E+00	1. 155E+00	4. 191E-02
ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1. /SIN	SIGMA
LOWER	UPPER						
1. 250E-02	1. 750E-02	1. 037E+00	7. 128E+00	5. 000E-03	2. 000E+00	1. 155E+00	3. 649E-02
1. 750E-02	2. 250E-02	1. 070E+00	5. 530E+00	5. 000E-03	2. 000E+00	1. 155E+00	1. 572E-02
2. 500E-02	3. 500E-02	1. 091E+00	5. 714E+00	1. 500E-02	2. 000E+00	1. 155E+00	1. 685E-02
3. 500E-02	4. 500E-02	1. 081E+00	5. 308E+00	3. 000E-02	2. 000E+00	1. 155E+00	1. 377E-02
4. 500E-02	5. 500E-02	1. 106E+00	4. 861E+00	5. 000E-02	2. 000E+00	1. 155E+00	1. 660E-02
5. 500E-02	6. 500E-02	1. 118E+00	5. 965E+00	1. 000E-01	2. 000E+00	1. 155E+00	2. 732E-02
7. 000E-02	9. 000E-02	1. 127E+00	5. 560E+00	2. 000E-01	2. 000E+00	1. 155E+00	2. 604E-02
9. 000E-02	1. 100E-01	1. 423E+01	7. 024E+00	1. 000E-01	2. 000E+00	1. 155E+00	1. 647E-02
1. 250E-01	1. 750E-01	1. 413E+00	6. 286E+00	2. 500E-01	2. 000E+00	1. 155E+00	4. 187E-02
ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1. /SIN	SIGMA
LOWER	UPPER						
1. 250E-02	1. 750E-02	1. 037E+00	7. 128E+00	5. 000E-03	1. 000E+01	1. 155E+00	3. 649E-02
1. 750E-02	2. 250E-02	1. 072E+00	5. 530E+00	5. 000E-03	1. 000E+01	1. 155E+00	1. 571E-02
2. 500E-02	3. 500E-02	1. 092E+00	5. 714E+00	1. 500E-02	1. 000E+01	1. 155E+00	1. 684E-02
3. 500E-02	4. 500E-02	1. 083E+00	5. 308E+00	3. 000E-02	1. 000E+01	1. 155E+00	1. 376E-02
4. 500E-02	5. 500E-02	1. 107E+00	4. 861E+00	5. 000E-02	1. 000E+01	1. 155E+00	1. 659E-02
5. 500E-02	6. 500E-02	1. 120E+00	5. 965E+00	1. 000E-01	1. 000E+01	1. 155E+00	2. 731E-02
7. 000E-02	9. 000E-02	1. 128E+00	5. 560E+00	2. 000E-01	1. 000E+01	1. 155E+00	2. 603E-02
9. 000E-02	1. 100E-01	1. 460E+01	7. 024E+00	1. 000E-01	1. 000E+01	1. 155E+00	1. 626E-02
1. 250E-01	1. 750E-01	1. 415E+00	6. 286E+00	2. 500E-01	1. 000E+01	1. 155E+00	4. 185E-02
ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1. /SIN	SIGMA
LOWER	UPPER						
1. 250E-02	1. 750E-02	1. 037E+00	7. 128E+00	5. 000E-03	2. 000E+01	1. 155E+00	3. 649E-02
1. 750E-02	2. 250E-02	1. 073E+00	5. 530E+00	5. 000E-03	2. 000E+01	1. 155E+00	1. 570E-02
2. 500E-02	3. 500E-02	1. 094E+00	5. 714E+00	1. 500E-02	2. 000E+01	1. 155E+00	1. 683E-02
3. 500E-02	4. 500E-02	1. 084E+00	5. 308E+00	3. 000E-02	2. 000E+01	1. 155E+00	1. 375E-02
4. 500E-02	5. 500E-02	1. 108E+00	4. 861E+00	5. 000E-02	2. 000E+01	1. 155E+00	1. 659E-02
5. 500E-02	6. 500E-02	1. 121E+00	5. 965E+00	1. 000E-01	2. 000E+01	1. 155E+00	2. 729E-02
7. 000E-02	9. 000E-02	1. 128E+00	5. 560E+00	2. 000E-01	2. 000E+01	1. 155E+00	2. 602E-02
9. 000E-02	1. 100E-01	1. 506E+01	7. 024E+00	1. 000E-01	2. 000E+01	1. 155E+00	1. 601E-02
1. 250E-01	1. 750E-01	1. 415E+00	6. 286E+00	2. 500E-01	2. 000E+01	1. 155E+00	4. 184E-02
ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1. /SIN	SIGMA
LOWER	UPPER						
1. 250E-02	1. 750E-02	1. 040E+00	7. 128E+00	5. 000E-03	1. 000E+02	1. 155E+00	3. 645E-02
1. 750E-02	2. 250E-02	1. 076E+00	5. 530E+00	5. 000E-03	1. 000E+02	1. 155E+00	1. 568E-02
2. 500E-02	3. 500E-02	1. 096E+00	5. 714E+00	1. 500E-02	1. 000E+02	1. 155E+00	1. 682E-02
3. 500E-02	4. 500E-02	1. 085E+00	5. 308E+00	3. 000E-02	1. 000E+02	1. 155E+00	1. 374E-02
4. 500E-02	5. 500E-02	1. 110E+00	4. 861E+00	5. 000E-02	1. 000E+02	1. 155E+00	1. 658E-02
5. 500E-02	6. 500E-02	1. 122E+00	5. 965E+00	1. 000E-01	1. 000E+02	1. 155E+00	2. 728E-02
7. 000E-02	9. 000E-02	1. 129E+00	5. 560E+00	2. 000E-01	1. 000E+02	1. 155E+00	2. 601E-02
9. 000E-02	1. 100E-01	1. 765E+01	7. 024E+00	1. 000E-01	1. 000E+02	1. 155E+00	1. 479E-02
1. 250E-01	1. 750E-01	1. 428E+00	6. 286E+00	2. 500E-01	1. 000E+02	1. 155E+00	4. 166E-02

表A-1-(3) EGS4により求めたペンシルビーム状線源の再生係数 (40度)

①		②	③	④	⑤	⑥	⑦
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	1. 020E+00	1. 921E+00	1. 000E-03	1. 000E+00	1. 556E+00	2. 773E-03
1. 750E-02	2. 250E-02	1. 019E+00	1. 490E+00	1. 000E-03	1. 000E+00	1. 556E+00	2. 155E-03
2. 500E-02	3. 500E-02	1. 023E+00	1. 540E+00	3. 000E-03	1. 000E+00	1. 556E+00	2. 166E-03
3. 500E-02	4. 500E-02	1. 019E+00	1. 430E+00	6. 000E-03	1. 000E+00	1. 556E+00	3. 351E-03
4. 500E-02	5. 500E-02	1. 028E+00	1. 310E+00	1. 000E-02	1. 000E+00	1. 556E+00	2. 923E-03
5. 500E-02	6. 500E-02	1. 039E+00	1. 607E+00	2. 000E-02	1. 000E+00	1. 556E+00	4. 193E-03
7. 000E-02	9. 000E-02	1. 046E+00	1. 498E+00	4. 000E-02	1. 000E+00	1. 556E+00	4. 146E-03
9. 000E-02	1. 100E-01	1. 994E+00	1. 893E+00	2. 000E-02	1. 000E+00	1. 556E+00	3. 797E-03
1. 250E-01	1. 750E-01	1. 253E+00	1. 694E+00	5. 000E-02	1. 000E+00	1. 556E+00	1. 059E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	1. 020E+00	1. 921E+00	1. 000E-03	2. 000E+00	1. 556E+00	2. 772E-03
1. 750E-02	2. 250E-02	1. 019E+00	1. 490E+00	1. 000E-03	2. 000E+00	1. 556E+00	2. 155E-03
2. 500E-02	3. 500E-02	1. 024E+00	1. 540E+00	3. 000E-03	2. 000E+00	1. 556E+00	2. 165E-03
3. 500E-02	4. 500E-02	1. 019E+00	1. 430E+00	6. 000E-03	2. 000E+00	1. 556E+00	3. 351E-03
4. 500E-02	5. 500E-02	1. 028E+00	1. 310E+00	1. 000E-02	2. 000E+00	1. 556E+00	2. 922E-03
5. 500E-02	6. 500E-02	1. 040E+00	1. 607E+00	2. 000E-02	2. 000E+00	1. 556E+00	4. 192E-03
7. 000E-02	9. 000E-02	1. 047E+00	1. 498E+00	4. 000E-02	2. 000E+00	1. 556E+00	4. 144E-03
9. 000E-02	1. 100E-01	2. 059E+00	1. 893E+00	2. 000E-02	2. 000E+00	1. 556E+00	3. 736E-03
1. 250E-01	1. 750E-01	1. 259E+00	1. 694E+00	5. 000E-02	2. 000E+00	1. 556E+00	1. 056E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	1. 022E+00	1. 921E+00	1. 000E-03	1. 000E+01	1. 556E+00	2. 769E-03
1. 750E-02	2. 250E-02	1. 023E+00	1. 490E+00	1. 000E-03	1. 000E+01	1. 556E+00	2. 151E-03
2. 500E-02	3. 500E-02	1. 027E+00	1. 540E+00	3. 000E-03	1. 000E+01	1. 556E+00	2. 162E-03
3. 500E-02	4. 500E-02	1. 024E+00	1. 430E+00	6. 000E-03	1. 000E+01	1. 556E+00	3. 343E-03
4. 500E-02	5. 500E-02	1. 034E+00	1. 310E+00	1. 000E-02	1. 000E+01	1. 556E+00	2. 914E-03
5. 500E-02	6. 500E-02	1. 043E+00	1. 607E+00	2. 000E-02	1. 000E+01	1. 556E+00	4. 185E-03
7. 000E-02	9. 000E-02	1. 051E+00	1. 498E+00	4. 000E-02	1. 000E+01	1. 556E+00	4. 135E-03
9. 000E-02	1. 100E-01	2. 111E+00	1. 893E+00	2. 000E-02	1. 000E+01	1. 556E+00	3. 690E-03
1. 250E-01	1. 750E-01	1. 264E+00	1. 694E+00	5. 000E-02	1. 000E+01	1. 556E+00	1. 054E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	1. 024E+00	1. 921E+00	1. 000E-03	2. 000E+01	1. 556E+00	2. 767E-03
1. 750E-02	2. 250E-02	1. 025E+00	1. 490E+00	1. 000E-03	2. 000E+01	1. 556E+00	2. 150E-03
2. 500E-02	3. 500E-02	1. 028E+00	1. 540E+00	3. 000E-03	2. 000E+01	1. 556E+00	2. 160E-03
3. 500E-02	4. 500E-02	1. 025E+00	1. 430E+00	6. 000E-03	2. 000E+01	1. 556E+00	3. 341E-03
4. 500E-02	5. 500E-02	1. 036E+00	1. 310E+00	1. 000E-02	2. 000E+01	1. 556E+00	2. 912E-03
5. 500E-02	6. 500E-02	1. 045E+00	1. 607E+00	2. 000E-02	2. 000E+01	1. 556E+00	4. 182E-03
7. 000E-02	9. 000E-02	1. 053E+00	1. 498E+00	4. 000E-02	2. 000E+01	1. 556E+00	4. 133E-03
9. 000E-02	1. 100E-01	2. 150E+00	1. 893E+00	2. 000E-02	2. 000E+01	1. 556E+00	3. 656E-03
1. 250E-01	1. 750E-01	1. 269E+00	1. 694E+00	5. 000E-02	2. 000E+01	1. 556E+00	1. 052E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	1. 031E+00	1. 921E+00	1. 000E-03	1. 000E+02	1. 556E+00	2. 758E-03
1. 750E-02	2. 250E-02	1. 031E+00	1. 490E+00	1. 000E-03	1. 000E+02	1. 556E+00	3. 246E-03
2. 500E-02	3. 500E-02	1. 035E+00	1. 540E+00	3. 000E-03	1. 000E+02	1. 556E+00	3. 493E-03
3. 500E-02	4. 500E-02	1. 031E+00	1. 430E+00	6. 000E-03	1. 000E+02	1. 556E+00	3. 331E-03
4. 500E-02	5. 500E-02	1. 043E+00	1. 310E+00	1. 000E-02	1. 000E+02	1. 556E+00	2. 901E-03
5. 500E-02	6. 500E-02	1. 051E+00	1. 607E+00	2. 000E-02	1. 000E+02	1. 556E+00	4. 171E-03
7. 000E-02	9. 000E-02	1. 058E+00	1. 498E+00	4. 000E-02	1. 000E+02	1. 556E+00	4. 122E-03
9. 000E-02	1. 100E-01	2. 355E+00	1. 893E+00	2. 000E-02	1. 000E+02	1. 556E+00	3. 493E-03



1. 250E-01	1. 750E-01	1. 293E+00	1. 694E+00	5. 000E-02	1. 000E+02	1. 556E+00	1. 042E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	1. 036E+00	3. 841E+00	2. 000E-03	1. 000E+00	1. 556E+00	7. 188E-03
1. 750E-02	2. 250E-02	1. 047E+00	2. 980E+00	2. 000E-03	1. 000E+00	1. 556E+00	4. 479E-03
2. 500E-02	3. 500E-02	1. 050E+00	3. 079E+00	6. 000E-03	1. 000E+00	1. 556E+00	6. 905E-03
3. 500E-02	4. 500E-02	1. 045E+00	2. 860E+00	1. 200E-02	1. 000E+00	1. 556E+00	6. 244E-03
4. 500E-02	5. 500E-02	1. 063E+00	2. 620E+00	2. 000E-02	1. 000E+00	1. 556E+00	5. 534E-03
5. 500E-02	6. 500E-02	1. 078E+00	3. 214E+00	4. 000E-02	1. 000E+00	1. 556E+00	9. 198E-03
7. 000E-02	9. 000E-02	1. 086E+00	2. 996E+00	8. 000E-02	1. 000E+00	1. 556E+00	8. 606E-03
9. 000E-02	1. 100E-01	4. 195E+00	3. 785E+00	4. 000E-02	1. 000E+00	1. 556E+00	6. 743E-03
1. 250E-01	1. 750E-01	1. 382E+00	3. 387E+00	1. 000E-01	1. 000E+00	1. 556E+00	2. 227E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	1. 036E+00	3. 841E+00	2. 000E-03	2. 000E+00	1. 556E+00	7. 187E-03
1. 750E-02	2. 250E-02	1. 048E+00	2. 980E+00	2. 000E-03	2. 000E+00	1. 556E+00	4. 478E-03
2. 500E-02	3. 500E-02	1. 051E+00	3. 079E+00	6. 000E-03	2. 000E+00	1. 556E+00	6. 904E-03
3. 500E-02	4. 500E-02	1. 045E+00	2. 860E+00	1. 200E-02	2. 000E+00	1. 556E+00	6. 243E-03
4. 500E-02	5. 500E-02	1. 064E+00	2. 620E+00	2. 000E-02	2. 000E+00	1. 556E+00	5. 531E-03
5. 500E-02	6. 500E-02	1. 078E+00	3. 214E+00	4. 000E-02	2. 000E+00	1. 556E+00	9. 195E-03
7. 000E-02	9. 000E-02	1. 086E+00	2. 996E+00	8. 000E-02	2. 000E+00	1. 556E+00	8. 605E-03
9. 000E-02	1. 100E-01	4. 254E+00	3. 785E+00	4. 000E-02	2. 000E+00	1. 556E+00	6. 696E-03
1. 250E-01	1. 750E-01	1. 399E+00	3. 387E+00	1. 000E-01	2. 000E+00	1. 556E+00	2. 213E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	1. 037E+00	3. 841E+00	2. 000E-03	1. 000E+01	1. 556E+00	7. 183E-03
1. 750E-02	2. 250E-02	1. 048E+00	2. 980E+00	2. 000E-03	1. 000E+01	1. 556E+00	4. 477E-03
2. 500E-02	3. 500E-02	1. 051E+00	3. 079E+00	6. 000E-03	1. 000E+01	1. 556E+00	6. 902E-03
3. 500E-02	4. 500E-02	1. 046E+00	2. 860E+00	1. 200E-02	1. 000E+01	1. 556E+00	6. 241E-03
4. 500E-02	5. 500E-02	1. 065E+00	2. 620E+00	2. 000E-02	1. 000E+01	1. 556E+00	5. 528E-03
5. 500E-02	6. 500E-02	1. 078E+00	3. 214E+00	4. 000E-02	1. 000E+01	1. 556E+00	9. 194E-03
7. 000E-02	9. 000E-02	1. 087E+00	2. 996E+00	8. 000E-02	1. 000E+01	1. 556E+00	8. 602E-03
9. 000E-02	1. 100E-01	4. 347E+00	3. 785E+00	4. 000E-02	1. 000E+01	1. 556E+00	6. 624E-03
1. 250E-01	1. 750E-01	1. 410E+00	3. 387E+00	1. 000E-01	1. 000E+01	1. 556E+00	2. 204E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	1. 039E+00	3. 841E+00	2. 000E-03	2. 000E+01	1. 556E+00	7. 177E-03
1. 750E-02	2. 250E-02	1. 050E+00	2. 980E+00	2. 000E-03	2. 000E+01	1. 556E+00	4. 474E-03
2. 500E-02	3. 500E-02	1. 053E+00	3. 079E+00	6. 000E-03	2. 000E+01	1. 556E+00	6. 898E-03
3. 500E-02	4. 500E-02	1. 047E+00	2. 860E+00	1. 200E-02	2. 000E+01	1. 556E+00	6. 238E-03
4. 500E-02	5. 500E-02	1. 066E+00	2. 620E+00	2. 000E-02	2. 000E+01	1. 556E+00	5. 525E-03
5. 500E-02	6. 500E-02	1. 080E+00	3. 214E+00	4. 000E-02	2. 000E+01	1. 556E+00	9. 189E-03
7. 000E-02	9. 000E-02	1. 088E+00	2. 996E+00	8. 000E-02	2. 000E+01	1. 556E+00	8. 599E-03
9. 000E-02	1. 100E-01	4. 461E+00	3. 785E+00	4. 000E-02	2. 000E+01	1. 556E+00	6. 539E-03
1. 250E-01	1. 750E-01	1. 415E+00	3. 387E+00	1. 000E-01	2. 000E+01	1. 556E+00	2. 200E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	1. 050E+00	3. 841E+00	2. 000E-03	1. 000E+02	1. 556E+00	7. 137E-03
1. 750E-02	2. 250E-02	1. 059E+00	2. 980E+00	2. 000E-03	1. 000E+02	1. 556E+00	4. 455E-03
2. 500E-02	3. 500E-02	1. 061E+00	3. 079E+00	6. 000E-03	1. 000E+02	1. 556E+00	6. 869E-03
3. 500E-02	4. 500E-02	1. 054E+00	2. 860E+00	1. 200E-02	1. 000E+02	1. 556E+00	6. 734E-03
4. 500E-02	5. 500E-02	1. 073E+00	2. 620E+00	2. 000E-02	1. 000E+02	1. 556E+00	5. 508E-03
5. 500E-02	6. 500E-02	1. 087E+00	3. 214E+00	4. 000E-02	1. 000E+02	1. 556E+00	9. 158E-03
7. 000E-02	9. 000E-02	1. 093E+00	2. 996E+00	8. 000E-02	1. 000E+02	1. 556E+00	8. 577E-03
9. 000E-02	1. 100E-01	5. 098E+00	3. 785E+00	4. 000E-02	1. 000E+02	1. 556E+00	6. 117E-03
1. 250E-01	1. 750E-01	1. 442E+00	3. 387E+00	1. 000E-01	1. 000E+02	1. 556E+00	2. 180E-02

ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1./SIN	SIGMA
LOWER	UPPER						
1. 250E-02	1. 750E-02	1. 004E+00	9. 603E+00	5. 000E-03	1. 000E+00	1. 556E+00	1. 302E-01
1. 750E-02	2. 250E-02	1. 026E+00	7. 450E+00	5. 000E-03	1. 000E+00	1. 556E+00	4. 229E-02
2. 500E-02	3. 500E-02	1. 148E+00	7. 699E+00	1. 500E-02	1. 000E+00	1. 556E+00	4. 447E-02
3. 500E-02	4. 500E-02	1. 125E+00	7. 151E+00	3. 000E-02	1. 000E+00	1. 556E+00	3. 401E-02
4. 500E-02	5. 500E-02	1. 157E+00	6. 550E+00	5. 000E-02	1. 000E+00	1. 556E+00	3. 784E-02
5. 500E-02	6. 500E-02	1. 165E+00	8. 036E+00	1. 000E-01	1. 000E+00	1. 556E+00	7. 494E-02
7. 000E-02	9. 000E-02	1. 172E+00	7. 491E+00	2. 000E-01	1. 000E+00	1. 556E+00	6. 716E-02
9. 000E-02	1. 100E-01	8. 829E+01	9. 463E+00	1. 000E-01	1. 000E+00	1. 556E+00	2. 243E-02
1. 250E-01	1. 750E-01	1. 903E+00	8. 468E+00	2. 500E-01	1. 000E+00	1. 556E+00	9. 782E-02
ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1./SIN	SIGMA
LOWER	UPPER						
1. 250E-02	1. 750E-02	1. 004E+00	9. 603E+00	5. 000E-03	2. 000E+00	1. 556E+00	1. 302E-01
1. 750E-02	2. 250E-02	1. 026E+00	7. 450E+00	5. 000E-03	2. 000E+00	1. 556E+00	4. 230E-02
2. 500E-02	3. 500E-02	1. 148E+00	7. 699E+00	1. 500E-02	2. 000E+00	1. 556E+00	4. 447E-02
3. 500E-02	4. 500E-02	1. 125E+00	7. 151E+00	3. 000E-02	2. 000E+00	1. 556E+00	3. 401E-02
4. 500E-02	5. 500E-02	1. 158E+00	6. 550E+00	5. 000E-02	2. 000E+00	1. 556E+00	3. 783E-02
5. 500E-02	6. 500E-02	1. 165E+00	8. 036E+00	1. 000E-01	2. 000E+00	1. 556E+00	7. 494E-02
7. 000E-02	9. 000E-02	1. 174E+00	7. 491E+00	2. 000E-01	2. 000E+00	1. 556E+00	6. 712E-02
9. 000E-02	1. 100E-01	9. 037E+01	9. 463E+00	1. 000E-01	2. 000E+00	1. 556E+00	2. 217E-02
1. 250E-01	1. 750E-01	1. 921E+00	8. 468E+00	2. 500E-01	2. 000E+00	1. 556E+00	9. 735E-02
ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1./SIN	SIGMA
LOWER	UPPER						
1. 250E-02	1. 750E-02	1. 004E+00	9. 603E+00	5. 000E-03	1. 000E+01	1. 556E+00	1. 302E-01
1. 750E-02	2. 250E-02	1. 029E+00	7. 450E+00	5. 000E-03	1. 000E+01	1. 556E+00	4. 223E-02
2. 500E-02	3. 500E-02	1. 148E+00	7. 699E+00	1. 500E-02	1. 000E+01	1. 556E+00	4. 447E-02
3. 500E-02	4. 500E-02	1. 126E+00	7. 151E+00	3. 000E-02	1. 000E+01	1. 556E+00	3. 400E-02
4. 500E-02	5. 500E-02	1. 159E+00	6. 550E+00	5. 000E-02	1. 000E+01	1. 556E+00	3. 781E-02
5. 500E-02	6. 500E-02	1. 167E+00	8. 036E+00	1. 000E-01	1. 000E+01	1. 556E+00	7. 487E-02
7. 000E-02	9. 000E-02	1. 175E+00	7. 491E+00	2. 000E-01	1. 000E+01	1. 556E+00	6. 708E-02
9. 000E-02	1. 100E-01	9. 354E+01	9. 463E+00	1. 000E-01	1. 000E+01	1. 556E+00	2. 179E-02
1. 250E-01	1. 750E-01	1. 924E+00	8. 468E+00	2. 500E-01	1. 000E+01	1. 556E+00	9. 726E-02
ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1./SIN	SIGMA
LOWER	UPPER						
1. 250E-02	1. 750E-02	1. 004E+00	9. 603E+00	5. 000E-03	2. 000E+01	1. 556E+00	1. 302E-01
1. 750E-02	2. 250E-02	1. 029E+00	7. 450E+00	5. 000E-03	2. 000E+01	1. 556E+00	4. 223E-02
2. 500E-02	3. 500E-02	1. 149E+00	7. 699E+00	1. 500E-02	2. 000E+01	1. 556E+00	4. 444E-02
3. 500E-02	4. 500E-02	1. 126E+00	7. 151E+00	3. 000E-02	2. 000E+01	1. 556E+00	3. 400E-02
4. 500E-02	5. 500E-02	1. 160E+00	6. 550E+00	5. 000E-02	2. 000E+01	1. 556E+00	3. 779E-02
5. 500E-02	6. 500E-02	1. 167E+00	8. 036E+00	1. 000E-01	2. 000E+01	1. 556E+00	7. 487E-02
7. 000E-02	9. 000E-02	1. 178E+00	7. 491E+00	2. 000E-01	2. 000E+01	1. 556E+00	6. 699E-02
9. 000E-02	1. 100E-01	9. 772E+01	9. 463E+00	1. 000E-01	2. 000E+01	1. 556E+00	2. 132E-02
1. 250E-01	1. 750E-01	1. 932E+00	8. 468E+00	2. 500E-01	2. 000E+01	1. 556E+00	9. 708E-02
ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1./SIN	SIGMA
LOWER	UPPER						
1. 250E-02	1. 750E-02	1. 063E+00	9. 603E+00	5. 000E-03	1. 000E+02	1. 556E+00	1. 265E-01
1. 750E-02	2. 250E-02	1. 067E+00	7. 450E+00	5. 000E-03	1. 000E+02	1. 556E+00	4. 148E-02
2. 500E-02	3. 500E-02	1. 171E+00	7. 699E+00	1. 500E-02	1. 000E+02	1. 556E+00	4. 404E-02
3. 500E-02	4. 500E-02	1. 147E+00	7. 151E+00	3. 000E-02	1. 000E+02	1. 556E+00	3. 369E-02
4. 500E-02	5. 500E-02	1. 173E+00	6. 550E+00	5. 000E-02	1. 000E+02	1. 556E+00	3. 757E-02
5. 500E-02	6. 500E-02	1. 178E+00	8. 036E+00	1. 000E-01	1. 000E+02	1. 556E+00	7. 452E-02
7. 000E-02	9. 000E-02	1. 187E+00	7. 491E+00	2. 000E-01	1. 000E+02	1. 556E+00	6. 674E-02
9. 000E-02	1. 100E-01	1. 223E+02	9. 463E+00	1. 000E-01	1. 000E+02	1. 556E+00	1. 906E-02
1. 250E-01	1. 750E-01	2. 015E+00	8. 468E+00	2. 500E-01	1. 000E+02	1. 556E+00	9. 505E-02

表A-1-(4) EGS4により求めたペンシルビーム状線源の再生係数 (10度)

①		②	③	④	⑤	⑥	⑦
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	1. 019E+00	1. 422E+00	2. 000E-04	1. 000E+00	5. 760E+00	2. 606E-03
1. 750E-02	2. 250E-02	1. 017E+00	1. 103E+00	2. 000E-04	1. 000E+00	5. 760E+00	2. 764E-03
2. 500E-02	3. 500E-02	1. 011E+00	1. 140E+00	6. 000E-04	1. 000E+00	5. 760E+00	1. 855E-03
3. 500E-02	4. 500E-02	1. 004E+00	1. 059E+00	1. 200E-03	1. 000E+00	5. 760E+00	2. 883E-03
4. 500E-02	5. 500E-02	1. 009E+00	9. 701E-01	2. 000E-03	1. 000E+00	5. 760E+00	2. 549E-03
5. 500E-02	6. 500E-02	1. 013E+00	1. 190E+00	4. 000E-03	1. 000E+00	5. 760E+00	3. 525E-03
7. 000E-02	9. 000E-02	1. 012E+00	1. 110E+00	8. 000E-03	1. 000E+00	5. 760E+00	3. 540E-03
9. 000E-02	1. 100E-01	1. 153E+00	1. 402E+00	4. 000E-03	1. 000E+00	5. 760E+00	4. 859E-03
1. 250E-01	1. 750E-01	1. 055E+00	1. 254E+00	1. 000E-02	1. 000E+00	5. 760E+00	9. 502E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	1. 020E+00	1. 422E+00	2. 000E-04	2. 000E+00	5. 760E+00	2. 606E-03
1. 750E-02	2. 250E-02	1. 017E+00	1. 103E+00	2. 000E-04	2. 000E+00	5. 760E+00	2. 763E-03
2. 500E-02	3. 500E-02	1. 012E+00	1. 140E+00	6. 000E-04	2. 000E+00	5. 760E+00	1. 854E-03
3. 500E-02	4. 500E-02	1. 006E+00	1. 059E+00	1. 200E-03	2. 000E+00	5. 760E+00	2. 881E-03
4. 500E-02	5. 500E-02	1. 012E+00	9. 701E-01	2. 000E-03	2. 000E+00	5. 760E+00	2. 546E-03
5. 500E-02	6. 500E-02	1. 017E+00	1. 190E+00	4. 000E-03	2. 000E+00	5. 760E+00	3. 518E-03
7. 000E-02	9. 000E-02	1. 019E+00	1. 110E+00	8. 000E-03	2. 000E+00	5. 760E+00	3. 529E-03
9. 000E-02	1. 100E-01	1. 324E+00	1. 402E+00	4. 000E-03	2. 000E+00	5. 760E+00	5. 539E-03
1. 250E-01	1. 750E-01	1. 119E+00	1. 254E+00	1. 000E-02	2. 000E+00	5. 760E+00	9. 225E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	1. 021E+00	1. 422E+00	2. 000E-04	1. 000E+01	5. 760E+00	2. 604E-03
1. 750E-02	2. 250E-02	1. 020E+00	1. 103E+00	2. 000E-04	1. 000E+01	5. 760E+00	2. 759E-03
2. 500E-02	3. 500E-02	1. 016E+00	1. 140E+00	6. 000E-04	1. 000E+01	5. 760E+00	1. 851E-03
3. 500E-02	4. 500E-02	1. 011E+00	1. 059E+00	1. 200E-03	1. 000E+01	5. 760E+00	2. 873E-03
4. 500E-02	5. 500E-02	1. 018E+00	9. 701E-01	2. 000E-03	1. 000E+01	5. 760E+00	2. 538E-03
5. 500E-02	6. 500E-02	1. 022E+00	1. 190E+00	4. 000E-03	1. 000E+01	5. 760E+00	3. 509E-03
7. 000E-02	9. 000E-02	1. 025E+00	1. 110E+00	8. 000E-03	1. 000E+01	5. 760E+00	3. 519E-03
9. 000E-02	1. 100E-01	1. 391E+00	1. 402E+00	4. 000E-03	1. 000E+01	5. 760E+00	5. 646E-03
1. 250E-01	1. 750E-01	1. 136E+00	1. 254E+00	1. 000E-02	1. 000E+01	5. 760E+00	9. 155E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	1. 022E+00	1. 422E+00	2. 000E-04	2. 000E+01	5. 760E+00	2. 603E-03
1. 750E-02	2. 250E-02	1. 021E+00	1. 103E+00	2. 000E-04	2. 000E+01	5. 760E+00	2. 758E-03
2. 500E-02	3. 500E-02	1. 017E+00	1. 140E+00	6. 000E-04	2. 000E+01	5. 760E+00	1. 850E-03
3. 500E-02	4. 500E-02	1. 012E+00	1. 059E+00	1. 200E-03	2. 000E+01	5. 760E+00	2. 872E-03
4. 500E-02	5. 500E-02	1. 019E+00	9. 701E-01	2. 000E-03	2. 000E+01	5. 760E+00	2. 537E-03
5. 500E-02	6. 500E-02	1. 023E+00	1. 190E+00	4. 000E-03	2. 000E+01	5. 760E+00	3. 507E-03
7. 000E-02	9. 000E-02	1. 026E+00	1. 110E+00	8. 000E-03	2. 000E+01	5. 760E+00	3. 516E-03
9. 000E-02	1. 100E-01	1. 416E+00	1. 402E+00	4. 000E-03	2. 000E+01	5. 760E+00	5. 596E-03
1. 250E-01	1. 750E-01	1. 143E+00	1. 254E+00	1. 000E-02	2. 000E+01	5. 760E+00	9. 127E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	1. 030E+00	1. 422E+00	2. 000E-04	1. 000E+02	5. 760E+00	2. 593E-03
1. 750E-02	2. 250E-02	1. 028E+00	1. 103E+00	2. 000E-04	1. 000E+02	5. 760E+00	3. 263E-03
2. 500E-02	3. 500E-02	1. 024E+00	1. 140E+00	6. 000E-04	1. 000E+02	5. 760E+00	2. 990E-03
3. 500E-02	4. 500E-02	1. 018E+00	1. 059E+00	1. 200E-03	1. 000E+02	5. 760E+00	2. 863E-03
4. 500E-02	5. 500E-02	1. 026E+00	9. 701E-01	2. 000E-03	1. 000E+02	5. 760E+00	2. 529E-03
5. 500E-02	6. 500E-02	1. 031E+00	1. 190E+00	4. 000E-03	1. 000E+02	5. 760E+00	3. 494E-03
7. 000E-02	9. 000E-02	1. 034E+00	1. 110E+00	8. 000E-03	1. 000E+02	5. 760E+00	3. 503E-03
9. 000E-02	1. 100E-01	1. 522E+00	1. 402E+00	4. 000E-03	1. 000E+02	5. 760E+00	5. 399E-03

1. 250E-01	1. 750E-01	1. 178E+00	1. 254E+00	1. 000E-02	1. 000E+02	5. 760E+00	8. 993E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	1. 019E+00	2. 845E+00	4. 000E-04	1. 000E+00	5. 760E+00	5. 309E-03
1. 750E-02	2. 250E-02	1. 017E+00	2. 207E+00	4. 000E-04	1. 000E+00	5. 760E+00	4. 798E-03
2. 500E-02	3. 500E-02	1. 026E+00	2. 281E+00	1. 200E-03	1. 000E+00	5. 760E+00	3. 258E-03
3. 500E-02	4. 500E-02	1. 028E+00	2. 118E+00	2. 400E-03	1. 000E+00	5. 760E+00	4. 021E-03
4. 500E-02	5. 500E-02	1. 036E+00	1. 940E+00	4. 000E-03	1. 000E+00	5. 760E+00	4. 087E-03
5. 500E-02	6. 500E-02	1. 041E+00	2. 380E+00	8. 000E-03	1. 000E+00	5. 760E+00	6. 305E-03
7. 000E-02	9. 000E-02	1. 041E+00	2. 219E+00	1. 600E-02	1. 000E+00	5. 760E+00	6. 080E-03
9. 000E-02	1. 100E-01	1. 560E+00	2. 803E+00	8. 000E-03	1. 000E+00	5. 760E+00	6. 896E-03
1. 250E-01	1. 750E-01	1. 173E+00	2. 509E+00	2. 000E-02	1. 000E+00	5. 760E+00	1. 665E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	1. 020E+00	2. 845E+00	4. 000E-04	2. 000E+00	5. 760E+00	5. 307E-03
1. 750E-02	2. 250E-02	1. 018E+00	2. 207E+00	4. 000E-04	2. 000E+00	5. 760E+00	4. 796E-03
2. 500E-02	3. 500E-02	1. 028E+00	2. 281E+00	1. 200E-03	2. 000E+00	5. 760E+00	4. 128E-03
3. 500E-02	4. 500E-02	1. 031E+00	2. 118E+00	2. 400E-03	2. 000E+00	5. 760E+00	4. 832E-03
4. 500E-02	5. 500E-02	1. 042E+00	1. 940E+00	4. 000E-03	2. 000E+00	5. 760E+00	4. 076E-03
5. 500E-02	6. 500E-02	1. 051E+00	2. 380E+00	8. 000E-03	2. 000E+00	5. 760E+00	6. 274E-03
7. 000E-02	9. 000E-02	1. 054E+00	2. 219E+00	1. 600E-02	2. 000E+00	5. 760E+00	6. 042E-03
9. 000E-02	1. 100E-01	2. 203E+00	2. 803E+00	8. 000E-03	2. 000E+00	5. 760E+00	5. 803E-03
1. 250E-01	1. 750E-01	1. 331E+00	2. 509E+00	2. 000E-02	2. 000E+00	5. 760E+00	1. 584E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	1. 022E+00	2. 845E+00	4. 000E-04	1. 000E+01	5. 760E+00	5. 300E-03
1. 750E-02	2. 250E-02	1. 020E+00	2. 207E+00	4. 000E-04	1. 000E+01	5. 760E+00	4. 792E-03
2. 500E-02	3. 500E-02	1. 029E+00	2. 281E+00	1. 200E-03	1. 000E+01	5. 760E+00	4. 124E-03
3. 500E-02	4. 500E-02	1. 033E+00	2. 118E+00	2. 400E-03	1. 000E+01	5. 760E+00	4. 827E-03
4. 500E-02	5. 500E-02	1. 044E+00	1. 940E+00	4. 000E-03	1. 000E+01	5. 760E+00	4. 071E-03
5. 500E-02	6. 500E-02	1. 054E+00	2. 380E+00	8. 000E-03	1. 000E+01	5. 760E+00	6. 266E-03
7. 000E-02	9. 000E-02	1. 057E+00	2. 219E+00	1. 600E-02	1. 000E+01	5. 760E+00	6. 034E-03
9. 000E-02	1. 100E-01	2. 364E+00	2. 803E+00	8. 000E-03	1. 000E+01	5. 760E+00	5. 602E-03
1. 250E-01	1. 750E-01	1. 353E+00	2. 509E+00	2. 000E-02	1. 000E+01	5. 760E+00	1. 571E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	1. 024E+00	2. 845E+00	4. 000E-04	2. 000E+01	5. 760E+00	5. 294E-03
1. 750E-02	2. 250E-02	1. 022E+00	2. 207E+00	4. 000E-04	2. 000E+01	5. 760E+00	5. 607E-03
2. 500E-02	3. 500E-02	1. 031E+00	2. 281E+00	1. 200E-03	2. 000E+01	5. 760E+00	4. 121E-03
3. 500E-02	4. 500E-02	1. 035E+00	2. 118E+00	2. 400E-03	2. 000E+01	5. 760E+00	4. 822E-03
4. 500E-02	5. 500E-02	1. 045E+00	1. 940E+00	4. 000E-03	2. 000E+01	5. 760E+00	4. 068E-03
5. 500E-02	6. 500E-02	1. 056E+00	2. 380E+00	8. 000E-03	2. 000E+01	5. 760E+00	6. 259E-03
7. 000E-02	9. 000E-02	1. 059E+00	2. 219E+00	1. 600E-02	2. 000E+01	5. 760E+00	6. 028E-03
9. 000E-02	1. 100E-01	2. 441E+00	2. 803E+00	8. 000E-03	2. 000E+01	5. 760E+00	5. 512E-03
1. 250E-01	1. 750E-01	1. 367E+00	2. 509E+00	2. 000E-02	2. 000E+01	5. 760E+00	1. 563E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	1. 042E+00	2. 845E+00	4. 000E-04	1. 000E+02	5. 760E+00	5. 248E-03
1. 750E-02	2. 250E-02	1. 034E+00	2. 207E+00	4. 000E-04	1. 000E+02	5. 760E+00	5. 649E-03
2. 500E-02	3. 500E-02	1. 044E+00	2. 281E+00	1. 200E-03	1. 000E+02	5. 760E+00	5. 230E-03
3. 500E-02	4. 500E-02	1. 047E+00	2. 118E+00	2. 400E-03	1. 000E+02	5. 760E+00	4. 796E-03
4. 500E-02	5. 500E-02	1. 057E+00	1. 940E+00	4. 000E-03	1. 000E+02	5. 760E+00	4. 046E-03
5. 500E-02	6. 500E-02	1. 072E+00	2. 380E+00	8. 000E-03	1. 000E+02	5. 760E+00	6. 213E-03
7. 000E-02	9. 000E-02	1. 075E+00	2. 219E+00	1. 600E-02	1. 000E+02	5. 760E+00	5. 984E-03
9. 000E-02	1. 100E-01	2. 810E+00	2. 803E+00	8. 000E-03	1. 000E+02	5. 760E+00	5. 138E-03
1. 250E-01	1. 750E-01	1. 448E+00	2. 509E+00	2. 000E-02	1. 000E+02	5. 760E+00	1. 518E-02

ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1./SIN	SIGMA
LOWER	UPPER						
1.250E-02	1.750E-02	1.120E+00	7.112E+00	1.000E-03	1.000E+00	5.760E+00	4.275E-02
1.750E-02	2.250E-02	1.077E+00	5.517E+00	1.000E-03	1.000E+00	5.760E+00	1.714E-02
2.500E-02	3.500E-02	1.091E+00	5.701E+00	3.000E-03	1.000E+00	5.760E+00	1.747E-02
3.500E-02	4.500E-02	1.099E+00	5.295E+00	6.000E-03	1.000E+00	5.760E+00	1.400E-02
4.500E-02	5.500E-02	1.118E+00	4.850E+00	1.000E-02	1.000E+00	5.760E+00	1.686E-02
5.500E-02	6.500E-02	1.182E+00	5.951E+00	2.000E-02	1.000E+00	5.760E+00	3.202E-02
7.000E-02	9.000E-02	1.271E+00	5.548E+00	4.000E-02	1.000E+00	5.760E+00	2.906E-02
9.000E-02	1.100E-01	1.761E+01	7.008E+00	2.000E-02	1.000E+00	5.760E+00	1.680E-02
1.250E-01	1.750E-01	3.365E+00	6.271E+00	5.000E-02	1.000E+00	5.760E+00	3.496E-02

ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1./SIN	SIGMA
LOWER	UPPER						
1.250E-02	1.750E-02	1.140E+00	7.112E+00	1.000E-03	2.000E+00	5.760E+00	4.239E-02
1.750E-02	2.250E-02	1.084E+00	5.517E+00	1.000E-03	2.000E+00	5.760E+00	1.709E-02
2.500E-02	3.500E-02	1.110E+00	5.701E+00	3.000E-03	2.000E+00	5.760E+00	1.996E-02
3.500E-02	4.500E-02	1.124E+00	5.295E+00	6.000E-03	2.000E+00	5.760E+00	2.266E-02
4.500E-02	5.500E-02	1.154E+00	4.850E+00	1.000E-02	2.000E+00	5.760E+00	1.659E-02
5.500E-02	6.500E-02	1.268E+00	5.951E+00	2.000E-02	2.000E+00	5.760E+00	3.092E-02
7.000E-02	9.000E-02	1.346E+00	5.548E+00	4.000E-02	2.000E+00	5.760E+00	2.824E-02
9.000E-02	1.100E-01	3.906E+01	7.008E+00	2.000E-02	2.000E+00	5.760E+00	1.128E-02
1.250E-01	1.750E-01	4.860E+00	6.271E+00	5.000E-02	2.000E+00	5.760E+00	2.909E-02

ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1./SIN	SIGMA
LOWER	UPPER						
1.250E-02	1.750E-02	1.166E+00	7.112E+00	1.000E-03	1.000E+01	5.760E+00	4.191E-02
1.750E-02	2.250E-02	1.094E+00	5.517E+00	1.000E-03	1.000E+01	5.760E+00	1.701E-02
2.500E-02	3.500E-02	1.121E+00	5.701E+00	3.000E-03	1.000E+01	5.760E+00	1.986E-02
3.500E-02	4.500E-02	1.132E+00	5.295E+00	6.000E-03	1.000E+01	5.760E+00	2.258E-02
4.500E-02	5.500E-02	1.161E+00	4.850E+00	1.000E-02	1.000E+01	5.760E+00	1.654E-02
5.500E-02	6.500E-02	1.283E+00	5.951E+00	2.000E-02	1.000E+01	5.760E+00	3.211E-02
7.000E-02	9.000E-02	1.356E+00	5.548E+00	4.000E-02	1.000E+01	5.760E+00	2.814E-02
9.000E-02	1.100E-01	4.161E+01	7.008E+00	2.000E-02	1.000E+01	5.760E+00	1.093E-02
1.250E-01	1.750E-01	5.001E+00	6.271E+00	5.000E-02	1.000E+01	5.760E+00	2.868E-02

ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1./SIN	SIGMA
LOWER	UPPER						
1.250E-02	1.750E-02	1.201E+00	7.112E+00	1.000E-03	2.000E+01	5.760E+00	4.129E-02
1.750E-02	2.250E-02	1.107E+00	5.517E+00	1.000E-03	2.000E+01	5.760E+00	1.691E-02
2.500E-02	3.500E-02	1.135E+00	5.701E+00	3.000E-03	2.000E+01	5.760E+00	1.973E-02
3.500E-02	4.500E-02	1.144E+00	5.295E+00	6.000E-03	2.000E+01	5.760E+00	2.247E-02
4.500E-02	5.500E-02	1.169E+00	4.850E+00	1.000E-02	2.000E+01	5.760E+00	1.649E-02
5.500E-02	6.500E-02	1.303E+00	5.951E+00	2.000E-02	2.000E+01	5.760E+00	3.335E-02
7.000E-02	9.000E-02	1.370E+00	5.548E+00	4.000E-02	2.000E+01	5.760E+00	2.799E-02
9.000E-02	1.100E-01	4.403E+01	7.008E+00	2.000E-02	2.000E+01	5.760E+00	1.063E-02
1.250E-01	1.750E-01	5.168E+00	6.271E+00	5.000E-02	2.000E+01	5.760E+00	2.821E-02

ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1./SIN	SIGMA
LOWER	UPPER						
1.250E-02	1.750E-02	1.564E+00	7.112E+00	1.000E-03	1.000E+02	5.760E+00	3.619E-02
1.750E-02	2.250E-02	1.217E+00	5.517E+00	1.000E-03	1.000E+02	5.760E+00	1.613E-02
2.500E-02	3.500E-02	1.253E+00	5.701E+00	3.000E-03	1.000E+02	5.760E+00	1.879E-02
3.500E-02	4.500E-02	1.230E+00	5.295E+00	6.000E-03	1.000E+02	5.760E+00	2.167E-02
4.500E-02	5.500E-02	1.237E+00	4.850E+00	1.000E-02	1.000E+02	5.760E+00	1.602E-02
5.500E-02	6.500E-02	1.448E+00	5.951E+00	2.000E-02	1.000E+02	5.760E+00	3.186E-02
7.000E-02	9.000E-02	1.483E+00	5.548E+00	4.000E-02	1.000E+02	5.760E+00	2.690E-02
9.000E-02	1.100E-01	5.693E+01	7.008E+00	2.000E-02	1.000E+02	5.760E+00	9.344E-03
1.250E-01	1.750E-01	6.190E+00	6.271E+00	5.000E-02	1.000E+02	5.760E+00	2.578E-02

ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1./SIN	SIGMA
LOWER	UPPER						

LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	1. 608E+00	1. 067E+01	1. 500E-03	1. 000E+00	5. 760E+00	2. 112E-01
1. 750E-02	2. 250E-02	1. 122E+00	8. 276E+00	1. 500E-03	1. 000E+00	5. 760E+00	6. 672E-02
2. 500E-02	3. 500E-02	1. 189E+00	8. 552E+00	4. 500E-03	1. 000E+00	5. 760E+00	6. 961E-02
3. 500E-02	4. 500E-02	1. 270E+00	7. 943E+00	9. 000E-03	1. 000E+00	5. 760E+00	4. 894E-02
4. 500E-02	5. 500E-02	1. 301E+00	7. 275E+00	1. 500E-02	1. 000E+00	5. 760E+00	4. 287E-02
5. 500E-02	6. 500E-02	2. 229E+00	8. 926E+00	3. 000E-02	1. 000E+00	5. 760E+00	1. 074E-01
7. 000E-02	9. 000E-02	2. 586E+00	8. 321E+00	6. 000E-02	1. 000E+00	5. 760E+00	7. 655E-02
9. 000E-02	1. 100E-01	3. 104E+02	1. 051E+01	3. 000E-02	1. 000E+00	5. 760E+00	2. 167E-02
1. 250E-01	1. 750E-01	2. 108E+01	9. 407E+00	7. 500E-02	1. 000E+00	5. 760E+00	4. 830E-02
ENERGY	BLDUP	M. F. P.		PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	1. 820E+00	1. 067E+01	1. 500E-03	2. 000E+00	5. 760E+00	1. 985E-01
1. 750E-02	2. 250E-02	1. 185E+00	8. 276E+00	1. 500E-03	2. 000E+00	5. 760E+00	6. 493E-02
2. 500E-02	3. 500E-02	1. 328E+00	8. 552E+00	4. 500E-03	2. 000E+00	5. 760E+00	7. 589E-02
3. 500E-02	4. 500E-02	1. 426E+00	7. 943E+00	9. 000E-03	2. 000E+00	5. 760E+00	7. 562E-02
4. 500E-02	5. 500E-02	1. 463E+00	7. 275E+00	1. 500E-02	2. 000E+00	5. 760E+00	4. 955E-02
5. 500E-02	6. 500E-02	2. 794E+00	8. 926E+00	3. 000E-02	2. 000E+00	5. 760E+00	9. 589E-02
7. 000E-02	9. 000E-02	2. 998E+00	8. 321E+00	6. 000E-02	2. 000E+00	5. 760E+00	7. 109E-02
9. 000E-02	1. 100E-01	7. 414E+02	1. 051E+01	3. 000E-02	2. 000E+00	5. 760E+00	1. 472E-02
1. 250E-01	1. 750E-01	3. 352E+01	9. 407E+00	7. 500E-02	2. 000E+00	5. 760E+00	3. 830E-02
ENERGY	BLDUP	M. F. P.		PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	2. 075E+00	1. 067E+01	1. 500E-03	1. 000E+01	5. 760E+00	1. 859E-01
1. 750E-02	2. 250E-02	1. 257E+00	8. 276E+00	1. 500E-03	1. 000E+01	5. 760E+00	6. 303E-02
2. 500E-02	3. 500E-02	1. 420E+00	8. 552E+00	4. 500E-03	1. 000E+01	5. 760E+00	7. 340E-02
3. 500E-02	4. 500E-02	1. 482E+00	7. 943E+00	9. 000E-03	1. 000E+01	5. 760E+00	7. 416E-02
4. 500E-02	5. 500E-02	1. 491E+00	7. 275E+00	1. 500E-02	1. 000E+01	5. 760E+00	4. 907E-02
5. 500E-02	6. 500E-02	2. 895E+00	8. 926E+00	3. 000E-02	1. 000E+01	5. 760E+00	9. 420E-02
7. 000E-02	9. 000E-02	3. 068E+00	8. 321E+00	6. 000E-02	1. 000E+01	5. 760E+00	7. 028E-02
9. 000E-02	1. 100E-01	7. 846E+02	1. 051E+01	3. 000E-02	1. 000E+01	5. 760E+00	1. 451E-02
1. 250E-01	1. 750E-01	3. 481E+01	9. 407E+00	7. 500E-02	1. 000E+01	5. 760E+00	3. 758E-02
ENERGY	BLDUP	M. F. P.		PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	2. 684E+00	1. 067E+01	1. 500E-03	2. 000E+01	5. 760E+00	1. 634E-01
1. 750E-02	2. 250E-02	1. 354E+00	8. 276E+00	1. 500E-03	2. 000E+01	5. 760E+00	6. 073E-02
2. 500E-02	3. 500E-02	1. 507E+00	8. 552E+00	4. 500E-03	2. 000E+01	5. 760E+00	7. 123E-02
3. 500E-02	4. 500E-02	1. 541E+00	7. 943E+00	9. 000E-03	2. 000E+01	5. 760E+00	7. 274E-02
4. 500E-02	5. 500E-02	1. 527E+00	7. 275E+00	1. 500E-02	2. 000E+01	5. 760E+00	4. 849E-02
5. 500E-02	6. 500E-02	3. 052E+00	8. 926E+00	3. 000E-02	2. 000E+01	5. 760E+00	9. 174E-02
7. 000E-02	9. 000E-02	3. 160E+00	8. 321E+00	6. 000E-02	2. 000E+01	5. 760E+00	6. 924E-02
9. 000E-02	1. 100E-01	8. 335E+02	1. 051E+01	3. 000E-02	2. 000E+01	5. 760E+00	1. 408E-02
1. 250E-01	1. 750E-01	3. 634E+01	9. 407E+00	7. 500E-02	2. 000E+01	5. 760E+00	3. 678E-02
ENERGY	BLDUP	M. F. P.		PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	7. 373E+00	1. 067E+01	1. 500E-03	1. 000E+02	5. 760E+00	9. 862E-02
1. 750E-02	2. 250E-02	2. 093E+00	8. 276E+00	1. 500E-03	1. 000E+02	5. 760E+00	4. 885E-02
2. 500E-02	3. 500E-02	2. 359E+00	8. 552E+00	4. 500E-03	1. 000E+02	5. 760E+00	5. 693E-02
3. 500E-02	4. 500E-02	2. 065E+00	7. 943E+00	9. 000E-03	1. 000E+02	5. 760E+00	6. 283E-02
4. 500E-02	5. 500E-02	1. 882E+00	7. 275E+00	1. 500E-02	1. 000E+02	5. 760E+00	4. 368E-02
5. 500E-02	6. 500E-02	4. 082E+00	8. 926E+00	3. 000E-02	1. 000E+02	5. 760E+00	7. 934E-02
7. 000E-02	9. 000E-02	3. 813E+00	8. 321E+00	6. 000E-02	1. 000E+02	5. 760E+00	6. 303E-02
9. 000E-02	1. 100E-01	1. 104E+03	1. 051E+01	3. 000E-02	1. 000E+02	5. 760E+00	1. 224E-02
1. 250E-01	1. 750E-01	4. 583E+01	9. 407E+00	7. 500E-02	1. 000E+02	5. 760E+00	3. 275E-02
ENERGY	BLDUP	M. F. P.		PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		

1. 250E-02	1. 750E-02	5. 802E+00	1. 422E+01	2. 000E-03	1. 000E+00	5. 760E+00	6. 579E-01
1. 750E-02	2. 250E-02	1. 100E+00	1. 103E+01	2. 000E-03	1. 000E+00	5. 760E+00	2. 676E-01
2. 500E-02	3. 500E-02	1. 477E+00	1. 140E+01	6. 000E-03	1. 000E+00	5. 760E+00	2. 598E-01
3. 500E-02	4. 500E-02	2. 373E+00	1. 059E+01	1. 200E-02	1. 000E+00	5. 760E+00	1. 345E-01
4. 500E-02	5. 500E-02	2. 199E+00	9. 701E+00	2. 000E-02	1. 000E+00	5. 760E+00	1. 359E-01
5. 500E-02	6. 500E-02	1. 006E+01	1. 190E+01	4. 000E-02	1. 000E+00	5. 760E+00	1. 817E-01
7. 000E-02	9. 000E-02	1. 103E+01	1. 110E+01	8. 000E-02	1. 000E+00	5. 760E+00	1. 354E-01
9. 000E-02	1. 100E-01	6. 303E+03	1. 402E+01	4. 000E-02	1. 000E+00	5. 760E+00	2. 635E-02
1. 250E-01	1. 750E-01	2. 771E+00	1. 254E+01	1. 000E-01	1. 000E+00	5. 760E+00	4. 115E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	9. 197E+00	1. 422E+01	2. 000E-03	2. 000E+00	5. 760E+00	5. 226E-01
1. 750E-02	2. 250E-02	1. 593E+00	1. 103E+01	2. 000E-03	2. 000E+00	5. 760E+00	2. 224E-01
2. 500E-02	3. 500E-02	2. 788E+00	1. 140E+01	6. 000E-03	2. 000E+00	5. 760E+00	1. 891E-01
3. 500E-02	4. 500E-02	3. 446E+00	1. 059E+01	1. 200E-02	2. 000E+00	5. 760E+00	1. 116E-01
4. 500E-02	5. 500E-02	2. 987E+00	9. 701E+00	2. 000E-02	2. 000E+00	5. 760E+00	1. 166E-01
5. 500E-02	6. 500E-02	1. 435E+01	1. 190E+01	4. 000E-02	2. 000E+00	5. 760E+00	1. 521E-01
7. 000E-02	9. 000E-02	1. 366E+01	1. 110E+01	8. 000E-02	2. 000E+00	5. 760E+00	1. 217E-01
9. 000E-02	1. 100E-01	1. 544E+04	1. 402E+01	4. 000E-02	2. 000E+00	5. 760E+00	1. 721E-02
1. 250E-01	1. 750E-01	9. 301E+01	1. 254E+01	1. 000E-01	2. 000E+00	5. 760E+00	9. 963E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	1. 425E+01	1. 422E+01	2. 000E-03	1. 000E+01	5. 760E+00	4. 198E-01
1. 750E-02	2. 250E-02	2. 004E+00	1. 103E+01	2. 000E-03	1. 000E+01	5. 760E+00	1. 983E-01
2. 500E-02	3. 500E-02	3. 513E+00	1. 140E+01	6. 000E-03	1. 000E+01	5. 760E+00	1. 684E-01
3. 500E-02	4. 500E-02	3. 786E+00	1. 059E+01	1. 200E-02	1. 000E+01	5. 760E+00	1. 065E-01
4. 500E-02	5. 500E-02	3. 082E+00	9. 701E+00	2. 000E-02	1. 000E+01	5. 760E+00	1. 148E-01
5. 500E-02	6. 500E-02	1. 513E+01	1. 190E+01	4. 000E-02	1. 000E+01	5. 760E+00	1. 481E-01
7. 000E-02	9. 000E-02	1. 409E+01	1. 110E+01	8. 000E-02	1. 000E+01	5. 760E+00	1. 198E-01
9. 000E-02	1. 100E-01	1. 633E+04	1. 402E+01	4. 000E-02	1. 000E+01	5. 760E+00	1. 756E-02
1. 250E-01	1. 750E-01	3. 182E+02	1. 254E+01	1. 000E-01	1. 000E+01	5. 760E+00	5. 881E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	2. 082E+01	1. 422E+01	2. 000E-03	2. 000E+01	5. 760E+00	3. 473E-01
1. 750E-02	2. 250E-02	2. 642E+00	1. 103E+01	2. 000E-03	2. 000E+01	5. 760E+00	1. 727E-01
2. 500E-02	3. 500E-02	4. 303E+00	1. 140E+01	6. 000E-03	2. 000E+01	5. 760E+00	1. 522E-01
3. 500E-02	4. 500E-02	4. 148E+00	1. 059E+01	1. 200E-02	2. 000E+01	5. 760E+00	1. 017E-01
4. 500E-02	5. 500E-02	3. 237E+00	9. 701E+00	2. 000E-02	2. 000E+01	5. 760E+00	1. 120E-01
5. 500E-02	6. 500E-02	1. 651E+01	1. 190E+01	4. 000E-02	2. 000E+01	5. 760E+00	1. 418E-01
7. 000E-02	9. 000E-02	1. 471E+01	1. 110E+01	8. 000E-02	2. 000E+01	5. 760E+00	1. 172E-01
9. 000E-02	1. 100E-01	1. 739E+04	1. 402E+01	4. 000E-02	2. 000E+01	5. 760E+00	1. 702E-02
1. 250E-01	1. 750E-01	3. 359E+02	1. 254E+01	1. 000E-01	2. 000E+01	5. 760E+00	5. 724E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	8. 571E+01	1. 422E+01	2. 000E-03	1. 000E+02	5. 760E+00	1. 712E-01
1. 750E-02	2. 250E-02	7. 722E+00	1. 103E+01	2. 000E-03	1. 000E+02	5. 760E+00	1. 010E-01
2. 500E-02	3. 500E-02	1. 072E+01	1. 140E+01	6. 000E-03	1. 000E+02	5. 760E+00	9. 640E-02
3. 500E-02	4. 500E-02	7. 483E+00	1. 059E+01	1. 200E-02	1. 000E+02	5. 760E+00	7. 575E-02
4. 500E-02	5. 500E-02	5. 144E+00	9. 701E+00	2. 000E-02	1. 000E+02	5. 760E+00	8. 883E-02
5. 500E-02	6. 500E-02	2. 476E+01	1. 190E+01	4. 000E-02	1. 000E+02	5. 760E+00	1. 158E-01
7. 000E-02	9. 000E-02	1. 906E+01	1. 110E+01	8. 000E-02	1. 000E+02	5. 760E+00	1. 030E-01
9. 000E-02	1. 100E-01	2. 331E+04	1. 402E+01	4. 000E-02	1. 000E+02	5. 760E+00	1. 470E-02
1. 250E-01	1. 750E-01	4. 302E+02	1. 254E+01	1. 000E-01	1. 000E+02	5. 760E+00	5. 127E-02

表A-2-(1) EGS4により求めたペンシルビーム状線源の再生係数 (90度)

①		②	③	④	⑤	⑥	⑦
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 097E+00	1. 067E+00	1. 000E-01	1. 000E+00	1. 000E+00	7. 152E-03
2. 500E-01	3. 500E-01	1. 117E+00	1. 064E+00	2. 500E-01	1. 000E+00	1. 000E+00	5. 969E-03
3. 500E-01	4. 500E-01	1. 156E+00	9. 795E-01	4. 000E-01	1. 000E+00	1. 000E+00	5. 041E-03
4. 500E-01	5. 500E-01	1. 194E+00	1. 025E+00	6. 000E-01	1. 000E+00	1. 000E+00	4. 776E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 102E+00	1. 067E+00	1. 000E-01	2. 000E+00	1. 000E+00	7. 136E-03
2. 500E-01	3. 500E-01	1. 118E+00	1. 064E+00	2. 500E-01	2. 000E+00	1. 000E+00	5. 966E-03
3. 500E-01	4. 500E-01	1. 162E+00	9. 795E-01	4. 000E-01	2. 000E+00	1. 000E+00	5. 026E-03
4. 500E-01	5. 500E-01	1. 208E+00	1. 025E+00	6. 000E-01	2. 000E+00	1. 000E+00	4. 749E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 107E+00	1. 067E+00	1. 000E-01	1. 000E+01	1. 000E+00	7. 118E-03
2. 500E-01	3. 500E-01	1. 112E+00	1. 064E+00	2. 500E-01	1. 000E+01	1. 000E+00	5. 982E-03
3. 500E-01	4. 500E-01	1. 158E+00	9. 795E-01	4. 000E-01	1. 000E+01	1. 000E+00	5. 036E-03
4. 500E-01	5. 500E-01	1. 210E+00	1. 025E+00	6. 000E-01	1. 000E+01	1. 000E+00	4. 746E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 108E+00	1. 067E+00	1. 000E-01	2. 000E+01	1. 000E+00	7. 116E-03
2. 500E-01	3. 500E-01	1. 112E+00	1. 064E+00	2. 500E-01	2. 000E+01	1. 000E+00	5. 981E-03
3. 500E-01	4. 500E-01	1. 158E+00	9. 795E-01	4. 000E-01	2. 000E+01	1. 000E+00	5. 035E-03
4. 500E-01	5. 500E-01	1. 210E+00	1. 025E+00	6. 000E-01	2. 000E+01	1. 000E+00	4. 745E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 102E+00	1. 067E+00	1. 000E-01	1. 000E+02	1. 000E+00	7. 135E-03
2. 500E-01	3. 500E-01	1. 114E+00	1. 064E+00	2. 500E-01	1. 000E+02	1. 000E+00	5. 975E-03
3. 500E-01	4. 500E-01	1. 161E+00	9. 795E-01	4. 000E-01	1. 000E+02	1. 000E+00	5. 030E-03
4. 500E-01	5. 500E-01	1. 215E+00	1. 025E+00	6. 000E-01	1. 000E+02	1. 000E+00	4. 735E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 121E+00	2. 134E+00	2. 000E-01	1. 000E+00	1. 000E+00	8. 300E-03
2. 500E-01	3. 500E-01	1. 161E+00	2. 128E+00	5. 000E-01	1. 000E+00	1. 000E+00	9. 177E-03
3. 500E-01	4. 500E-01	1. 224E+00	1. 959E+00	8. 000E-01	1. 000E+00	1. 000E+00	7. 763E-03
4. 500E-01	5. 500E-01	1. 295E+00	2. 051E+00	1. 200E+00	1. 000E+00	1. 000E+00	7. 123E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 126E+00	2. 134E+00	2. 000E-01	2. 000E+00	1. 000E+00	8. 282E-03
2. 500E-01	3. 500E-01	1. 167E+00	2. 128E+00	5. 000E-01	2. 000E+00	1. 000E+00	9. 155E-03
3. 500E-01	4. 500E-01	1. 239E+00	1. 959E+00	8. 000E-01	2. 000E+00	1. 000E+00	7. 946E-03
4. 500E-01	5. 500E-01	1. 331E+00	2. 051E+00	1. 200E+00	2. 000E+00	1. 000E+00	7. 026E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 129E+00	2. 134E+00	2. 000E-01	1. 000E+01	1. 000E+00	8. 268E-03
2. 500E-01	3. 500E-01	1. 168E+00	2. 128E+00	5. 000E-01	1. 000E+01	1. 000E+00	9. 151E-03
3. 500E-01	4. 500E-01	1. 243E+00	1. 959E+00	8. 000E-01	1. 000E+01	1. 000E+00	7. 931E-03
4. 500E-01	5. 500E-01	1. 335E+00	2. 051E+00	1. 200E+00	1. 000E+01	1. 000E+00	7. 015E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 130E+00	2. 134E+00	2. 000E-01	2. 000E+01	1. 000E+00	8. 267E-03
2. 500E-01	3. 500E-01	1. 168E+00	2. 128E+00	5. 000E-01	2. 000E+01	1. 000E+00	9. 150E-03
3. 500E-01	4. 500E-01	1. 244E+00	1. 959E+00	8. 000E-01	2. 000E+01	1. 000E+00	7. 930E-03
4. 500E-01	5. 500E-01	1. 335E+00	2. 051E+00	1. 200E+00	2. 000E+01	1. 000E+00	7. 014E-03



ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 131E+00	2. 134E+00	2. 000E-01	1. 000E+02	1. 000E+00	8. 263E-03
2. 500E-01	3. 500E-01	1. 170E+00	2. 128E+00	5. 000E-01	1. 000E+02	1. 000E+00	9. 143E-03
3. 500E-01	4. 500E-01	1. 244E+00	1. 959E+00	8. 000E-01	1. 000E+02	1. 000E+00	7. 928E-03
4. 500E-01	5. 500E-01	1. 335E+00	2. 051E+00	1. 200E+00	1. 000E+02	1. 000E+00	7. 014E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 121E+00	5. 335E+00	5. 000E-01	1. 000E+00	1. 000E+00	2. 261E-02
2. 500E-01	3. 500E-01	1. 200E+00	5. 320E+00	1. 250E+00	1. 000E+00	1. 000E+00	2. 763E-02
3. 500E-01	4. 500E-01	1. 318E+00	4. 897E+00	2. 000E+00	1. 000E+00	1. 000E+00	1. 918E-02
4. 500E-01	5. 500E-01	1. 444E+00	5. 127E+00	3. 000E+00	1. 000E+00	1. 000E+00	2. 503E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 129E+00	5. 335E+00	5. 000E-01	2. 000E+00	1. 000E+00	2. 253E-02
2. 500E-01	3. 500E-01	1. 214E+00	5. 320E+00	1. 250E+00	2. 000E+00	1. 000E+00	2. 747E-02
3. 500E-01	4. 500E-01	1. 372E+00	4. 897E+00	2. 000E+00	2. 000E+00	1. 000E+00	1. 879E-02
4. 500E-01	5. 500E-01	1. 562E+00	5. 127E+00	3. 000E+00	2. 000E+00	1. 000E+00	2. 407E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 130E+00	5. 335E+00	5. 000E-01	1. 000E+01	1. 000E+00	2. 252E-02
2. 500E-01	3. 500E-01	1. 214E+00	5. 320E+00	1. 250E+00	1. 000E+01	1. 000E+00	2. 746E-02
3. 500E-01	4. 500E-01	1. 379E+00	4. 897E+00	2. 000E+00	1. 000E+01	1. 000E+00	1. 875E-02
4. 500E-01	5. 500E-01	1. 601E+00	5. 127E+00	3. 000E+00	1. 000E+01	1. 000E+00	2. 378E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 130E+00	5. 335E+00	5. 000E-01	2. 000E+01	1. 000E+00	2. 252E-02
2. 500E-01	3. 500E-01	1. 214E+00	5. 320E+00	1. 250E+00	2. 000E+01	1. 000E+00	2. 746E-02
3. 500E-01	4. 500E-01	1. 379E+00	4. 897E+00	2. 000E+00	2. 000E+01	1. 000E+00	1. 874E-02
4. 500E-01	5. 500E-01	1. 601E+00	5. 127E+00	3. 000E+00	2. 000E+01	1. 000E+00	2. 377E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 130E+00	5. 335E+00	5. 000E-01	1. 000E+02	1. 000E+00	2. 252E-02
2. 500E-01	3. 500E-01	1. 215E+00	5. 320E+00	1. 250E+00	1. 000E+02	1. 000E+00	2. 745E-02
3. 500E-01	4. 500E-01	1. 380E+00	4. 897E+00	2. 000E+00	1. 000E+02	1. 000E+00	1. 874E-02
4. 500E-01	5. 500E-01	1. 602E+00	5. 127E+00	3. 000E+00	1. 000E+02	1. 000E+00	2. 377E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 055E+00	7. 469E+00	7. 000E-01	1. 000E+00	1. 000E+00	6. 333E-02
2. 500E-01	3. 500E-01	1. 145E+00	7. 447E+00	1. 750E+00	1. 000E+00	1. 000E+00	6. 264E-02
3. 500E-01	4. 500E-01	1. 327E+00	6. 856E+00	2. 800E+00	1. 000E+00	1. 000E+00	4. 813E-02
4. 500E-01	5. 500E-01	1. 469E+00	7. 177E+00	4. 200E+00	1. 000E+00	1. 000E+00	5. 443E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 062E+00	7. 469E+00	7. 000E-01	2. 000E+00	1. 000E+00	6. 311E-02
2. 500E-01	3. 500E-01	1. 172E+00	7. 447E+00	1. 750E+00	2. 000E+00	1. 000E+00	6. 189E-02
3. 500E-01	4. 500E-01	1. 427E+00	6. 856E+00	2. 800E+00	2. 000E+00	1. 000E+00	4. 642E-02
4. 500E-01	5. 500E-01	1. 638E+00	7. 177E+00	4. 200E+00	2. 000E+00	1. 000E+00	5. 155E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 062E+00	7. 469E+00	7. 000E-01	1. 000E+01	1. 000E+00	6. 311E-02
2. 500E-01	3. 500E-01	1. 172E+00	7. 447E+00	1. 750E+00	1. 000E+01	1. 000E+00	6. 190E-02
3. 500E-01	4. 500E-01	1. 442E+00	6. 856E+00	2. 800E+00	1. 000E+01	1. 000E+00	4. 617E-02
4. 500E-01	5. 500E-01	1. 713E+00	7. 177E+00	4. 200E+00	1. 000E+01	1. 000E+00	5. 041E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 062E+00	7. 469E+00	7. 000E-01	1. 000E+01	1. 000E+00	6. 311E-02
2. 500E-01	3. 500E-01	1. 172E+00	7. 447E+00	1. 750E+00	1. 000E+01	1. 000E+00	6. 190E-02
3. 500E-01	4. 500E-01	1. 442E+00	6. 856E+00	2. 800E+00	1. 000E+01	1. 000E+00	4. 617E-02
4. 500E-01	5. 500E-01	1. 713E+00	7. 177E+00	4. 200E+00	1. 000E+01	1. 000E+00	5. 041E-02

1. 750E-01	2. 250E-01	1. 062E+00	7. 469E+00	7. 000E-01	2. 000E+01	1. 000E+00	6. 311E-02
2. 500E-01	3. 500E-01	1. 172E+00	7. 447E+00	1. 750E+00	2. 000E+01	1. 000E+00	6. 190E-02
3. 500E-01	4. 500E-01	1. 442E+00	6. 856E+00	2. 800E+00	2. 000E+01	1. 000E+00	4. 617E-02
4. 500E-01	5. 500E-01	1. 713E+00	7. 177E+00	4. 200E+00	2. 000E+01	1. 000E+00	5. 041E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 062E+00	7. 469E+00	7. 000E-01	1. 000E+02	1. 000E+00	6. 311E-02
2. 500E-01	3. 500E-01	1. 172E+00	7. 447E+00	1. 750E+00	1. 000E+02	1. 000E+00	6. 190E-02
3. 500E-01	4. 500E-01	1. 442E+00	6. 856E+00	2. 800E+00	1. 000E+02	1. 000E+00	4. 617E-02
4. 500E-01	5. 500E-01	1. 713E+00	7. 177E+00	4. 200E+00	1. 000E+02	1. 000E+00	5. 041E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	8. 937E-01	1. 067E+01	1. 000E+00	1. 000E+00	1. 000E+00	2. 568E-01
2. 500E-01	3. 500E-01	1. 382E+00	1. 064E+01	2. 500E+00	1. 000E+00	1. 000E+00	1. 743E-01
3. 500E-01	4. 500E-01	1. 230E+00	9. 795E+00	4. 000E+00	1. 000E+00	1. 000E+00	1. 593E-01
4. 500E-01	5. 500E-01	1. 333E+00	1. 025E+01	6. 000E+00	1. 000E+00	1. 000E+00	2. 255E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	8. 937E-01	1. 067E+01	1. 000E+00	2. 000E+00	1. 000E+00	2. 568E-01
2. 500E-01	3. 500E-01	1. 382E+00	1. 064E+01	2. 500E+00	2. 000E+00	1. 000E+00	1. 743E-01
3. 500E-01	4. 500E-01	1. 329E+00	9. 795E+00	4. 000E+00	2. 000E+00	1. 000E+00	1. 533E-01
4. 500E-01	5. 500E-01	1. 527E+00	1. 025E+01	6. 000E+00	2. 000E+00	1. 000E+00	2. 107E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	8. 937E-01	1. 067E+01	1. 000E+00	1. 000E+01	1. 000E+00	2. 568E-01
2. 500E-01	3. 500E-01	1. 382E+00	1. 064E+01	2. 500E+00	1. 000E+01	1. 000E+00	1. 743E-01
3. 500E-01	4. 500E-01	1. 410E+00	9. 795E+00	4. 000E+00	1. 000E+01	1. 000E+00	1. 488E-01
4. 500E-01	5. 500E-01	1. 743E+00	1. 025E+01	6. 000E+00	1. 000E+01	1. 000E+00	1. 972E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	8. 937E-01	1. 067E+01	1. 000E+00	2. 000E+01	1. 000E+00	2. 568E-01
2. 500E-01	3. 500E-01	1. 382E+00	1. 064E+01	2. 500E+00	2. 000E+01	1. 000E+00	1. 743E-01
3. 500E-01	4. 500E-01	1. 410E+00	9. 795E+00	4. 000E+00	2. 000E+01	1. 000E+00	1. 488E-01
4. 500E-01	5. 500E-01	1. 743E+00	1. 025E+01	6. 000E+00	2. 000E+01	1. 000E+00	1. 972E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	8. 937E-01	1. 067E+01	1. 000E+00	1. 000E+02	1. 000E+00	2. 568E-01
2. 500E-01	3. 500E-01	1. 382E+00	1. 064E+01	2. 500E+00	1. 000E+02	1. 000E+00	1. 743E-01
3. 500E-01	4. 500E-01	1. 410E+00	9. 795E+00	4. 000E+00	1. 000E+02	1. 000E+00	1. 488E-01
4. 500E-01	5. 500E-01	1. 743E+00	1. 025E+01	6. 000E+00	1. 000E+02	1. 000E+00	1. 972E-01

表A-2-(2) EGS 4により求めたペンシルビーム状線源の再生係数 (60度)

①		②	③	④	⑤	⑥	⑦
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 101E+00	1. 232E+00	1. 000E-01	1. 000E+00	1. 155E+00	5. 720E-03
2. 500E-01	3. 500E-01	1. 118E+00	1. 229E+00	2. 500E-01	1. 000E+00	1. 155E+00	6. 479E-03
3. 500E-01	4. 500E-01	1. 156E+00	1. 131E+00	4. 000E-01	1. 000E+00	1. 155E+00	5. 426E-03
4. 500E-01	5. 500E-01	1. 200E+00	1. 184E+00	6. 000E-01	1. 000E+00	1. 155E+00	5. 161E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 106E+00	1. 232E+00	1. 000E-01	2. 000E+00	1. 155E+00	7. 325E-03
2. 500E-01	3. 500E-01	1. 121E+00	1. 229E+00	2. 500E-01	2. 000E+00	1. 155E+00	6. 472E-03
3. 500E-01	4. 500E-01	1. 165E+00	1. 131E+00	4. 000E-01	2. 000E+00	1. 155E+00	5. 405E-03
4. 500E-01	5. 500E-01	1. 219E+00	1. 184E+00	6. 000E-01	2. 000E+00	1. 155E+00	5. 119E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 109E+00	1. 232E+00	1. 000E-01	1. 000E+01	1. 155E+00	7. 316E-03
2. 500E-01	3. 500E-01	1. 122E+00	1. 229E+00	2. 500E-01	1. 000E+01	1. 155E+00	6. 468E-03
3. 500E-01	4. 500E-01	1. 167E+00	1. 131E+00	4. 000E-01	1. 000E+01	1. 155E+00	5. 400E-03
4. 500E-01	5. 500E-01	1. 230E+00	1. 184E+00	6. 000E-01	1. 000E+01	1. 155E+00	5. 098E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 110E+00	1. 232E+00	1. 000E-01	2. 000E+01	1. 155E+00	7. 313E-03
2. 500E-01	3. 500E-01	1. 123E+00	1. 229E+00	2. 500E-01	2. 000E+01	1. 155E+00	6. 467E-03
3. 500E-01	4. 500E-01	1. 167E+00	1. 131E+00	4. 000E-01	2. 000E+01	1. 155E+00	5. 399E-03
4. 500E-01	5. 500E-01	1. 230E+00	1. 184E+00	6. 000E-01	2. 000E+01	1. 155E+00	5. 097E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 111E+00	1. 232E+00	1. 000E-01	1. 000E+02	1. 155E+00	7. 308E-03
2. 500E-01	3. 500E-01	1. 121E+00	1. 229E+00	2. 500E-01	1. 000E+02	1. 155E+00	6. 473E-03
3. 500E-01	4. 500E-01	1. 164E+00	1. 131E+00	4. 000E-01	1. 000E+02	1. 155E+00	5. 408E-03
4. 500E-01	5. 500E-01	1. 226E+00	1. 184E+00	6. 000E-01	1. 000E+02	1. 155E+00	5. 105E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 122E+00	2. 464E+00	2. 000E-01	1. 000E+00	1. 155E+00	1. 354E-02
2. 500E-01	3. 500E-01	1. 160E+00	2. 457E+00	5. 000E-01	1. 000E+00	1. 155E+00	1. 139E-02
3. 500E-01	4. 500E-01	1. 223E+00	2. 262E+00	8. 000E-01	1. 000E+00	1. 155E+00	8. 580E-03
4. 500E-01	5. 500E-01	1. 288E+00	2. 368E+00	1. 200E+00	1. 000E+00	1. 155E+00	7. 751E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 128E+00	2. 464E+00	2. 000E-01	2. 000E+00	1. 155E+00	1. 350E-02
2. 500E-01	3. 500E-01	1. 168E+00	2. 457E+00	5. 000E-01	2. 000E+00	1. 155E+00	1. 135E-02
3. 500E-01	4. 500E-01	1. 246E+00	2. 262E+00	8. 000E-01	2. 000E+00	1. 155E+00	8. 562E-03
4. 500E-01	5. 500E-01	1. 341E+00	2. 368E+00	1. 200E+00	2. 000E+00	1. 155E+00	7. 596E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 133E+00	2. 464E+00	2. 000E-01	1. 000E+01	1. 155E+00	1. 347E-02
2. 500E-01	3. 500E-01	1. 169E+00	2. 457E+00	5. 000E-01	1. 000E+01	1. 155E+00	1. 134E-02
3. 500E-01	4. 500E-01	1. 252E+00	2. 262E+00	8. 000E-01	1. 000E+01	1. 155E+00	8. 544E-03
4. 500E-01	5. 500E-01	1. 353E+00	2. 368E+00	1. 200E+00	1. 000E+01	1. 155E+00	7. 561E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 133E+00	2. 464E+00	2. 000E-01	2. 000E+01	1. 155E+00	1. 347E-02
2. 500E-01	3. 500E-01	1. 169E+00	2. 457E+00	5. 000E-01	2. 000E+01	1. 155E+00	1. 134E-02
3. 500E-01	4. 500E-01	1. 252E+00	2. 262E+00	8. 000E-01	2. 000E+01	1. 155E+00	8. 543E-03
4. 500E-01	5. 500E-01	1. 354E+00	2. 368E+00	1. 200E+00	2. 000E+01	1. 155E+00	7. 560E-03

ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1./SIN	SIGMA
LOWER	UPPER						
1. 750E-01	2. 250E-01	1. 133E+00	2. 464E+00	2. 000E-01	1. 000E+02	1. 155E+00	1. 347E-02
2. 500E-01	3. 500E-01	1. 170E+00	2. 457E+00	5. 000E-01	1. 000E+02	1. 155E+00	1. 134E-02
3. 500E-01	4. 500E-01	1. 251E+00	2. 262E+00	8. 000E-01	1. 000E+02	1. 155E+00	8. 546E-03
4. 500E-01	5. 500E-01	1. 353E+00	2. 368E+00	1. 200E+00	1. 000E+02	1. 155E+00	7. 562E-03
ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1./SIN	SIGMA
LOWER	UPPER						
1. 750E-01	2. 250E-01	1. 131E+00	6. 161E+00	5. 000E-01	1. 000E+00	1. 155E+00	3. 629E-02
2. 500E-01	3. 500E-01	1. 214E+00	6. 143E+00	1. 250E+00	1. 000E+00	1. 155E+00	3. 533E-02
3. 500E-01	4. 500E-01	1. 316E+00	5. 655E+00	2. 000E+00	1. 000E+00	1. 155E+00	2. 922E-02
4. 500E-01	5. 500E-01	1. 411E+00	5. 920E+00	3. 000E+00	1. 000E+00	1. 155E+00	3. 178E-02
ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1./SIN	SIGMA
LOWER	UPPER						
1. 750E-01	2. 250E-01	1. 136E+00	6. 161E+00	5. 000E-01	2. 000E+00	1. 155E+00	3. 621E-02
2. 500E-01	3. 500E-01	1. 246E+00	6. 143E+00	1. 250E+00	2. 000E+00	1. 155E+00	3. 487E-02
3. 500E-01	4. 500E-01	1. 399E+00	5. 655E+00	2. 000E+00	2. 000E+00	1. 155E+00	2. 834E-02
4. 500E-01	5. 500E-01	1. 575E+00	5. 920E+00	3. 000E+00	2. 000E+00	1. 155E+00	3. 009E-02
ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1./SIN	SIGMA
LOWER	UPPER						
1. 750E-01	2. 250E-01	1. 138E+00	6. 161E+00	5. 000E-01	1. 000E+01	1. 155E+00	3. 618E-02
2. 500E-01	3. 500E-01	1. 247E+00	6. 143E+00	1. 250E+00	1. 000E+01	1. 155E+00	3. 486E-02
3. 500E-01	4. 500E-01	1. 419E+00	5. 655E+00	2. 000E+00	1. 000E+01	1. 155E+00	2. 815E-02
4. 500E-01	5. 500E-01	1. 666E+00	5. 920E+00	3. 000E+00	1. 000E+01	1. 155E+00	2. 925E-02
ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1./SIN	SIGMA
LOWER	UPPER						
1. 750E-01	2. 250E-01	1. 138E+00	6. 161E+00	5. 000E-01	2. 000E+01	1. 155E+00	3. 618E-02
2. 500E-01	3. 500E-01	1. 248E+00	6. 143E+00	1. 250E+00	2. 000E+01	1. 155E+00	3. 484E-02
3. 500E-01	4. 500E-01	1. 419E+00	5. 655E+00	2. 000E+00	2. 000E+01	1. 155E+00	2. 815E-02
4. 500E-01	5. 500E-01	1. 666E+00	5. 920E+00	3. 000E+00	2. 000E+01	1. 155E+00	2. 925E-02
ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1./SIN	SIGMA
LOWER	UPPER						
1. 750E-01	2. 250E-01	1. 138E+00	6. 161E+00	5. 000E-01	1. 000E+02	1. 155E+00	3. 618E-02
2. 500E-01	3. 500E-01	1. 249E+00	6. 143E+00	1. 250E+00	1. 000E+02	1. 155E+00	3. 483E-02
3. 500E-01	4. 500E-01	1. 420E+00	5. 655E+00	2. 000E+00	1. 000E+02	1. 155E+00	2. 814E-02
4. 500E-01	5. 500E-01	1. 666E+00	5. 920E+00	3. 000E+00	1. 000E+02	1. 155E+00	2. 925E-02
ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1./SIN	SIGMA
LOWER	UPPER						
1. 750E-01	2. 250E-01	1. 050E+00	8. 625E+00	7. 000E-01	1. 000E+00	1. 155E+00	1. 049E-01
2. 500E-01	3. 500E-01	1. 281E+00	8. 600E+00	1. 750E+00	1. 000E+00	1. 155E+00	1. 054E-01
3. 500E-01	4. 500E-01	1. 345E+00	7. 917E+00	2. 800E+00	1. 000E+00	1. 155E+00	7. 717E-02
4. 500E-01	5. 500E-01	1. 394E+00	8. 288E+00	4. 200E+00	1. 000E+00	1. 155E+00	9. 262E-02
ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1./SIN	SIGMA
LOWER	UPPER						
1. 750E-01	2. 250E-01	1. 055E+00	8. 625E+00	7. 000E-01	2. 000E+00	1. 155E+00	1. 047E-01
2. 500E-01	3. 500E-01	1. 331E+00	8. 600E+00	1. 750E+00	2. 000E+00	1. 155E+00	1. 117E-01
3. 500E-01	4. 500E-01	1. 464E+00	7. 917E+00	2. 800E+00	2. 000E+00	1. 155E+00	7. 399E-02
4. 500E-01	5. 500E-01	1. 621E+00	8. 288E+00	4. 200E+00	2. 000E+00	1. 155E+00	8. 589E-02
ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1./SIN	SIGMA
LOWER	UPPER						
1. 750E-01	2. 250E-01	1. 055E+00	8. 625E+00	7. 000E-01	1. 000E+01	1. 155E+00	1. 047E-01
2. 500E-01	3. 500E-01	1. 336E+00	8. 600E+00	1. 750E+00	1. 000E+01	1. 155E+00	1. 115E-01
3. 500E-01	4. 500E-01	1. 505E+00	7. 917E+00	2. 800E+00	1. 000E+01	1. 155E+00	7. 296E-02
4. 500E-01	5. 500E-01	1. 844E+00	8. 288E+00	4. 200E+00	1. 000E+01	1. 155E+00	8. 627E-02
ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1./SIN	SIGMA
LOWER	UPPER						
1. 750E-01	2. 250E-01	1. 055E+00	8. 625E+00	7. 000E-01	1. 000E+01	1. 155E+00	1. 047E-01
2. 500E-01	3. 500E-01	1. 336E+00	8. 600E+00	1. 750E+00	1. 000E+01	1. 155E+00	1. 115E-01
3. 500E-01	4. 500E-01	1. 505E+00	7. 917E+00	2. 800E+00	1. 000E+01	1. 155E+00	7. 296E-02
4. 500E-01	5. 500E-01	1. 844E+00	8. 288E+00	4. 200E+00	1. 000E+01	1. 155E+00	8. 627E-02

1.750E-01	2.250E-01	1.055E+00	8.625E+00	7.000E-01	2.000E+01	1.155E+00	1.047E-01
2.500E-01	3.500E-01	1.336E+00	8.600E+00	1.750E+00	2.000E+01	1.155E+00	1.115E-01
3.500E-01	4.500E-01	1.505E+00	7.917E+00	2.800E+00	2.000E+01	1.155E+00	7.296E-02
4.500E-01	5.500E-01	1.844E+00	8.288E+00	4.200E+00	2.000E+01	1.155E+00	8.627E-02
ENERGY		BLDUP.	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.750E-01	2.250E-01	1.055E+00	8.625E+00	7.000E-01	1.000E+02	1.155E+00	1.047E-01
2.500E-01	3.500E-01	1.340E+00	8.600E+00	1.750E+00	1.000E+02	1.155E+00	1.113E-01
3.500E-01	4.500E-01	1.505E+00	7.917E+00	2.800E+00	1.000E+02	1.155E+00	7.296E-02
4.500E-01	5.500E-01	1.844E+00	8.288E+00	4.200E+00	1.000E+02	1.155E+00	8.627E-02

表A-2-(3) EGS 4により求めたペンシルビーム状線源の再生係数 (40度)

①		②	③	④	⑤	⑥	⑦
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 107E+00	1. 660E+00	1. 000E-01	1. 000E+00	1. 556E+00	8. 553E-03
2. 500E-01	3. 500E-01	1. 120E+00	1. 655E+00	2. 500E-01	1. 000E+00	1. 556E+00	7. 629E-03
3. 500E-01	4. 500E-01	1. 157E+00	1. 524E+00	4. 000E-01	1. 000E+00	1. 556E+00	6. 369E-03
4. 500E-01	5. 500E-01	1. 201E+00	1. 595E+00	6. 000E-01	1. 000E+00	1. 556E+00	5. 492E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 114E+00	1. 660E+00	1. 000E-01	2. 000E+00	1. 556E+00	8. 525E-03
2. 500E-01	3. 500E-01	1. 125E+00	1. 655E+00	2. 500E-01	2. 000E+00	1. 556E+00	7. 611E-03
3. 500E-01	4. 500E-01	1. 176E+00	1. 524E+00	4. 000E-01	2. 000E+00	1. 556E+00	6. 319E-03
4. 500E-01	5. 500E-01	1. 237E+00	1. 595E+00	6. 000E-01	2. 000E+00	1. 556E+00	5. 410E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 117E+00	1. 660E+00	1. 000E-01	1. 000E+01	1. 556E+00	8. 514E-03
2. 500E-01	3. 500E-01	1. 126E+00	1. 655E+00	2. 500E-01	1. 000E+01	1. 556E+00	7. 606E-03
3. 500E-01	4. 500E-01	1. 182E+00	1. 524E+00	4. 000E-01	1. 000E+01	1. 556E+00	6. 303E-03
4. 500E-01	5. 500E-01	1. 248E+00	1. 595E+00	6. 000E-01	1. 000E+01	1. 556E+00	5. 387E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 118E+00	1. 660E+00	1. 000E-01	2. 000E+01	1. 556E+00	8. 510E-03
2. 500E-01	3. 500E-01	1. 127E+00	1. 655E+00	2. 500E-01	2. 000E+01	1. 556E+00	7. 604E-03
3. 500E-01	4. 500E-01	1. 182E+00	1. 524E+00	4. 000E-01	2. 000E+01	1. 556E+00	6. 301E-03
4. 500E-01	5. 500E-01	1. 249E+00	1. 595E+00	6. 000E-01	2. 000E+01	1. 556E+00	5. 386E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 121E+00	1. 660E+00	1. 000E-01	1. 000E+02	1. 556E+00	8. 499E-03
2. 500E-01	3. 500E-01	1. 126E+00	1. 655E+00	2. 500E-01	1. 000E+02	1. 556E+00	7. 606E-03
3. 500E-01	4. 500E-01	1. 183E+00	1. 524E+00	4. 000E-01	1. 000E+02	1. 556E+00	6. 299E-03
4. 500E-01	5. 500E-01	1. 248E+00	1. 595E+00	6. 000E-01	1. 000E+02	1. 556E+00	5. 388E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 128E+00	3. 320E+00	2. 000E-01	1. 000E+00	1. 556E+00	1. 118E-02
2. 500E-01	3. 500E-01	1. 175E+00	3. 310E+00	5. 000E-01	1. 000E+00	1. 556E+00	1. 524E-02
3. 500E-01	4. 500E-01	1. 211E+00	3. 048E+00	8. 000E-01	1. 000E+00	1. 556E+00	1. 274E-02
4. 500E-01	5. 500E-01	1. 282E+00	3. 190E+00	1. 200E+00	1. 000E+00	1. 556E+00	1. 223E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 136E+00	3. 320E+00	2. 000E-01	2. 000E+00	1. 556E+00	1. 114E-02
2. 500E-01	3. 500E-01	1. 196E+00	3. 310E+00	5. 000E-01	2. 000E+00	1. 556E+00	1. 510E-02
3. 500E-01	4. 500E-01	1. 276E+00	3. 048E+00	8. 000E-01	2. 000E+00	1. 556E+00	1. 242E-02
4. 500E-01	5. 500E-01	1. 387E+00	3. 190E+00	1. 200E+00	2. 000E+00	1. 556E+00	1. 176E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 139E+00	3. 320E+00	2. 000E-01	1. 000E+01	1. 556E+00	1. 113E-02
2. 500E-01	3. 500E-01	1. 199E+00	3. 310E+00	5. 000E-01	1. 000E+01	1. 556E+00	1. 508E-02
3. 500E-01	4. 500E-01	1. 286E+00	3. 048E+00	8. 000E-01	1. 000E+01	1. 556E+00	1. 237E-02
4. 500E-01	5. 500E-01	1. 422E+00	3. 190E+00	1. 200E+00	1. 000E+01	1. 556E+00	1. 161E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 140E+00	3. 320E+00	2. 000E-01	2. 000E+01	1. 556E+00	1. 113E-02
2. 500E-01	3. 500E-01	1. 200E+00	3. 310E+00	5. 000E-01	2. 000E+01	1. 556E+00	1. 508E-02
3. 500E-01	4. 500E-01	1. 286E+00	3. 048E+00	8. 000E-01	2. 000E+01	1. 556E+00	1. 237E-02
4. 500E-01	5. 500E-01	1. 423E+00	3. 190E+00	1. 200E+00	2. 000E+01	1. 556E+00	1. 161E-02

ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.750E-01	2.250E-01	1.143E+00	3.320E+00	2.000E-01	1.000E+02	1.556E+00	1.111E-02
2.500E-01	3.500E-01	1.201E+00	3.310E+00	5.000E-01	1.000E+02	1.556E+00	1.507E-02
3.500E-01	4.500E-01	1.287E+00	3.048E+00	8.000E-01	1.000E+02	1.556E+00	1.236E-02
4.500E-01	5.500E-01	1.424E+00	3.190E+00	1.200E+00	1.000E+02	1.556E+00	1.160E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.750E-01	2.250E-01	1.205E+00	8.300E+00	5.000E-01	1.000E+00	1.556E+00	9.239E-02
2.500E-01	3.500E-01	1.176E+00	8.276E+00	1.250E+00	1.000E+00	1.556E+00	9.912E-02
3.500E-01	4.500E-01	1.263E+00	7.619E+00	2.000E+00	1.000E+00	1.556E+00	6.870E-02
4.500E-01	5.500E-01	1.102E+00	7.975E+00	3.000E+00	1.000E+00	1.556E+00	9.603E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.750E-01	2.250E-01	1.241E+00	8.300E+00	5.000E-01	2.000E+00	1.556E+00	9.102E-02
2.500E-01	3.500E-01	1.306E+00	8.276E+00	1.250E+00	2.000E+00	1.556E+00	9.405E-02
3.500E-01	4.500E-01	1.459E+00	7.619E+00	2.000E+00	2.000E+00	1.556E+00	6.391E-02
4.500E-01	5.500E-01	1.344E+00	7.975E+00	3.000E+00	2.000E+00	1.556E+00	8.749E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.750E-01	2.250E-01	1.241E+00	8.300E+00	5.000E-01	1.000E+01	1.556E+00	9.102E-02
2.500E-01	3.500E-01	1.364E+00	8.276E+00	1.250E+00	1.000E+01	1.556E+00	9.201E-02
3.500E-01	4.500E-01	1.644E+00	7.619E+00	2.000E+00	1.000E+01	1.556E+00	6.020E-02
4.500E-01	5.500E-01	1.860E+00	7.975E+00	3.000E+00	1.000E+01	1.556E+00	7.437E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.750E-01	2.250E-01	1.244E+00	8.300E+00	5.000E-01	2.000E+01	1.556E+00	9.091E-02
2.500E-01	3.500E-01	1.367E+00	8.276E+00	1.250E+00	2.000E+01	1.556E+00	9.192E-02
3.500E-01	4.500E-01	1.644E+00	7.619E+00	2.000E+00	2.000E+01	1.556E+00	6.020E-02
4.500E-01	5.500E-01	1.863E+00	7.975E+00	3.000E+00	2.000E+01	1.556E+00	7.432E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.750E-01	2.250E-01	1.245E+00	8.300E+00	5.000E-01	1.000E+02	1.556E+00	9.088E-02
2.500E-01	3.500E-01	1.370E+00	8.276E+00	1.250E+00	1.000E+02	1.556E+00	9.181E-02
3.500E-01	4.500E-01	1.646E+00	7.619E+00	2.000E+00	1.000E+02	1.556E+00	6.018E-02
4.500E-01	5.500E-01	1.864E+00	7.975E+00	3.000E+00	1.000E+02	1.556E+00	7.429E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.750E-01	2.250E-01	1.513E+00	1.162E+01	7.000E-01	1.000E+00	1.556E+00	3.048E-01
2.500E-01	3.500E-01	5.595E-01	1.159E+01	1.750E+00	1.000E+00	1.556E+00	4.872E-01
3.500E-01	4.500E-01	1.276E+00	1.067E+01	2.800E+00	1.000E+00	1.556E+00	2.533E-01
4.500E-01	5.500E-01	9.421E-01	1.117E+01	4.200E+00	1.000E+00	1.556E+00	3.684E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.750E-01	2.250E-01	1.591E+00	1.162E+01	7.000E-01	2.000E+00	1.556E+00	2.972E-01
2.500E-01	3.500E-01	6.391E-01	1.159E+01	1.750E+00	2.000E+00	1.556E+00	5.764E-01
3.500E-01	4.500E-01	1.458E+00	1.067E+01	2.800E+00	2.000E+00	1.556E+00	2.691E-01
4.500E-01	5.500E-01	1.091E+00	1.117E+01	4.200E+00	2.000E+00	1.556E+00	3.803E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.750E-01	2.250E-01	1.591E+00	1.162E+01	7.000E-01	1.000E+01	1.556E+00	2.972E-01
2.500E-01	3.500E-01	7.907E-01	1.159E+01	1.750E+00	1.000E+01	1.556E+00	5.182E-01
3.500E-01	4.500E-01	2.240E+00	1.067E+01	2.800E+00	1.000E+01	1.556E+00	2.364E-01
4.500E-01	5.500E-01	2.225E+00	1.117E+01	4.200E+00	1.000E+01	1.556E+00	2.758E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.750E-01	2.250E-01	1.591E+00	1.162E+01	7.000E-01	1.000E+01	1.556E+00	2.972E-01
2.500E-01	3.500E-01	7.907E-01	1.159E+01	1.750E+00	1.000E+01	1.556E+00	5.182E-01
3.500E-01	4.500E-01	2.240E+00	1.067E+01	2.800E+00	1.000E+01	1.556E+00	2.364E-01
4.500E-01	5.500E-01	2.225E+00	1.117E+01	4.200E+00	1.000E+01	1.556E+00	2.758E-01

1. 750E-01	2. 250E-01	1. 591E+00	1. 162E+01	7. 000E-01	2. 000E+01	1. 556E+00	2. 972E-01
2. 500E-01	3. 500E-01	7. 907E-01	1. 159E+01	1. 750E+00	2. 000E+01	1. 556E+00	5. 182E-01
3. 500E-01	4. 500E-01	2. 240E+00	1. 067E+01	2. 800E+00	2. 000E+01	1. 556E+00	2. 364E-01
4. 500E-01	5. 500E-01	2. 225E+00	1. 117E+01	4. 200E+00	2. 000E+01	1. 556E+00	2. 758E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 591E+00	1. 162E+01	7. 000E-01	1. 000E+02	1. 556E+00	2. 972E-01
2. 500E-01	3. 500E-01	7. 907E-01	1. 159E+01	1. 750E+00	1. 000E+02	1. 556E+00	5. 182E-01
3. 500E-01	4. 500E-01	2. 240E+00	1. 067E+01	2. 800E+00	1. 000E+02	1. 556E+00	2. 364E-01
4. 500E-01	5. 500E-01	2. 225E+00	1. 117E+01	4. 200E+00	1. 000E+02	1. 556E+00	2. 758E-01



表A-2-(4) EGS4により求めたペンシルビーム状線源の再生係数 (10度)

①		②	③	④	⑤	⑥	⑦
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 040E+00	1. 229E+00	2. 000E-02	1. 000E+00	5. 760E+00	8. 105E-03
2. 500E-01	3. 500E-01	1. 048E+00	1. 226E+00	5. 000E-02	1. 000E+00	5. 760E+00	6. 715E-03
3. 500E-01	4. 500E-01	1. 067E+00	1. 128E+00	8. 000E-02	1. 000E+00	5. 760E+00	5. 626E-03
4. 500E-01	5. 500E-01	1. 041E+00	1. 181E+00	1. 200E-01	1. 000E+00	5. 760E+00	5. 600E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 069E+00	1. 229E+00	2. 000E-02	2. 000E+00	5. 760E+00	7. 994E-03
2. 500E-01	3. 500E-01	1. 055E+00	1. 226E+00	5. 000E-02	2. 000E+00	5. 760E+00	6. 693E-03
3. 500E-01	4. 500E-01	1. 070E+00	1. 128E+00	8. 000E-02	2. 000E+00	5. 760E+00	5. 721E-03
4. 500E-01	5. 500E-01	1. 090E+00	1. 181E+00	1. 200E-01	2. 000E+00	5. 760E+00	5. 474E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 072E+00	1. 229E+00	2. 000E-02	4. 000E+00	5. 760E+00	7. 983E-03
2. 500E-01	3. 500E-01	1. 055E+00	1. 226E+00	5. 000E-02	4. 000E+00	5. 760E+00	6. 760E-03
3. 500E-01	4. 500E-01	1. 070E+00	1. 128E+00	8. 000E-02	4. 000E+00	5. 760E+00	5. 720E-03
4. 500E-01	5. 500E-01	1. 097E+00	1. 181E+00	1. 200E-01	4. 000E+00	5. 760E+00	5. 456E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 076E+00	1. 229E+00	2. 000E-02	6. 000E+00	5. 760E+00	7. 970E-03
2. 500E-01	3. 500E-01	1. 058E+00	1. 226E+00	5. 000E-02	6. 000E+00	5. 760E+00	6. 750E-03
3. 500E-01	4. 500E-01	1. 075E+00	1. 128E+00	8. 000E-02	6. 000E+00	5. 760E+00	5. 709E-03
4. 500E-01	5. 500E-01	1. 100E+00	1. 181E+00	1. 200E-01	6. 000E+00	5. 760E+00	5. 447E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 073E+00	1. 229E+00	2. 000E-02	8. 000E+00	5. 760E+00	7. 979E-03
2. 500E-01	3. 500E-01	1. 055E+00	1. 226E+00	5. 000E-02	8. 000E+00	5. 760E+00	6. 759E-03
3. 500E-01	4. 500E-01	1. 071E+00	1. 128E+00	8. 000E-02	8. 000E+00	5. 760E+00	5. 719E-03
4. 500E-01	5. 500E-01	1. 097E+00	1. 181E+00	1. 200E-01	8. 000E+00	5. 760E+00	5. 455E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 077E+00	1. 229E+00	2. 000E-02	1. 000E+01	5. 760E+00	7. 966E-03
2. 500E-01	3. 500E-01	1. 059E+00	1. 226E+00	5. 000E-02	1. 000E+01	5. 760E+00	6. 748E-03
3. 500E-01	4. 500E-01	1. 075E+00	1. 128E+00	8. 000E-02	1. 000E+01	5. 760E+00	5. 708E-03
4. 500E-01	5. 500E-01	1. 101E+00	1. 181E+00	1. 200E-01	1. 000E+01	5. 760E+00	5. 446E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 080E+00	1. 229E+00	2. 000E-02	2. 000E+01	5. 760E+00	7. 956E-03
2. 500E-01	3. 500E-01	1. 060E+00	1. 226E+00	5. 000E-02	2. 000E+01	5. 760E+00	6. 744E-03
3. 500E-01	4. 500E-01	1. 076E+00	1. 128E+00	8. 000E-02	2. 000E+01	5. 760E+00	5. 705E-03
4. 500E-01	5. 500E-01	1. 102E+00	1. 181E+00	1. 200E-01	2. 000E+01	5. 760E+00	5. 443E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 096E+00	1. 229E+00	2. 000E-02	1. 000E+02	5. 760E+00	7. 897E-03
2. 500E-01	3. 500E-01	1. 069E+00	1. 226E+00	5. 000E-02	1. 000E+02	5. 760E+00	6. 716E-03
3. 500E-01	4. 500E-01	1. 085E+00	1. 128E+00	8. 000E-02	1. 000E+02	5. 760E+00	5. 682E-03
4. 500E-01	5. 500E-01	1. 110E+00	1. 181E+00	1. 200E-01	1. 000E+02	5. 760E+00	5. 422E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 111E+00	2. 459E+00	4. 000E-02	1. 000E+00	5. 760E+00	1. 423E-02
2. 500E-01	3. 500E-01	1. 021E+00	2. 451E+00	1. 000E-01	1. 000E+00	5. 760E+00	1. 013E-02
3. 500E-01	4. 500E-01	1. 082E+00	2. 257E+00	1. 600E-01	1. 000E+00	5. 760E+00	9. 549E-03
4. 500E-01	5. 500E-01	1. 055E+00	2. 362E+00	2. 400E-01	1. 000E+00	5. 760E+00	9. 005E-03

ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1./SIN	SIGMA
LOWER	UPPER						
1. 750E-01	2. 250E-01	1. 153E+00	2. 459E+00	4. 000E-02	2. 000E+00	5. 760E+00	1. 397E-02
2. 500E-01	3. 500E-01	1. 112E+00	2. 451E+00	1. 000E-01	2. 000E+00	5. 760E+00	1. 156E-02
3. 500E-01	4. 500E-01	1. 159E+00	2. 257E+00	1. 600E-01	2. 000E+00	5. 760E+00	9. 277E-03
4. 500E-01	5. 500E-01	1. 152E+00	2. 362E+00	2. 400E-01	2. 000E+00	5. 760E+00	8. 664E-03
ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1./SIN	SIGMA
LOWER	UPPER						
1. 750E-01	2. 250E-01	1. 155E+00	2. 459E+00	4. 000E-02	4. 000E+00	5. 760E+00	1. 396E-02
2. 500E-01	3. 500E-01	1. 126E+00	2. 451E+00	1. 000E-01	4. 000E+00	5. 760E+00	1. 149E-02
3. 500E-01	4. 500E-01	1. 164E+00	2. 257E+00	1. 600E-01	4. 000E+00	5. 760E+00	9. 254E-03
4. 500E-01	5. 500E-01	1. 222E+00	2. 362E+00	2. 400E-01	4. 000E+00	5. 760E+00	9. 083E-03
ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1./SIN	SIGMA
LOWER	UPPER						
1. 750E-01	2. 250E-01	1. 156E+00	2. 459E+00	4. 000E-02	6. 000E+00	5. 760E+00	1. 396E-02
2. 500E-01	3. 500E-01	1. 125E+00	2. 451E+00	1. 000E-01	6. 000E+00	5. 760E+00	1. 150E-02
3. 500E-01	4. 500E-01	1. 163E+00	2. 257E+00	1. 600E-01	6. 000E+00	5. 760E+00	9. 258E-03
4. 500E-01	5. 500E-01	1. 223E+00	2. 362E+00	2. 400E-01	6. 000E+00	5. 760E+00	9. 078E-03
ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1./SIN	SIGMA
LOWER	UPPER						
1. 750E-01	2. 250E-01	1. 157E+00	2. 459E+00	4. 000E-02	8. 000E+00	5. 760E+00	1. 395E-02
2. 500E-01	3. 500E-01	1. 127E+00	2. 451E+00	1. 000E-01	8. 000E+00	5. 760E+00	1. 149E-02
3. 500E-01	4. 500E-01	1. 165E+00	2. 257E+00	1. 600E-01	8. 000E+00	5. 760E+00	9. 252E-03
4. 500E-01	5. 500E-01	1. 223E+00	2. 362E+00	2. 400E-01	8. 000E+00	5. 760E+00	9. 080E-03
ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1./SIN	SIGMA
LOWER	UPPER						
1. 750E-01	2. 250E-01	1. 158E+00	2. 459E+00	4. 000E-02	1. 000E+01	5. 760E+00	1. 394E-02
2. 500E-01	3. 500E-01	1. 127E+00	2. 451E+00	1. 000E-01	1. 000E+01	5. 760E+00	1. 149E-02
3. 500E-01	4. 500E-01	1. 165E+00	2. 257E+00	1. 600E-01	1. 000E+01	5. 760E+00	9. 253E-03
4. 500E-01	5. 500E-01	1. 223E+00	2. 362E+00	2. 400E-01	1. 000E+01	5. 760E+00	9. 080E-03
ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1./SIN	SIGMA
LOWER	UPPER						
1. 750E-01	2. 250E-01	1. 163E+00	2. 459E+00	4. 000E-02	2. 000E+01	5. 760E+00	1. 392E-02
2. 500E-01	3. 500E-01	1. 129E+00	2. 451E+00	1. 000E-01	2. 000E+01	5. 760E+00	1. 148E-02
3. 500E-01	4. 500E-01	1. 166E+00	2. 257E+00	1. 600E-01	2. 000E+01	5. 760E+00	9. 248E-03
4. 500E-01	5. 500E-01	1. 224E+00	2. 362E+00	2. 400E-01	2. 000E+01	5. 760E+00	9. 074E-03
ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1./SIN	SIGMA
LOWER	UPPER						
1. 750E-01	2. 250E-01	1. 191E+00	2. 459E+00	4. 000E-02	1. 000E+02	5. 760E+00	1. 375E-02
2. 500E-01	3. 500E-01	1. 140E+00	2. 451E+00	1. 000E-01	1. 000E+02	5. 760E+00	1. 142E-02
3. 500E-01	4. 500E-01	1. 177E+00	2. 257E+00	1. 600E-01	1. 000E+02	5. 760E+00	9. 204E-03
4. 500E-01	5. 500E-01	1. 237E+00	2. 362E+00	2. 400E-01	1. 000E+02	5. 760E+00	9. 082E-03
ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1./SIN	SIGMA
LOWER	UPPER						
1. 750E-01	2. 250E-01	1. 044E+00	6. 147E+00	1. 000E-01	1. 000E+00	5. 760E+00	3. 487E-02
2. 500E-01	3. 500E-01	1. 031E+00	6. 128E+00	2. 500E-01	1. 000E+00	5. 760E+00	4. 302E-02
3. 500E-01	4. 500E-01	1. 036E+00	5. 642E+00	4. 000E-01	1. 000E+00	5. 760E+00	2. 855E-02
4. 500E-01	5. 500E-01	1. 069E+00	5. 906E+00	6. 000E-01	1. 000E+00	5. 760E+00	3. 332E-02
ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1./SIN	SIGMA
LOWER	UPPER						
1. 750E-01	2. 250E-01	1. 733E+00	6. 147E+00	1. 000E-01	2. 000E+00	5. 760E+00	3. 314E-02
2. 500E-01	3. 500E-01	1. 361E+00	6. 128E+00	2. 500E-01	2. 000E+00	5. 760E+00	3. 828E-02
3. 500E-01	4. 500E-01	1. 189E+00	5. 642E+00	4. 000E-01	2. 000E+00	5. 760E+00	3. 021E-02
4. 500E-01	5. 500E-01	1. 215E+00	5. 906E+00	6. 000E-01	2. 000E+00	5. 760E+00	3. 504E-02
ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1./SIN	SIGMA
LOWER	UPPER						
1. 750E-01	2. 250E-01	1. 733E+00	6. 147E+00	1. 000E-01	2. 000E+00	5. 760E+00	3. 314E-02
2. 500E-01	3. 500E-01	1. 361E+00	6. 128E+00	2. 500E-01	2. 000E+00	5. 760E+00	3. 828E-02
3. 500E-01	4. 500E-01	1. 189E+00	5. 642E+00	4. 000E-01	2. 000E+00	5. 760E+00	3. 021E-02
4. 500E-01	5. 500E-01	1. 215E+00	5. 906E+00	6. 000E-01	2. 000E+00	5. 760E+00	3. 504E-02

1. 750E-01	2. 250E-01	2. 086E+00	6. 147E+00	1. 000E-01	4. 000E+00	5. 760E+00	3. 073E-02
2. 500E-01	3. 500E-01	1. 961E+00	6. 128E+00	2. 500E-01	4. 000E+00	5. 760E+00	3. 264E-02
3. 500E-01	4. 500E-01	1. 771E+00	5. 642E+00	4. 000E-01	4. 000E+00	5. 760E+00	2. 589E-02
4. 500E-01	5. 500E-01	1. 702E+00	5. 906E+00	6. 000E-01	4. 000E+00	5. 760E+00	2. 985E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	2. 091E+00	6. 147E+00	1. 900E-01	6. 000E+00	5. 760E+00	3. 069E-02
2. 500E-01	3. 500E-01	1. 961E+00	6. 128E+00	2. 500E-01	6. 000E+00	5. 760E+00	3. 334E-02
3. 500E-01	4. 500E-01	2. 098E+00	5. 642E+00	4. 000E-01	6. 000E+00	5. 760E+00	2. 412E-02
4. 500E-01	5. 500E-01	2. 466E+00	5. 906E+00	6. 000E-01	6. 000E+00	5. 760E+00	2. 749E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	2. 096E+00	6. 147E+00	1. 000E-01	8. 000E+00	5. 760E+00	3. 065E-02
2. 500E-01	3. 500E-01	1. 963E+00	6. 128E+00	2. 500E-01	8. 000E+00	5. 760E+00	3. 333E-02
3. 500E-01	4. 500E-01	2. 100E+00	5. 642E+00	4. 000E-01	8. 000E+00	5. 760E+00	2. 410E-02
4. 500E-01	5. 500E-01	2. 765E+00	5. 906E+00	6. 000E-01	8. 000E+00	5. 760E+00	2. 639E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	2. 102E+00	6. 147E+00	1. 000E-01	1. 000E+01	5. 760E+00	3. 061E-02
2. 500E-01	3. 500E-01	1. 964E+00	6. 128E+00	2. 500E-01	1. 000E+01	5. 760E+00	3. 332E-02
3. 500E-01	4. 500E-01	2. 101E+00	5. 642E+00	4. 000E-01	1. 000E+01	5. 760E+00	2. 410E-02
4. 500E-01	5. 500E-01	2. 768E+00	5. 906E+00	6. 000E-01	1. 000E+01	5. 760E+00	2. 638E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	2. 132E+00	6. 147E+00	1. 000E-01	2. 000E+01	5. 760E+00	3. 039E-02
2. 500E-01	3. 500E-01	1. 972E+00	6. 128E+00	2. 500E-01	2. 000E+01	5. 760E+00	3. 325E-02
3. 500E-01	4. 500E-01	2. 105E+00	5. 642E+00	4. 000E-01	2. 000E+01	5. 760E+00	2. 408E-02
4. 500E-01	5. 500E-01	2. 772E+00	5. 906E+00	6. 000E-01	2. 000E+01	5. 760E+00	2. 636E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	2. 301E+00	6. 147E+00	1. 000E-01	1. 000E+02	5. 760E+00	3. 209E-02
2. 500E-01	3. 500E-01	2. 036E+00	6. 128E+00	2. 500E-01	1. 000E+02	5. 760E+00	3. 273E-02
3. 500E-01	4. 500E-01	2. 153E+00	5. 642E+00	4. 000E-01	1. 000E+02	5. 760E+00	2. 381E-02
4. 500E-01	5. 500E-01	2. 821E+00	5. 906E+00	6. 000E-01	1. 000E+02	5. 760E+00	2. 613E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	2. 796E+00	1. 229E+01	2. 000E-01	1. 000E+00	5. 760E+00	3. 325E-01
2. 500E-01	3. 500E-01	1. 115E+00	1. 226E+01	5. 000E-01	1. 000E+00	5. 760E+00	4. 660E-01
3. 500E-01	4. 500E-01	9. 044E-01	1. 128E+01	8. 000E-01	1. 000E+00	5. 760E+00	3. 016E-01
4. 500E-01	5. 500E-01	8. 451E-01	1. 181E+01	1. 200E+00	1. 000E+00	5. 760E+00	4. 214E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	5. 252E+00	1. 229E+01	2. 000E-01	2. 000E+00	5. 760E+00	3. 048E-01
2. 500E-01	3. 500E-01	1. 268E+00	1. 226E+01	5. 000E-01	2. 000E+00	5. 760E+00	4. 371E-01
3. 500E-01	4. 500E-01	1. 265E+00	1. 128E+01	8. 000E-01	2. 000E+00	5. 760E+00	3. 112E-01
4. 500E-01	5. 500E-01	8. 774E-01	1. 181E+01	1. 200E+00	2. 000E+00	5. 760E+00	4. 560E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	4. 095E+01	1. 229E+01	2. 000E-01	4. 000E+00	5. 760E+00	1. 164E-01
2. 500E-01	3. 500E-01	6. 528E+00	1. 226E+01	5. 000E-01	4. 000E+00	5. 760E+00	3. 018E-01
3. 500E-01	4. 500E-01	2. 367E+00	1. 128E+01	8. 000E-01	4. 000E+00	5. 760E+00	2. 797E-01
4. 500E-01	5. 500E-01	1. 537E+00	1. 181E+01	1. 200E+00	4. 000E+00	5. 760E+00	4. 484E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	4. 146E+01	1. 229E+01	2. 000E-01	6. 000E+00	5. 760E+00	1. 157E-01
2. 500E-01	3. 500E-01	3. 784E+01	1. 226E+01	5. 000E-01	6. 000E+00	5. 760E+00	1. 274E-01

3.500E-01	4.500E-01	8.711E+00	1.128E+01	8.000E-01	6.000E+00	5.760E+00	1.643E-01
4.500E-01	5.500E-01	4.533E+00	1.181E+01	1.200E+00	6.000E+00	5.760E+00	2.878E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.750E-01	2.250E-01	4.166E+01	1.229E+01	2.000E-01	8.000E+00	5.760E+00	1.154E-01
2.500E-01	3.500E-01	4.255E+01	1.226E+01	5.000E-01	8.000E+00	5.760E+00	1.241E-01
3.500E-01	4.500E-01	2.444E+01	1.128E+01	8.000E-01	8.000E+00	5.760E+00	1.045E-01
4.500E-01	5.500E-01	1.096E+01	1.181E+01	1.200E+00	8.000E+00	5.760E+00	1.952E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.750E-01	2.250E-01	4.179E+01	1.229E+01	2.000E-01	1.000E+01	5.760E+00	1.153E-01
2.500E-01	3.500E-01	4.258E+01	1.226E+01	5.000E-01	1.000E+01	5.760E+00	1.240E-01
3.500E-01	4.500E-01	3.394E+01	1.128E+01	8.000E-01	1.000E+01	5.760E+00	8.872E-02
4.500E-01	5.500E-01	2.687E+01	1.181E+01	1.200E+00	1.000E+01	5.760E+00	1.336E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.750E-01	2.250E-01	4.254E+01	1.229E+01	2.000E-01	2.000E+01	5.760E+00	1.142E-01
2.500E-01	3.500E-01	4.286E+01	1.226E+01	5.000E-01	2.000E+01	5.760E+00	1.236E-01
3.500E-01	4.500E-01	3.410E+01	1.128E+01	8.000E-01	2.000E+01	5.760E+00	8.852E-02
4.500E-01	5.500E-01	6.070E+01	1.181E+01	1.200E+00	2.000E+01	5.760E+00	8.992E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.750E-01	2.250E-01	4.786E+01	1.229E+01	2.000E-01	1.000E+02	5.760E+00	1.077E-01
2.500E-01	3.500E-01	4.458E+01	1.226E+01	5.000E-01	1.000E+02	5.760E+00	1.229E-01
3.500E-01	4.500E-01	3.517E+01	1.128E+01	8.000E-01	1.000E+02	5.760E+00	8.716E-02
4.500E-01	5.500E-01	6.180E+01	1.181E+01	1.200E+00	1.000E+02	5.760E+00	8.912E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.750E-01	2.250E-01	.000E+00	3.073E+01	5.000E-01	1.000E+00	5.760E+00	1.000E+00
2.500E-01	3.500E-01	.000E+00	3.064E+01	1.250E+00	1.000E+00	5.760E+00	1.000E+00
3.500E-01	4.500E-01	.000E+00	2.821E+01	2.000E+00	1.000E+00	5.760E+00	1.000E+00
4.500E-01	5.500E-01	.000E+00	2.953E+01	3.000E+00	1.000E+00	5.760E+00	1.000E+00
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.750E-01	2.250E-01	.000E+00	3.073E+01	5.000E-01	2.000E+00	5.760E+00	1.000E+00
2.500E-01	3.500E-01	.000E+00	3.064E+01	1.250E+00	2.000E+00	5.760E+00	1.000E+00
3.500E-01	4.500E-01	.000E+00	2.821E+01	2.000E+00	2.000E+00	5.760E+00	1.000E+00
4.500E-01	5.500E-01	.000E+00	2.953E+01	3.000E+00	2.000E+00	5.760E+00	1.000E+00
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.750E-01	2.250E-01	.000E+00	3.073E+01	5.000E-01	4.000E+00	5.760E+00	1.000E+00
2.500E-01	3.500E-01	.000E+00	3.064E+01	1.250E+00	4.000E+00	5.760E+00	1.000E+00
3.500E-01	4.500E-01	.000E+00	2.821E+01	2.000E+00	4.000E+00	5.760E+00	1.000E+00
4.500E-01	5.500E-01	.000E+00	2.953E+01	3.000E+00	4.000E+00	5.760E+00	1.000E+00
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.750E-01	2.250E-01	.000E+00	3.073E+01	5.000E-01	6.000E+00	5.760E+00	1.000E+00
2.500E-01	3.500E-01	.000E+00	3.064E+01	1.250E+00	6.000E+00	5.760E+00	1.000E+00
3.500E-01	4.500E-01	.000E+00	2.821E+01	2.000E+00	6.000E+00	5.760E+00	1.000E+00
4.500E-01	5.500E-01	.000E+00	2.953E+01	3.000E+00	6.000E+00	5.760E+00	1.000E+00
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.750E-01	2.250E-01	2.834E+06	3.073E+01	5.000E-01	8.000E+00	5.760E+00	1.000E+00
2.500E-01	3.500E-01	.000E+00	3.064E+01	1.250E+00	8.000E+00	5.760E+00	1.000E+00
3.500E-01	4.500E-01	.000E+00	2.821E+01	2.000E+00	8.000E+00	5.760E+00	1.000E+00
4.500E-01	5.500E-01	.000E+00	2.953E+01	3.000E+00	8.000E+00	5.760E+00	1.000E+00

ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1./SIN	SIGMA
LOWER	UPPER						
1.750E-01	2.250E-01	2.834E+06	3.073E+01	5.000E-01	1.000E+01	5.760E+00	1.000E+00
2.500E-01	3.500E-01	.000E+00	3.064E+01	1.250E+00	1.000E+01	5.760E+00	1.000E+00
3.500E-01	4.500E-01	.000E+00	2.821E+01	2.000E+00	1.000E+01	5.760E+00	1.000E+00
4.500E-01	5.500E-01	.000E+00	2.953E+01	3.000E+00	1.000E+01	5.760E+00	1.000E+00

ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1./SIN	SIGMA
LOWER	UPPER						
1.750E-01	2.250E-01	2.834E+06	3.073E+01	5.000E-01	2.000E+01	5.760E+00	1.000E+00
2.500E-01	3.500E-01	.000E+00	3.064E+01	1.250E+00	2.000E+01	5.760E+00	1.000E+00
3.500E-01	4.500E-01	.000E+00	2.821E+01	2.000E+00	2.000E+01	5.760E+00	1.000E+00
4.500E-01	5.500E-01	.000E+00	2.953E+01	3.000E+00	2.000E+01	5.760E+00	1.000E+00

ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1./SIN	SIGMA
LOWER	UPPER						
.000E+00	.000E+00	.000E+00	.000E+00	5.000E-01	1.000E+02	5.760E+00	1.000E+00
2.500E-01	3.500E-01	.000E+00	3.064E+01	1.250E+00	1.000E+02	5.760E+00	1.000E+00
3.500E-01	4.500E-01	1.275E+06	2.821E+01	2.000E+00	1.000E+02	5.760E+00	1.000E+00
4.500E-01	5.500E-01	1.621E+07	2.953E+01	3.000E+00	1.000E+02	5.760E+00	7.649E-01

表A-3 EGS 4により求めた点等方線源の再生係数

①		②	③	④	⑤	⑥	⑦
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.069E+00	9.697E-01	2.000E-03	1.000E+00	5.758E+00	1.083E-01
9.000E-02	1.100E-01	1.966E+00	1.401E+00	4.000E-03	1.000E+00	5.758E+00	1.189E-01
1.250E-01	1.750E-01	1.177E+00	1.254E+00	1.000E-02	1.000E+00	5.758E+00	1.372E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.017E+00	2.620E-01	2.000E-03	1.000E+00	1.556E+00	1.069E-02
9.000E-02	1.100E-01	1.349E+00	3.785E-01	4.000E-03	1.000E+00	1.556E+00	1.186E-02
1.250E-01	1.750E-01	1.135E+00	3.387E-01	1.000E-02	1.000E+00	1.556E+00	2.674E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.031E+00	1.944E-01	2.000E-03	1.000E+00	1.154E+00	6.547E-03
9.000E-02	1.100E-01	1.292E+00	2.809E-01	4.000E-03	1.000E+00	1.154E+00	8.258E-03
1.250E-01	1.750E-01	1.119E+00	2.514E-01	1.000E-02	1.000E+00	1.154E+00	1.945E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.023E+00	1.684E-01	2.000E-03	1.000E+00	1.000E+00	5.224E-03
9.000E-02	1.100E-01	1.282E+00	2.433E-01	4.000E-03	1.000E+00	1.000E+00	6.555E-03
1.250E-01	1.750E-01	1.108E+00	2.177E-01	1.000E-02	1.000E+00	1.000E+00	1.715E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.038E+00	9.697E-01	2.000E-03	2.000E+00	5.758E+00	7.771E-02
9.000E-02	1.100E-01	1.850E+00	1.401E+00	4.000E-03	2.000E+00	5.758E+00	9.145E-02
1.250E-01	1.750E-01	1.241E+00	1.254E+00	1.000E-02	2.000E+00	5.758E+00	1.065E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.020E+00	2.620E-01	2.000E-03	2.000E+00	1.556E+00	7.546E-03
9.000E-02	1.100E-01	1.355E+00	3.785E-01	4.000E-03	2.000E+00	1.556E+00	8.372E-03
1.250E-01	1.750E-01	1.140E+00	3.387E-01	1.000E-02	2.000E+00	1.556E+00	2.099E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.027E+00	1.944E-01	2.000E-03	2.000E+00	1.154E+00	4.638E-03
9.000E-02	1.100E-01	1.297E+00	2.809E-01	4.000E-03	2.000E+00	1.154E+00	5.828E-03
1.250E-01	1.750E-01	1.118E+00	2.514E-01	1.000E-02	2.000E+00	1.154E+00	1.465E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.021E+00	1.684E-01	2.000E-03	2.000E+00	1.000E+00	3.698E-03
9.000E-02	1.100E-01	1.285E+00	2.433E-01	4.000E-03	2.000E+00	1.000E+00	4.628E-03
1.250E-01	1.750E-01	1.111E+00	2.177E-01	1.000E-02	2.000E+00	1.000E+00	1.211E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.056E+00	9.697E-01	2.000E-03	1.000E+01	5.758E+00	3.447E-02
9.000E-02	1.100E-01	1.863E+00	1.401E+00	4.000E-03	1.000E+01	5.758E+00	4.075E-02
1.250E-01	1.750E-01	1.292E+00	1.254E+00	1.000E-02	1.000E+01	5.758E+00	5.653E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.030E+00	2.620E-01	2.000E-03	1.000E+01	1.556E+00	3.358E-03
9.000E-02	1.100E-01	1.363E+00	3.785E-01	4.000E-03	1.000E+01	1.556E+00	4.183E-03
1.250E-01	1.750E-01	1.140E+00	3.387E-01	1.000E-02	1.000E+01	1.556E+00	1.100E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.022E+00	1.944E-01	2.000E-03	1.000E+01	1.154E+00	2.079E-03
9.000E-02	1.100E-01	1.303E+00	2.809E-01	4.000E-03	1.000E+01	1.154E+00	2.600E-03

1. 250E-01	1. 750E-01	1. 122E+00	2. 514E-01	1. 000E-02	1. 000E+01	1. 154E+00	6. 802E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4. 500E-02	5. 500E-02	1. 018E+00	1. 684E-01	2. 000E-03	1. 000E+01	1. 000E+00	1. 656E-03
9. 000E-02	1. 100E-01	1. 284E+00	2. 433E-01	4. 000E-03	1. 000E+01	1. 000E+00	2. 071E-03
1. 250E-01	1. 750E-01	1. 116E+00	2. 177E-01	1. 000E-02	1. 000E+01	1. 000E+00	5. 402E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4. 500E-02	5. 500E-02	1. 068E+00	9. 697E-01	2. 000E-03	2. 000E+01	5. 758E+00	2. 423E-02
9. 000E-02	1. 100E-01	1. 877E+00	1. 401E+00	4. 000E-03	2. 000E+01	5. 758E+00	2. 993E-02
1. 250E-01	1. 750E-01	1. 275E+00	1. 254E+00	1. 000E-02	2. 000E+01	5. 758E+00	4. 382E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4. 500E-02	5. 500E-02	1. 036E+00	2. 620E-01	2. 000E-03	2. 000E+01	1. 556E+00	2. 368E-03
9. 000E-02	1. 100E-01	1. 369E+00	3. 785E-01	4. 000E-03	2. 000E+01	1. 556E+00	2. 951E-03
1. 250E-01	1. 750E-01	1. 149E+00	3. 387E-01	1. 000E-02	2. 000E+01	1. 556E+00	7. 779E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4. 500E-02	5. 500E-02	1. 022E+00	1. 944E-01	2. 000E-03	2. 000E+01	1. 154E+00	1. 470E-03
9. 000E-02	1. 100E-01	1. 301E+00	2. 809E-01	4. 000E-03	2. 000E+01	1. 154E+00	3. 171E-03
1. 250E-01	1. 750E-01	1. 122E+00	2. 514E-01	1. 000E-02	2. 000E+01	1. 154E+00	4. 809E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4. 500E-02	5. 500E-02	9. 975E-01	1. 684E-01	2. 000E-03	2. 000E+01	1. 000E+00	1. 656E-03
9. 000E-02	1. 100E-01	1. 260E+00	2. 433E-01	4. 000E-03	2. 000E+01	1. 000E+00	3. 185E-03
1. 250E-01	1. 750E-01	1. 094E+00	2. 177E-01	1. 000E-02	2. 000E+01	1. 000E+00	3. 859E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4. 500E-02	5. 500E-02	1. 108E+00	9. 697E-01	2. 000E-03	1. 000E+02	5. 758E+00	1. 064E-02
9. 000E-02	1. 100E-01	1. 979E+00	1. 401E+00	4. 000E-03	1. 000E+02	5. 758E+00	1. 328E-02
1. 250E-01	1. 750E-01	1. 359E+00	1. 254E+00	1. 000E-02	1. 000E+02	5. 758E+00	2. 267E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4. 500E-02	5. 500E-02	1. 215E+00	2. 620E-01	2. 000E-03	1. 000E+02	1. 556E+00	9. 778E-04
9. 000E-02	1. 100E-01	1. 602E+00	3. 785E-01	4. 000E-03	1. 000E+02	1. 556E+00	3. 120E-03
1. 250E-01	1. 750E-01	1. 353E+00	3. 387E-01	1. 000E-02	1. 000E+02	1. 556E+00	3. 206E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4. 500E-02	5. 500E-02	9. 329E-01	1. 944E-01	2. 000E-03	1. 000E+02	1. 154E+00	9. 365E-04
9. 000E-02	1. 100E-01	1. 198E+00	2. 809E-01	4. 000E-03	1. 000E+02	1. 154E+00	2. 205E-03
1. 250E-01	1. 750E-01	1. 027E+00	2. 514E-01	1. 000E-02	1. 000E+02	1. 154E+00	2. 248E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4. 500E-02	5. 500E-02	7. 680E-01	1. 684E-01	2. 000E-03	1. 000E+02	1. 000E+00	8. 441E-04
9. 000E-02	1. 100E-01	9. 738E-01	2. 433E-01	4. 000E-03	1. 000E+02	1. 000E+00	1. 934E-03
1. 250E-01	1. 750E-01	8. 401E-01	2. 177E-01	1. 000E-02	1. 000E+02	1. 000E+00	1. 969E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4. 500E-02	5. 500E-02	1. 177E+00	1. 939E+00	4. 000E-03	1. 000E+00	5. 758E+00	1. 098E-01
9. 000E-02	1. 100E-01	3. 653E+00	2. 802E+00	8. 000E-03	1. 000E+00	5. 758E+00	1. 758E-01
1. 250E-01	1. 750E-01	1. 479E+00	2. 508E+00	2. 000E-02	1. 000E+00	5. 758E+00	2. 185E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4. 500E-02	5. 500E-02	1. 031E+00	5. 239E-01	4. 000E-03	1. 000E+00	1. 556E+00	1. 210E-02
9. 000E-02	1. 100E-01	1. 636E+00	7. 570E-01	8. 000E-03	1. 000E+00	1. 556E+00	1. 302E-02
1. 250E-01	1. 750E-01	1. 228E+00	6. 774E-01	2. 000E-02	1. 000E+00	1. 556E+00	3. 497E-02

ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.026E+00	3.888E-01	4.000E-03	1.000E+00	1.154E+00	7.232E-03
9.000E-02	1.100E-01	1.521E+00	5.618E-01	8.000E-03	1.000E+00	1.154E+00	7.814E-03
1.250E-01	1.750E-01	1.173E+00	5.027E-01	2.000E-02	1.000E+00	1.154E+00	1.799E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.027E+00	3.368E-01	4.000E-03	1.000E+00	1.000E+00	5.672E-03
9.000E-02	1.100E-01	1.473E+00	4.866E-01	8.000E-03	1.000E+00	1.000E+00	6.905E-03
1.250E-01	1.750E-01	1.161E+00	4.355E-01	2.000E-02	1.000E+00	1.000E+00	1.388E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.095E+00	1.939E+00	4.000E-03	2.000E+00	5.758E+00	1.093E-01
9.000E-02	1.100E-01	3.975E+00	2.802E+00	8.000E-03	2.000E+00	5.758E+00	1.192E-01
1.250E-01	1.750E-01	1.620E+00	2.508E+00	2.000E-02	2.000E+00	5.758E+00	1.655E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.037E+00	5.239E-01	4.000E-03	2.000E+00	1.556E+00	8.532E-03
9.000E-02	1.100E-01	1.631E+00	7.570E-01	8.000E-03	2.000E+00	1.556E+00	1.033E-02
1.250E-01	1.750E-01	1.215E+00	6.774E-01	2.000E-02	2.000E+00	1.556E+00	2.675E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.032E+00	3.888E-01	4.000E-03	2.000E+00	1.154E+00	5.099E-03
9.000E-02	1.100E-01	1.516E+00	5.618E-01	8.000E-03	2.000E+00	1.154E+00	5.536E-03
1.250E-01	1.750E-01	1.174E+00	5.027E-01	2.000E-02	2.000E+00	1.154E+00	1.620E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.027E+00	3.368E-01	4.000E-03	2.000E+00	1.000E+00	4.012E-03
9.000E-02	1.100E-01	1.477E+00	4.866E-01	8.000E-03	2.000E+00	1.000E+00	4.876E-03
1.250E-01	1.750E-01	1.159E+00	4.355E-01	2.000E-02	2.000E+00	1.000E+00	1.271E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.119E+00	1.939E+00	4.000E-03	1.000E+01	5.758E+00	5.437E-02
9.000E-02	1.100E-01	4.149E+00	2.802E+00	8.000E-03	1.000E+01	5.758E+00	5.216E-02
1.250E-01	1.750E-01	1.606E+00	2.508E+00	2.000E-02	1.000E+01	5.758E+00	7.686E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.035E+00	5.239E-01	4.000E-03	1.000E+01	1.556E+00	3.820E-03
9.000E-02	1.100E-01	1.629E+00	7.570E-01	8.000E-03	1.000E+01	1.556E+00	4.623E-03
1.250E-01	1.750E-01	1.206E+00	6.774E-01	2.000E-02	1.000E+01	1.556E+00	1.272E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.024E+00	3.888E-01	4.000E-03	1.000E+01	1.154E+00	2.289E-03
9.000E-02	1.100E-01	1.516E+00	5.618E-01	8.000E-03	1.000E+01	1.154E+00	2.774E-03
1.250E-01	1.750E-01	1.172E+00	5.027E-01	2.000E-02	1.000E+01	1.154E+00	7.547E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.025E+00	3.368E-01	4.000E-03	1.000E+01	1.000E+00	1.796E-03
9.000E-02	1.100E-01	1.467E+00	4.866E-01	8.000E-03	1.000E+01	1.000E+00	2.466E-03
1.250E-01	1.750E-01	1.161E+00	4.355E-01	2.000E-02	1.000E+01	1.000E+00	5.907E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.124E+00	1.939E+00	4.000E-03	2.000E+01	5.758E+00	3.837E-02
9.000E-02	1.100E-01	4.136E+00	2.802E+00	8.000E-03	2.000E+01	5.758E+00	3.783E-02
1.250E-01	1.750E-01	1.669E+00	2.508E+00	2.000E-02	2.000E+01	5.758E+00	5.330E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		



LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.042E+00	5.239E-01	4.000E-03	2.000E+01	1.556E+00	2.691E-03
9.000E-02	1.100E-01	1.642E+00	7.570E-01	8.000E-03	2.000E+01	1.556E+00	3.256E-03
1.250E-01	1.750E-01	1.215E+00	6.774E-01	2.000E-02	2.000E+01	1.556E+00	8.961E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.025E+00	3.888E-01	4.000E-03	2.000E+01	1.154E+00	1.618E-03
9.000E-02	1.100E-01	1.512E+00	5.618E-01	8.000E-03	2.000E+01	1.154E+00	1.964E-03
1.250E-01	1.750E-01	1.172E+00	5.027E-01	2.000E-02	2.000E+01	1.154E+00	5.336E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.003E+00	3.368E-01	4.000E-03	2.000E+01	1.000E+00	1.797E-03
9.000E-02	1.100E-01	1.443E+00	4.866E-01	8.000E-03	2.000E+01	1.000E+00	3.458E-03
1.250E-01	1.750E-01	1.139E+00	4.355E-01	2.000E-02	2.000E+01	1.000E+00	4.216E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.185E+00	1.939E+00	4.000E-03	1.000E+02	5.758E+00	1.671E-02
9.000E-02	1.100E-01	4.455E+00	2.802E+00	8.000E-03	1.000E+02	5.758E+00	1.784E-02
1.250E-01	1.750E-01	1.818E+00	2.508E+00	2.000E-02	1.000E+02	5.758E+00	3.368E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.261E+00	5.239E-01	4.000E-03	1.000E+02	1.556E+00	1.094E-03
9.000E-02	1.100E-01	1.986E+00	7.570E-01	8.000E-03	1.000E+02	1.556E+00	1.324E-03
1.250E-01	1.750E-01	1.482E+00	6.774E-01	2.000E-02	1.000E+02	1.556E+00	3.628E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	9.394E-01	3.888E-01	4.000E-03	1.000E+02	1.154E+00	1.028E-03
9.000E-02	1.100E-01	1.397E+00	5.618E-01	8.000E-03	1.000E+02	1.154E+00	2.396E-03
1.250E-01	1.750E-01	1.078E+00	5.027E-01	2.000E-02	1.000E+02	1.154E+00	2.488E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	7.582E-01	3.368E-01	4.000E-03	1.000E+02	1.000E+00	9.242E-04
9.000E-02	1.100E-01	1.101E+00	4.866E-01	8.000E-03	1.000E+02	1.000E+00	2.096E-03
1.250E-01	1.750E-01	8.592E-01	4.355E-01	2.000E-02	1.000E+02	1.000E+00	2.171E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.250E-02	1.750E-02	1.761E+00	7.109E+00	1.000E-03	1.000E+00	5.758E+00	1.000E+00
1.750E-02	2.250E-02	8.604E-01	5.515E+00	1.000E-03	1.000E+00	5.758E+00	8.381E-01
2.500E-02	3.500E-02	9.351E-01	5.699E+00	3.000E-03	1.000E+00	5.758E+00	8.245E-01
3.500E-02	4.500E-02	8.000E-01	5.293E+00	6.000E-03	1.000E+00	5.758E+00	7.167E-01
4.500E-02	5.500E-02	1.537E+00	4.848E+00	1.000E-02	1.000E+00	5.758E+00	5.383E-01
5.500E-02	6.500E-02	1.952E+00	5.949E+00	2.000E-02	1.000E+00	5.758E+00	7.476E-01
7.000E-02	9.000E-02	2.834E+00	5.546E+00	4.000E-02	1.000E+00	5.758E+00	4.996E-01
9.000E-02	1.100E-01	1.117E+02	7.005E+00	2.000E-02	1.000E+00	5.758E+00	1.823E-01
1.250E-01	1.750E-01	6.476E+00	6.269E+00	5.000E-02	1.000E+00	5.758E+00	3.895E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.250E-02	1.750E-02	1.024E+00	1.921E+00	1.000E-03	1.000E+00	1.556E+00	1.699E-02
1.750E-02	2.250E-02	1.014E+00	1.490E+00	1.000E-03	1.000E+00	1.556E+00	1.327E-02
2.500E-02	3.500E-02	1.061E+00	1.540E+00	3.000E-03	1.000E+00	1.556E+00	1.306E-02
3.500E-02	4.500E-02	1.047E+00	1.430E+00	6.000E-03	1.000E+00	1.556E+00	2.030E-02
4.500E-02	5.500E-02	1.057E+00	1.310E+00	1.000E-02	1.000E+00	1.556E+00	1.770E-02
5.500E-02	6.500E-02	1.070E+00	1.607E+00	2.000E-02	1.000E+00	1.556E+00	1.946E-02
7.000E-02	9.000E-02	1.104E+00	1.498E+00	4.000E-02	1.000E+00	1.556E+00	2.124E-02
9.000E-02	1.100E-01	2.575E+00	1.893E+00	2.000E-02	1.000E+00	1.556E+00	2.051E-02
1.250E-01	1.750E-01	1.318E+00	1.694E+00	5.000E-02	1.000E+00	1.556E+00	3.812E-02

ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1./SIN	SIGMA
LOWER	UPPER						
1. 250E-02	1. 750E-02	1. 013E+00	1. 425E+00	1. 000E-03	1. 000E+00	1. 154E+00	8. 374E-03
1. 750E-02	2. 250E-02	1. 006E+00	1. 106E+00	1. 000E-03	1. 000E+00	1. 154E+00	6. 970E-03
2. 500E-02	3. 500E-02	1. 029E+00	1. 143E+00	3. 000E-03	1. 000E+00	1. 154E+00	6. 926E-03
3. 500E-02	4. 500E-02	1. 035E+00	1. 061E+00	6. 000E-03	1. 000E+00	1. 154E+00	1. 083E-02
4. 500E-02	5. 500E-02	1. 043E+00	9. 721E-01	1. 000E-02	1. 000E+00	1. 154E+00	9. 600E-03
5. 500E-02	6. 500E-02	1. 040E+00	1. 193E+00	2. 000E-02	1. 000E+00	1. 154E+00	1. 024E-02
7. 000E-02	9. 000E-02	1. 052E+00	1. 112E+00	4. 000E-02	1. 000E+00	1. 154E+00	1. 144E-02
9. 000E-02	1. 100E-01	2. 074E+00	1. 405E+00	2. 000E-02	1. 000E+00	1. 154E+00	2. 409E-02
1. 250E-01	1. 750E-01	1. 264E+00	1. 257E+00	5. 000E-02	1. 000E+00	1. 154E+00	1. 643E-02

ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1./SIN	SIGMA
LOWER	UPPER						
1. 250E-02	1. 750E-02	1. 009E+00	1. 235E+00	1. 000E-03	1. 000E+00	1. 000E+00	6. 109E-03
1. 750E-02	2. 250E-02	1. 016E+00	9. 578E-01	1. 000E-03	1. 000E+00	1. 000E+00	5. 177E-03
2. 500E-02	3. 500E-02	1. 029E+00	9. 897E-01	3. 000E-03	1. 000E+00	1. 000E+00	5. 167E-03
3. 500E-02	4. 500E-02	1. 027E+00	9. 193E-01	6. 000E-03	1. 000E+00	1. 000E+00	8. 156E-03
4. 500E-02	5. 500E-02	1. 030E+00	8. 420E-01	1. 000E-02	1. 000E+00	1. 000E+00	7. 292E-03
5. 500E-02	6. 500E-02	1. 035E+00	1. 033E+00	2. 000E-02	1. 000E+00	1. 000E+00	7. 630E-03
7. 000E-02	9. 000E-02	1. 053E+00	9. 631E-01	4. 000E-02	1. 000E+00	1. 000E+00	9. 982E-03
9. 000E-02	1. 100E-01	1. 920E+00	1. 217E+00	2. 000E-02	1. 000E+00	1. 000E+00	8. 711E-03
1. 250E-01	1. 750E-01	1. 242E+00	1. 089E+00	5. 000E-02	1. 000E+00	1. 000E+00	1. 629E-02

ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1./SIN	SIGMA
LOWER	UPPER						
1. 250E-02	1. 750E-02	8. 806E-01	7. 109E+00	1. 000E-03	2. 000E+00	5. 758E+00	1. 000E+00
1. 750E-02	2. 250E-02	9. 206E-01	5. 515E+00	1. 000E-03	2. 000E+00	5. 758E+00	5. 729E-01
2. 500E-02	3. 500E-02	6. 630E-01	5. 699E+00	3. 000E-03	2. 000E+00	5. 758E+00	6. 924E-01
3. 500E-02	4. 500E-02	5. 306E-01	5. 293E+00	6. 000E-03	2. 000E+00	5. 758E+00	6. 223E-01
4. 500E-02	5. 500E-02	1. 109E+00	4. 848E+00	1. 000E-02	2. 000E+00	5. 758E+00	5. 229E-01
5. 500E-02	6. 500E-02	1. 445E+00	5. 949E+00	2. 000E-02	2. 000E+00	5. 758E+00	6. 572E-01
7. 000E-02	9. 000E-02	1. 708E+00	5. 546E+00	4. 000E-02	2. 000E+00	5. 758E+00	4. 550E-01
9. 000E-02	1. 100E-01	1. 054E+02	7. 005E+00	2. 000E-02	2. 000E+00	5. 758E+00	1. 775E-01
1. 250E-01	1. 750E-01	8. 811E+00	6. 269E+00	5. 000E-02	2. 000E+00	5. 758E+00	3. 330E-01

ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1./SIN	SIGMA
LOWER	UPPER						
1. 250E-02	1. 750E-02	1. 035E+00	1. 921E+00	1. 000E-03	2. 000E+00	1. 556E+00	1. 195E-02
1. 750E-02	2. 250E-02	1. 020E+00	1. 490E+00	1. 000E-03	2. 000E+00	1. 556E+00	9. 359E-03
2. 500E-02	3. 500E-02	1. 059E+00	1. 540E+00	3. 000E-03	2. 000E+00	1. 556E+00	9. 247E-03
3. 500E-02	4. 500E-02	1. 033E+00	1. 430E+00	6. 000E-03	2. 000E+00	1. 556E+00	1. 445E-02
4. 500E-02	5. 500E-02	1. 043E+00	1. 310E+00	1. 000E-02	2. 000E+00	1. 556E+00	1. 260E-02
5. 500E-02	6. 500E-02	1. 061E+00	1. 607E+00	2. 000E-02	2. 000E+00	1. 556E+00	1. 382E-02
7. 000E-02	9. 000E-02	1. 070E+00	1. 498E+00	4. 000E-02	2. 000E+00	1. 556E+00	1. 525E-02
9. 000E-02	1. 100E-01	2. 580E+00	1. 893E+00	2. 000E-02	2. 000E+00	1. 556E+00	1. 449E-02
1. 250E-01	1. 750E-01	1. 311E+00	1. 694E+00	5. 000E-02	2. 000E+00	1. 556E+00	2. 703E-02

ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1./SIN	SIGMA
LOWER	UPPER						
1. 250E-02	1. 750E-02	1. 020E+00	1. 425E+00	1. 000E-03	2. 000E+00	1. 154E+00	5. 902E-03
1. 750E-02	2. 250E-02	1. 019E+00	1. 106E+00	1. 000E-03	2. 000E+00	1. 154E+00	4. 897E-03
2. 500E-02	3. 500E-02	1. 039E+00	1. 143E+00	3. 000E-03	2. 000E+00	1. 154E+00	4. 876E-03
3. 500E-02	4. 500E-02	1. 040E+00	1. 061E+00	6. 000E-03	2. 000E+00	1. 154E+00	7. 639E-03
4. 500E-02	5. 500E-02	1. 046E+00	9. 721E-01	1. 000E-02	2. 000E+00	1. 154E+00	6. 780E-03
5. 500E-02	6. 500E-02	1. 047E+00	1. 193E+00	2. 000E-02	2. 000E+00	1. 154E+00	9. 406E-03
7. 000E-02	9. 000E-02	1. 057E+00	1. 112E+00	4. 000E-02	2. 000E+00	1. 154E+00	8. 071E-03
9. 000E-02	1. 100E-01	2. 073E+00	1. 405E+00	2. 000E-02	2. 000E+00	1. 154E+00	1. 742E-02
1. 250E-01	1. 750E-01	1. 257E+00	1. 257E+00	5. 000E-02	2. 000E+00	1. 154E+00	2. 020E-02

ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1./SIN	SIGMA
LOWER	UPPER						

LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	1. 007E+00	1. 235E+00	1. 000E-03	2. 000E+00	1. 000E+00	4. 323E-03
1. 750E-02	2. 250E-02	1. 019E+00	9. 578E-01	1. 000E-03	2. 000E+00	1. 000E+00	6. 177E-03
2. 500E-02	3. 500E-02	1. 029E+00	9. 897E-01	3. 000E-03	2. 000E+00	1. 000E+00	3. 654E-03
3. 500E-02	4. 500E-02	1. 024E+00	9. 193E-01	6. 000E-03	2. 000E+00	1. 000E+00	5. 773E-03
4. 500E-02	5. 500E-02	1. 027E+00	8. 420E-01	1. 000E-02	2. 000E+00	1. 000E+00	5. 165E-03
5. 500E-02	6. 500E-02	1. 040E+00	1. 033E+00	2. 000E-02	2. 000E+00	1. 000E+00	5. 384E-03
7. 000E-02	9. 000E-02	1. 047E+00	9. 631E-01	4. 000E-02	2. 000E+00	1. 000E+00	7. 080E-03
9. 000E-02	1. 100E-01	1. 929E+00	1. 217E+00	2. 000E-02	2. 000E+00	1. 000E+00	6. 146E-03
1. 250E-01	1. 750E-01	1. 233E+00	1. 089E+00	5. 000E-02	2. 000E+00	1. 000E+00	1. 585E-02
ENERGY	BLDUP	M. F. P.		PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	1. 395E+00	7. 109E+00	1. 000E-03	1. 000E+01	5. 758E+00	5. 292E-01
1. 750E-02	2. 250E-02	1. 749E+00	5. 515E+00	1. 000E-03	1. 000E+01	5. 758E+00	1. 859E-01
2. 500E-02	3. 500E-02	1. 749E+00	5. 699E+00	3. 000E-03	1. 000E+01	5. 758E+00	1. 906E-01
3. 500E-02	4. 500E-02	1. 283E+00	5. 293E+00	6. 000E-03	1. 000E+01	5. 758E+00	1. 790E-01
4. 500E-02	5. 500E-02	1. 317E+00	4. 848E+00	1. 000E-02	1. 000E+01	5. 758E+00	2. 146E-01
5. 500E-02	6. 500E-02	2. 503E+00	5. 949E+00	2. 000E-02	1. 000E+01	5. 758E+00	2. 567E-01
7. 000E-02	9. 000E-02	2. 005E+00	5. 546E+00	4. 000E-02	1. 000E+01	5. 758E+00	2. 739E-01
9. 000E-02	1. 100E-01	9. 896E+01	7. 005E+00	2. 000E-02	1. 000E+01	5. 758E+00	8. 736E-02
1. 250E-01	1. 750E-01	8. 284E+00	6. 269E+00	5. 000E-02	1. 000E+01	5. 758E+00	2. 102E-01
ENERGY	BLDUP	M. F. P.		PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	1. 037E+00	1. 921E+00	1. 000E-03	1. 000E+01	1. 556E+00	5. 339E-03
1. 750E-02	2. 250E-02	1. 042E+00	1. 490E+00	1. 000E-03	1. 000E+01	1. 556E+00	4. 140E-03
2. 500E-02	3. 500E-02	1. 052E+00	1. 540E+00	3. 000E-03	1. 000E+01	1. 556E+00	6. 078E-03
3. 500E-02	4. 500E-02	1. 041E+00	1. 430E+00	6. 000E-03	1. 000E+01	1. 556E+00	6. 438E-03
4. 500E-02	5. 500E-02	1. 052E+00	1. 310E+00	1. 000E-02	1. 000E+01	1. 556E+00	5. 612E-03
5. 500E-02	6. 500E-02	1. 058E+00	1. 607E+00	2. 000E-02	1. 000E+01	1. 556E+00	8. 072E-03
7. 000E-02	9. 000E-02	1. 062E+00	1. 498E+00	4. 000E-02	1. 000E+01	1. 556E+00	7. 990E-03
9. 000E-02	1. 100E-01	2. 595E+00	1. 893E+00	2. 000E-02	1. 000E+01	1. 556E+00	6. 463E-03
1. 250E-01	1. 750E-01	1. 320E+00	1. 694E+00	5. 000E-02	1. 000E+01	1. 556E+00	1. 466E-02
ENERGY	BLDUP	M. F. P.		PR long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	1. 017E+00	1. 425E+00	1. 000E-03	1. 000E+01	1. 154E+00	2. 644E-03
1. 750E-02	2. 250E-02	1. 020E+00	1. 106E+00	1. 000E-03	1. 000E+01	1. 154E+00	3. 700E-03
2. 500E-02	3. 500E-02	1. 035E+00	1. 143E+00	3. 000E-03	1. 000E+01	1. 154E+00	3. 542E-03
3. 500E-02	4. 500E-02	1. 032E+00	1. 061E+00	6. 000E-03	1. 000E+01	1. 154E+00	3. 429E-03
4. 500E-02	5. 500E-02	1. 038E+00	9. 721E-01	1. 000E-02	1. 000E+01	1. 154E+00	3. 044E-03
5. 500E-02	6. 500E-02	1. 043E+00	1. 193E+00	2. 000E-02	1. 000E+01	1. 154E+00	4. 216E-03
7. 000E-02	9. 000E-02	1. 051E+00	1. 112E+00	4. 000E-02	1. 000E+01	1. 154E+00	4. 225E-03
9. 000E-02	1. 100E-01	2. 084E+00	1. 405E+00	2. 000E-02	1. 000E+01	1. 154E+00	7. 770E-03
1. 250E-01	1. 750E-01	1. 253E+00	1. 257E+00	5. 000E-02	1. 000E+01	1. 154E+00	1. 064E-02
ENERGY	BLDUP	M. F. P.		PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	1. 008E+00	1. 235E+00	1. 000E-03	1. 000E+01	1. 000E+00	1. 933E-03
1. 750E-02	2. 250E-02	1. 016E+00	9. 578E-01	1. 000E-03	1. 000E+01	1. 000E+00	2. 766E-03
2. 500E-02	3. 500E-02	1. 026E+00	9. 897E-01	3. 000E-03	1. 000E+01	1. 000E+00	2. 653E-03
3. 500E-02	4. 500E-02	1. 024E+00	9. 193E-01	6. 000E-03	1. 000E+01	1. 000E+00	2. 582E-03
4. 500E-02	5. 500E-02	1. 030E+00	8. 420E-01	1. 000E-02	1. 000E+01	1. 000E+00	2. 306E-03
5. 500E-02	6. 500E-02	1. 036E+00	1. 033E+00	2. 000E-02	1. 000E+01	1. 000E+00	3. 146E-03
7. 000E-02	9. 000E-02	1. 045E+00	9. 631E-01	4. 000E-02	1. 000E+01	1. 000E+00	3. 168E-03
9. 000E-02	1. 100E-01	1. 926E+00	1. 217E+00	2. 000E-02	1. 000E+01	1. 000E+00	2. 751E-03
1. 250E-01	1. 750E-01	1. 228E+00	1. 089E+00	5. 000E-02	1. 000E+01	1. 000E+00	7. 960E-03
ENERGY	BLDUP	M. F. P.		PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		

1. 250E-02	1. 750E-02	1. 189E+00	7. 109E+00	1. 000E-03	2. 000E+01	5. 758E+00	4. 053E-01
1. 750E-02	2. 250E-02	1. 761E+00	5. 515E+00	1. 000E-03	2. 000E+01	5. 758E+00	1. 310E-01
2. 500E-02	3. 500E-02	1. 809E+00	5. 699E+00	3. 000E-03	2. 000E+01	5. 758E+00	1. 325E-01
3. 500E-02	4. 500E-02	1. 669E+00	5. 293E+00	6. 000E-03	2. 000E+01	5. 758E+00	1. 110E-01
4. 500E-02	5. 500E-02	1. 341E+00	4. 848E+00	1. 000E-02	2. 000E+01	5. 758E+00	1. 504E-01
5. 500E-02	6. 500E-02	2. 489E+00	5. 949E+00	2. 000E-02	2. 000E+01	5. 758E+00	1. 820E-01
7. 000E-02	9. 000E-02	2. 115E+00	5. 546E+00	4. 000E-02	2. 000E+01	5. 758E+00	1. 886E-01
9. 000E-02	1. 100E-01	1. 011E+02	7. 005E+00	2. 000E-02	2. 000E+01	5. 758E+00	6. 113E-02
1. 250E-01	1. 750E-01	8. 288E+00	6. 269E+00	5. 000E-02	2. 000E+01	5. 758E+00	1. 541E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	I. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	1. 053E+00	1. 921E+00	1. 000E-03	2. 000E+01	1. 556E+00	3. 748E-03
1. 750E-02	2. 250E-02	1. 052E+00	1. 490E+00	1. 000E-03	2. 000E+01	1. 556E+00	2. 913E-03
2. 500E-02	3. 500E-02	1. 064E+00	1. 540E+00	3. 000E-03	2. 000E+01	1. 556E+00	4. 273E-03
3. 500E-02	4. 500E-02	1. 055E+00	1. 430E+00	6. 000E-03	2. 000E+01	1. 556E+00	4. 523E-03
4. 500E-02	5. 500E-02	1. 064E+00	1. 310E+00	1. 000E-02	2. 000E+01	1. 556E+00	3. 946E-03
5. 500E-02	6. 500E-02	1. 075E+00	1. 607E+00	2. 000E-02	2. 000E+01	1. 556E+00	5. 663E-03
7. 000E-02	9. 000E-02	1. 079E+00	1. 498E+00	4. 000E-02	2. 000E+01	1. 556E+00	5. 606E-03
9. 000E-02	1. 100E-01	2. 615E+00	1. 893E+00	2. 000E-02	2. 000E+01	1. 556E+00	4. 552E-03
1. 250E-01	1. 750E-01	1. 343E+00	1. 694E+00	5. 000E-02	2. 000E+01	1. 556E+00	1. 334E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	I. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	1. 018E+00	1. 425E+00	1. 000E-03	2. 000E+01	1. 154E+00	1. 868E-03
1. 750E-02	2. 250E-02	1. 024E+00	1. 106E+00	1. 000E-03	2. 000E+01	1. 154E+00	2. 610E-03
2. 500E-02	3. 500E-02	1. 036E+00	1. 143E+00	3. 000E-03	2. 000E+01	1. 154E+00	2. 504E-03
3. 500E-02	4. 500E-02	1. 032E+00	1. 061E+00	6. 000E-03	2. 000E+01	1. 154E+00	2. 424E-03
4. 500E-02	5. 500E-02	1. 039E+00	9. 721E-01	1. 000E-02	2. 000E+01	1. 154E+00	2. 151E-03
5. 500E-02	6. 500E-02	1. 043E+00	1. 193E+00	2. 000E-02	2. 000E+01	1. 154E+00	2. 980E-03
7. 000E-02	9. 000E-02	1. 052E+00	1. 112E+00	4. 000E-02	2. 000E+01	1. 154E+00	2. 987E-03
9. 000E-02	1. 100E-01	2. 085E+00	1. 405E+00	2. 000E-02	2. 000E+01	1. 154E+00	5. 494E-03
1. 250E-01	1. 750E-01	1. 257E+00	1. 257E+00	5. 000E-02	2. 000E+01	1. 154E+00	7. 513E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	I. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	9. 935E-01	1. 235E+00	1. 000E-03	2. 000E+01	1. 000E+00	2. 324E-03
1. 750E-02	2. 250E-02	1. 001E+00	9. 578E-01	1. 000E-03	2. 000E+01	1. 000E+00	1. 971E-03
2. 500E-02	3. 500E-02	1. 010E+00	9. 897E-01	3. 000E-03	2. 000E+01	1. 000E+00	1. 891E-03
3. 500E-02	4. 500E-02	1. 008E+00	9. 193E-01	6. 000E-03	2. 000E+01	1. 000E+00	1. 840E-03
4. 500E-02	5. 500E-02	1. 014E+00	8. 420E-01	1. 000E-02	2. 000E+01	1. 000E+00	1. 644E-03
5. 500E-02	6. 500E-02	1. 020E+00	1. 033E+00	2. 000E-02	2. 000E+01	1. 000E+00	2. 242E-03
7. 000E-02	9. 000E-02	1. 029E+00	9. 631E-01	4. 000E-02	2. 000E+01	1. 000E+00	2. 258E-03
9. 000E-02	1. 100E-01	1. 901E+00	1. 217E+00	2. 000E-02	2. 000E+01	1. 000E+00	1. 958E-03
1. 250E-01	1. 750E-01	1. 211E+00	1. 089E+00	5. 000E-02	2. 000E+01	1. 000E+00	5. 668E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	I. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	2. 903E+00	7. 109E+00	1. 000E-03	1. 000E+02	5. 758E+00	1. 160E-01
1. 750E-02	2. 250E-02	1. 830E+00	5. 515E+00	1. 000E-03	1. 000E+02	5. 758E+00	5. 746E-02
2. 500E-02	3. 500E-02	1. 981E+00	5. 699E+00	3. 000E-03	1. 000E+02	5. 758E+00	5. 664E-02
3. 500E-02	4. 500E-02	1. 825E+00	5. 293E+00	6. 000E-03	1. 000E+02	5. 758E+00	6. 293E-02
4. 500E-02	5. 500E-02	1. 722E+00	4. 848E+00	1. 000E-02	1. 000E+02	5. 758E+00	5. 935E-02
5. 500E-02	6. 500E-02	2. 404E+00	5. 949E+00	2. 000E-02	1. 000E+02	5. 758E+00	9. 494E-02
7. 000E-02	9. 000E-02	2. 354E+00	5. 546E+00	4. 000E-02	1. 000E+02	5. 758E+00	8. 581E-02
9. 000E-02	1. 100E-01	1. 061E+02	7. 005E+00	2. 000E-02	1. 000E+02	5. 758E+00	2. 729E-02
1. 250E-01	1. 750E-01	9. 165E+00	6. 269E+00	5. 000E-02	1. 000E+02	5. 758E+00	6. 774E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	I. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	1. 594E+00	1. 921E+00	1. 000E-03	1. 000E+02	1. 556E+00	1. 362E-03

1.750E-02	2.250E-02	1.467E+00	1.490E+00	1.000E-03	1.000E+02	1.556E+00	1.864E-03
2.500E-02	3.500E-02	1.487E+00	1.540E+00	3.000E-03	1.000E+02	1.556E+00	1.789E-03
3.500E-02	4.500E-02	1.451E+00	1.430E+00	6.000E-03	1.000E+02	1.556E+00	1.725E-03
4.500E-02	5.500E-02	1.434E+00	1.310E+00	1.000E-02	1.000E+02	1.556E+00	1.520E-03
5.500E-02	6.500E-02	1.511E+00	1.607E+00	2.000E-02	1.000E+02	1.556E+00	2.135E-03
7.000E-02	9.000E-02	1.493E+00	1.498E+00	4.000E-02	1.000E+02	1.556E+00	2.131E-03
9.000E-02	1.100E-01	3.437E+00	1.893E+00	2.000E-02	1.000E+02	1.556E+00	3.613E-03
1.250E-01	1.750E-01	1.870E+00	1.694E+00	5.000E-02	1.000E+02	1.556E+00	5.368E-03

ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.250E-02	1.750E-02	9.647E-01	1.425E+00	1.000E-03	1.000E+02	1.154E+00	1.417E-03
1.750E-02	2.250E-02	9.567E-01	1.106E+00	1.000E-03	1.000E+02	1.154E+00	1.745E-03
2.500E-02	3.500E-02	9.667E-01	1.143E+00	3.000E-03	1.000E+02	1.154E+00	1.159E-03
3.500E-02	4.500E-02	9.599E-01	1.061E+00	6.000E-03	1.000E+02	1.154E+00	1.124E-03
4.500E-02	5.500E-02	9.636E-01	9.721E-01	1.000E-02	1.000E+02	1.154E+00	9.989E-04
5.500E-02	6.500E-02	9.763E-01	1.193E+00	2.000E-02	1.000E+02	1.154E+00	1.378E-03
7.000E-02	9.000E-02	9.801E-01	1.112E+00	4.000E-02	1.000E+02	1.154E+00	1.384E-03
9.000E-02	1.100E-01	1.955E+00	1.405E+00	2.000E-02	1.000E+02	1.154E+00	2.537E-03
1.250E-01	1.750E-01	1.178E+00	1.257E+00	5.000E-02	1.000E+02	1.154E+00	3.470E-03

ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.250E-02	1.750E-02	6.858E-01	1.235E+00	1.000E-03	1.000E+02	1.000E+00	1.251E-03
1.750E-02	2.250E-02	7.107E-01	9.578E-01	1.000E-03	1.000E+02	1.000E+00	1.552E-03
2.500E-02	3.500E-02	7.170E-01	9.897E-01	3.000E-03	1.000E+02	1.000E+00	1.004E-03
3.500E-02	4.500E-02	7.198E-01	9.193E-01	6.000E-03	1.000E+02	1.000E+00	9.740E-04
4.500E-02	5.500E-02	7.302E-01	8.420E-01	1.000E-02	1.000E+02	1.000E+00	8.661E-04
5.500E-02	6.500E-02	7.201E-01	1.033E+00	2.000E-02	1.000E+02	1.000E+00	1.193E-03
7.000E-02	9.000E-02	7.308E-01	9.631E-01	4.000E-02	1.000E+02	1.000E+00	1.198E-03
9.000E-02	1.100E-01	1.391E+00	1.217E+00	2.000E-02	1.000E+02	1.000E+00	2.206E-03
1.250E-01	1.750E-01	8.601E-01	1.089E+00	5.000E-02	1.000E+02	1.000E+00	3.008E-03

ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.250E-02	1.750E-02	.000E+00	1.422E+01	2.000E-03	1.000E+00	5.758E+00	1.000E+00
1.750E-02	2.250E-02	.000E+00	1.103E+01	2.000E-03	1.000E+00	5.758E+00	1.000E+00
2.500E-02	3.500E-02	1.352E+02	1.140E+01	6.000E-03	1.000E+00	5.758E+00	1.000E+00
3.500E-02	4.500E-02	.000E+00	1.059E+01	1.200E-02	1.000E+00	5.758E+00	1.000E+00
4.500E-02	5.500E-02	5.944E+00	9.697E+00	2.000E-02	1.000E+00	5.758E+00	1.000E+00
5.500E-02	6.500E-02	.000E+00	1.190E+01	4.000E-02	1.000E+00	5.758E+00	1.000E+00
7.000E-02	9.000E-02	.000E+00	1.109E+01	8.000E-02	1.000E+00	5.758E+00	1.000E+00
9.000E-02	1.100E-01	3.903E+04	1.401E+01	4.000E-02	1.000E+00	5.758E+00	2.698E-01
1.250E-01	1.750E-01	3.015E+02	1.254E+01	1.000E-01	1.000E+00	5.759E+00	1.000E+00

ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.250E-02	1.750E-02	1.113E+00	3.841E+00	2.000E-03	1.000E+00	1.556E+00	4.258E-02
1.750E-02	2.250E-02	1.091E+00	2.980E+00	2.000E-03	1.000E+00	1.556E+00	2.696E-02
2.500E-02	3.500E-02	1.109E+00	3.079E+00	6.000E-03	1.000E+00	1.556E+00	2.759E-02
3.500E-02	4.500E-02	1.093E+00	2.860E+00	1.200E-02	1.000E+00	1.556E+00	2.481E-02
4.500E-02	5.500E-02	1.130E+00	2.620E+00	2.000E-02	1.000E+00	1.556E+00	3.296E-02
5.500E-02	6.500E-02	1.158E+00	3.214E+00	4.000E-02	1.000E+00	1.556E+00	4.177E-02
7.000E-02	9.000E-02	1.112E+00	2.996E+00	8.000E-02	1.000E+00	1.556E+00	4.474E-02
9.000E-02	1.100E-01	5.776E+00	3.785E+00	4.000E-02	1.000E+00	1.556E+00	3.149E-02
1.250E-01	1.750E-01	1.470E+00	3.387E+00	1.000E-01	1.000E+00	1.555E+00	4.819E-02

ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.250E-02	1.750E-02	1.009E+00	2.851E+00	2.000E-03	1.000E+00	1.154E+00	1.711E-02
1.750E-02	2.250E-02	1.040E+00	2.212E+00	2.000E-03	1.000E+00	1.154E+00	1.192E-02

2.500E-02	3.500E-02	1.030E+00	2.285E+00	6.000E-03	1.000E+00	1.154E+00	1.226E-02
3.500E-02	4.500E-02	1.044E+00	2.123E+00	1.200E-02	1.000E+00	1.154E+00	1.833E-02
4.500E-02	5.500E-02	1.050E+00	1.944E+00	2.000E-02	1.000E+00	1.154E+00	1.556E-02
5.500E-02	6.500E-02	1.051E+00	2.385E+00	4.000E-02	1.000E+00	1.154E+00	1.848E-02
7.000E-02	9.000E-02	1.068E+00	2.224E+00	8.000E-02	1.000E+00	1.154E+00	1.980E-02
9.000E-02	1.100E-01	3.268E+00	2.809E+00	4.000E-02	1.000E+00	1.154E+00	1.640E-02
1.250E-01	1.750E-01	1.329E+00	2.515E+00	1.000E-01	1.000E+00	1.155E+00	3.199E-02

ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.250E-02	1.750E-02	1.020E+00	2.469E+00	2.000E-03	1.000E+00	1.000E+00	1.126E-02
1.750E-02	2.250E-02	1.032E+00	1.916E+00	2.000E-03	1.000E+00	1.000E+00	8.290E-03
2.500E-02	3.500E-02	1.050E+00	1.979E+00	6.000E-03	1.000E+00	1.000E+00	8.390E-03
3.500E-02	4.500E-02	1.037E+00	1.839E+00	1.200E-02	1.000E+00	1.000E+00	1.285E-02
4.500E-02	5.500E-02	1.060E+00	1.684E+00	2.000E-02	1.000E+00	1.000E+00	1.095E-02
5.500E-02	6.500E-02	1.054E+00	2.066E+00	4.000E-02	1.000E+00	1.000E+00	1.268E-02
7.000E-02	9.000E-02	1.075E+00	1.926E+00	8.000E-02	1.000E+00	1.000E+00	1.370E-02
9.000E-02	1.100E-01	2.793E+00	2.433E+00	4.000E-02	1.000E+00	1.000E+00	1.327E-02
1.250E-01	1.750E-01	1.291E+00	2.177E+00	1.000E-01	1.000E+00	1.000E+00	2.866E-02

ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.250E-02	1.750E-02	.000E+00	1.422E+01	2.000E-03	2.000E+00	5.758E+00	1.000E+00
1.750E-02	2.250E-02	.000E+00	1.103E+01	2.000E-03	2.000E+00	5.758E+00	1.000E+00
2.500E-02	3.500E-02	6.762E+01	1.140E+01	6.000E-03	2.000E+00	5.758E+00	1.000E+00
3.500E-02	4.500E-02	.000E+00	1.059E+01	1.200E-02	2.000E+00	5.758E+00	1.000E+00
4.500E-02	5.500E-02	2.972E+00	9.697E+00	2.000E-02	2.000E+00	5.758E+00	1.000E+00
5.500E-02	6.500E-02	.000E+00	1.190E+01	4.000E-02	2.000E+00	5.758E+00	1.000E+00
7.000E-02	9.000E-02	4.441E+01	1.109E+01	8.000E-02	2.000E+00	5.758E+00	1.000E+00
9.000E-02	1.100E-01	3.825E+04	1.401E+01	4.000E-02	2.000E+00	5.758E+00	2.265E-01
1.250E-01	1.750E-01	3.772E+02	1.254E+01	1.000E-01	2.000E+00	5.759E+00	8.114E-01

ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.250E-02	1.750E-02	1.104E+00	3.841E+00	2.000E-03	2.000E+00	1.556E+00	3.023E-02
1.750E-02	2.250E-02	1.095E+00	2.980E+00	2.000E-03	2.000E+00	1.556E+00	1.902E-02
2.500E-02	3.500E-02	1.090E+00	3.079E+00	6.000E-03	2.000E+00	1.556E+00	1.968E-02
3.500E-02	4.500E-02	1.084E+00	2.860E+00	1.200E-02	2.000E+00	1.556E+00	2.884E-02
4.500E-02	5.500E-02	1.100E+00	2.620E+00	2.000E-02	2.000E+00	1.556E+00	2.362E-02
5.500E-02	6.500E-02	1.134E+00	3.214E+00	4.000E-02	2.000E+00	1.556E+00	2.985E-02
7.000E-02	9.000E-02	1.080E+00	2.996E+00	8.000E-02	2.000E+00	1.556E+00	3.211E-02
9.000E-02	1.100E-01	5.688E+00	3.785E+00	4.000E-02	2.000E+00	1.556E+00	2.481E-02
1.250E-01	1.750E-01	1.496E+00	3.387E+00	1.000E-01	2.000E+00	1.555E+00	3.817E-02

ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.250E-02	1.750E-02	1.032E+00	2.851E+00	2.000E-03	2.000E+00	1.154E+00	1.196E-02
1.750E-02	2.250E-02	1.051E+00	2.212E+00	2.000E-03	2.000E+00	1.154E+00	8.383E-03
2.500E-02	3.500E-02	1.047E+00	2.285E+00	6.000E-03	2.000E+00	1.154E+00	8.596E-03
3.500E-02	4.500E-02	1.053E+00	2.123E+00	1.200E-02	2.000E+00	1.154E+00	1.290E-02
4.500E-02	5.500E-02	1.061E+00	1.944E+00	2.000E-02	2.000E+00	1.154E+00	1.094E-02
5.500E-02	6.500E-02	1.060E+00	2.385E+00	4.000E-02	2.000E+00	1.154E+00	1.302E-02
7.000E-02	9.000E-02	1.085E+00	2.224E+00	8.000E-02	2.000E+00	1.154E+00	1.389E-02
9.000E-02	1.100E-01	3.291E+00	2.809E+00	4.000E-02	2.000E+00	1.154E+00	1.156E-02
1.250E-01	1.750E-01	1.333E+00	2.515E+00	1.000E-01	2.000E+00	1.155E+00	2.444E-02

ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.250E-02	1.750E-02	1.019E+00	2.469E+00	2.000E-03	2.000E+00	1.000E+00	7.966E-03
1.750E-02	2.250E-02	1.022E+00	1.916E+00	2.000E-03	2.000E+00	1.000E+00	5.892E-03
2.500E-02	3.500E-02	1.042E+00	1.979E+00	6.000E-03	2.000E+00	1.000E+00	5.955E-03

3.500E-02	4.500E-02	1.037E+00	1.839E+00	1.200E-02	2.000E+00	1.000E+00	9.087E-03
4.500E-02	5.500E-02	1.049E+00	1.684E+00	2.000E-02	2.000E+00	1.000E+00	7.786E-03
5.500E-02	6.500E-02	1.054E+00	2.066E+00	4.000E-02	2.000E+00	1.000E+00	8.961E-03
7.000E-02	9.000E-02	1.069E+00	1.926E+00	8.000E-02	2.000E+00	1.000E+00	9.716E-03
9.000E-02	1.100E-01	2.792E+00	2.433E+00	4.000E-02	2.000E+00	1.000E+00	9.387E-03
1.250E-01	1.750E-01	1.296E+00	2.177E+00	1.000E-01	2.000E+00	1.000E+00	2.069E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.250E-02	1.750E-02	3.289E+02	1.422E+01	2.000E-03	1.000E+01	5.758E+00	1.000E+00
1.750E-02	2.250E-02	3.151E+01	1.103E+01	2.000E-03	1.000E+01	5.758E+00	6.903E-01
2.500E-02	3.500E-02	3.728E+01	1.140E+01	6.000E-03	1.000E+01	5.758E+00	7.135E-01
3.500E-02	4.500E-02	9.314E+00	1.059E+01	1.200E-02	1.000E+01	5.758E+00	9.372E-01
4.500E-02	5.500E-02	9.658E+00	9.697E+00	2.000E-02	1.000E+01	5.758E+00	6.590E-01
5.500E-02	6.500E-02	2.816E+01	1.190E+01	4.000E-02	1.000E+01	5.758E+00	1.000E+00
7.000E-02	9.000E-02	3.061E+01	1.109E+01	8.000E-02	1.000E+01	5.758E+00	8.201E-01
9.000E-02	1.100E-01	3.880E+04	1.401E+01	4.000E-02	1.000E+01	5.758E+00	1.231E-01
1.250E-01	1.750E-01	4.988E+02	1.254E+01	1.000E-01	1.000E+01	5.759E+00	3.795E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.250E-02	1.750E-02	1.054E+00	3.841E+00	2.000E-03	1.000E+01	1.556E+00	1.383E-02
1.750E-02	2.250E-02	1.076E+00	2.980E+00	2.000E-03	1.000E+01	1.556E+00	8.582E-03
2.500E-02	3.500E-02	1.075E+00	3.079E+00	6.000E-03	1.000E+01	1.556E+00	8.864E-03
3.500E-02	4.500E-02	1.066E+00	2.860E+00	1.200E-02	1.000E+01	1.556E+00	1.301E-02
4.500E-02	5.500E-02	1.081E+00	2.620E+00	2.000E-02	1.000E+01	1.556E+00	1.065E-02
5.500E-02	6.500E-02	1.099E+00	3.214E+00	4.000E-02	1.000E+01	1.556E+00	1.356E-02
7.000E-02	9.000E-02	1.093E+00	2.996E+00	8.000E-02	1.000E+01	1.556E+00	1.600E-02
9.000E-02	1.100E-01	5.818E+00	3.785E+00	4.000E-02	1.000E+01	1.556E+00	1.112E-02
1.250E-01	1.750E-01	1.469E+00	3.387E+00	1.000E-01	1.000E+01	1.555E+00	2.125E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.250E-02	1.750E-02	1.033E+00	2.851E+00	2.000E-03	1.000E+01	1.154E+00	5.350E-03
1.750E-02	2.250E-02	1.044E+00	2.212E+00	2.000E-03	1.000E+01	1.154E+00	3.762E-03
2.500E-02	3.500E-02	1.050E+00	2.285E+00	6.000E-03	1.000E+01	1.154E+00	3.839E-03
3.500E-02	4.500E-02	1.045E+00	2.123E+00	1.200E-02	1.000E+01	1.154E+00	5.792E-03
4.500E-02	5.500E-02	1.059E+00	1.944E+00	2.000E-02	1.000E+01	1.154E+00	4.899E-03
5.500E-02	6.500E-02	1.062E+00	2.385E+00	4.000E-02	1.000E+01	1.154E+00	7.403E-03
7.000E-02	9.000E-02	1.074E+00	2.224E+00	8.000E-02	1.000E+01	1.154E+00	7.288E-03
9.000E-02	1.100E-01	3.313E+00	2.809E+00	4.000E-02	1.000E+01	1.154E+00	5.772E-03
1.250E-01	1.750E-01	1.331E+00	2.515E+00	1.000E-01	1.000E+01	1.155E+00	1.513E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.250E-02	1.750E-02	1.016E+00	2.469E+00	2.000E-03	1.000E+01	1.000E+00	3.568E-03
1.750E-02	2.250E-02	1.024E+00	1.916E+00	2.000E-03	1.000E+01	1.000E+00	2.632E-03
2.500E-02	3.500E-02	1.033E+00	1.979E+00	6.000E-03	1.000E+01	1.000E+00	2.675E-03
3.500E-02	4.500E-02	1.030E+00	1.839E+00	1.200E-02	1.000E+01	1.000E+00	4.078E-03
4.500E-02	5.500E-02	1.041E+00	1.684E+00	2.000E-02	1.000E+01	1.000E+00	3.495E-03
5.500E-02	6.500E-02	1.046E+00	2.066E+00	4.000E-02	1.000E+01	1.000E+00	5.248E-03
7.000E-02	9.000E-02	1.057E+00	1.926E+00	8.000E-02	1.000E+01	1.000E+00	5.100E-03
9.000E-02	1.100E-01	2.773E+00	2.433E+00	4.000E-02	1.000E+01	1.000E+00	4.212E-03
1.250E-01	1.750E-01	1.282E+00	2.177E+00	1.000E-01	1.000E+01	1.000E+00	1.344E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.250E-02	1.750E-02	3.748E+02	1.422E+01	2.000E-03	2.000E+01	5.758E+00	7.983E-01
1.750E-02	2.250E-02	2.494E+01	1.103E+01	2.000E-03	2.000E+01	5.758E+00	5.486E-01
2.500E-02	3.500E-02	4.410E+01	1.140E+01	6.000E-03	2.000E+01	5.758E+00	4.639E-01
3.500E-02	4.500E-02	9.207E+00	1.059E+01	1.200E-02	2.000E+01	5.758E+00	6.665E-01

4.500E-02	5.500E-02	9.984E+00	9.697E+00	2.000E-02	2.000E+01	5.758E+00	5.516E-01
5.500E-02	6.500E-02	4.023E+01	1.190E+01	4.000E-02	2.000E+01	5.758E+00	8.758E-01
7.000E-02	9.000E-02	3.379E+01	1.109E+01	8.000E-02	2.000E+01	5.758E+00	6.578E-01
9.000E-02	1.100E-01	3.795E+04	1.401E+01	4.000E-02	2.000E+01	5.758E+00	8.801E-02
1.250E-01	1.750E-01	5.330E+02	1.254E+01	1.000E-01	2.000E+01	5.759E+00	2.988E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.250E-02	1.750E-02	1.104E+00	3.841E+00	2.000E-03	2.000E+01	1.556E+00	9.559E-03
1.750E-02	2.250E-02	1.104E+00	2.980E+00	2.000E-03	2.000E+01	1.556E+00	5.992E-03
2.500E-02	3.500E-02	1.106E+00	3.079E+00	6.000E-03	2.000E+01	1.556E+00	8.926E-03
3.500E-02	4.500E-02	1.092E+00	2.860E+00	1.200E-02	2.000E+01	1.556E+00	9.088E-03
4.500E-02	5.500E-02	1.111E+00	2.620E+00	2.000E-02	2.000E+01	1.556E+00	7.432E-03
5.500E-02	6.500E-02	1.122E+00	3.214E+00	4.000E-02	2.000E+01	1.556E+00	1.238E-02
7.000E-02	9.000E-02	1.128E+00	2.996E+00	8.000E-02	2.000E+01	1.556E+00	1.114E-02
9.000E-02	1.100E-01	5.904E+00	3.785E+00	4.000E-02	2.000E+01	1.556E+00	7.805E-03
1.250E-01	1.750E-01	1.508E+00	3.387E+00	1.000E-01	2.000E+01	1.555E+00	2.788E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.250E-02	1.750E-02	1.045E+00	2.851E+00	2.000E-03	2.000E+01	1.154E+00	3.761E-03
1.750E-02	2.250E-02	1.047E+00	2.212E+00	2.000E-03	2.000E+01	1.154E+00	5.495E-03
2.500E-02	3.500E-02	1.055E+00	2.285E+00	6.000E-03	2.000E+01	1.154E+00	2.708E-03
3.500E-02	4.500E-02	1.051E+00	2.123E+00	1.200E-02	2.000E+01	1.154E+00	4.085E-03
4.500E-02	5.500E-02	1.062E+00	1.944E+00	2.000E-02	2.000E+01	1.154E+00	3.459E-03
5.500E-02	6.500E-02	1.068E+00	2.385E+00	4.000E-02	2.000E+01	1.154E+00	5.347E-03
7.000E-02	9.000E-02	1.080E+00	2.224E+00	8.000E-02	2.000E+01	1.154E+00	5.139E-03
9.000E-02	1.100E-01	3.326E+00	2.809E+00	4.000E-02	2.000E+01	1.154E+00	4.073E-03
1.250E-01	1.750E-01	1.337E+00	2.515E+00	1.000E-01	2.000E+01	1.155E+00	1.368E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.250E-02	1.750E-02	9.929E-01	2.469E+00	2.000E-03	2.000E+01	1.000E+00	2.553E-03
1.750E-02	2.250E-02	1.005E+00	1.916E+00	2.000E-03	2.000E+01	1.000E+00	1.879E-03
2.500E-02	3.500E-02	1.013E+00	1.979E+00	6.000E-03	2.000E+01	1.000E+00	1.910E-03
3.500E-02	4.500E-02	1.014E+00	1.839E+00	1.200E-02	2.000E+01	1.000E+00	2.905E-03
4.500E-02	5.500E-02	1.026E+00	1.684E+00	2.000E-02	2.000E+01	1.000E+00	2.489E-03
5.500E-02	6.500E-02	1.026E+00	2.066E+00	4.000E-02	2.000E+01	1.000E+00	3.747E-03
7.000E-02	9.000E-02	1.039E+00	1.926E+00	8.000E-02	2.000E+01	1.000E+00	3.636E-03
9.000E-02	1.100E-01	2.732E+00	2.433E+00	4.000E-02	2.000E+01	1.000E+00	3.001E-03
1.250E-01	1.750E-01	1.253E+00	2.177E+00	1.000E-01	2.000E+01	1.000E+00	9.614E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.250E-02	1.750E-02	3.020E+02	1.422E+01	2.000E-03	1.000E+02	5.758E+00	3.977E-01
1.750E-02	2.250E-02	3.166E+01	1.103E+01	2.000E-03	1.000E+02	5.758E+00	2.178E-01
2.500E-02	3.500E-02	3.143E+01	1.140E+01	6.000E-03	1.000E+02	5.758E+00	2.458E-01
3.500E-02	4.500E-02	1.825E+01	1.059E+01	1.200E-02	1.000E+02	5.758E+00	2.551E-01
4.500E-02	5.500E-02	1.179E+01	9.697E+00	2.000E-02	1.000E+02	5.758E+00	2.561E-01
5.500E-02	6.500E-02	4.901E+01	1.190E+01	4.000E-02	1.000E+02	5.758E+00	3.591E-01
7.000E-02	9.000E-02	3.731E+01	1.109E+01	8.000E-02	1.000E+02	5.758E+00	3.031E-01
9.000E-02	1.100E-01	3.942E+04	1.401E+01	4.000E-02	1.000E+02	5.758E+00	4.827E-02
1.250E-01	1.750E-01	5.528E+02	1.254E+01	1.000E-01	1.000E+02	5.759E+00	1.780E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.250E-02	1.750E-02	2.428E+00	3.841E+00	2.000E-03	1.000E+02	1.556E+00	2.883E-03
1.750E-02	2.250E-02	1.986E+00	2.980E+00	2.000E-03	1.000E+02	1.556E+00	3.703E-03
2.500E-02	3.500E-02	2.031E+00	3.079E+00	6.000E-03	1.000E+02	1.556E+00	2.946E-03
3.500E-02	4.500E-02	1.924E+00	2.860E+00	1.200E-02	1.000E+02	1.556E+00	3.062E-03
4.500E-02	5.500E-02	1.854E+00	2.620E+00	2.000E-02	1.000E+02	1.556E+00	2.573E-03



5. 500E-02	6. 500E-02	2. 109E+00	3. 214E+00	4. 000E-02	1. 000E+02	1. 556E+00	4. 037E-03
7. 000E-02	9. 000E-02	2. 033E+00	2. 996E+00	8. 000E-02	1. 000E+02	1. 556E+00	3. 863E-03
9. 000E-02	1. 100E-01	8. 570E+00	3. 785E+00	4. 000E-02	1. 000E+02	1. 556E+00	2. 897E-03
1. 250E-01	1. 750E-01	2. 782E+00	3. 387E+00	1. 000E-01	1. 000E+02	1. 555E+00	1. 027E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	1. 038E+00	2. 851E+00	2. 000E-03	1. 000E+02	1. 154E+00	1. 688E-03
1. 750E-02	2. 250E-02	1. 012E+00	2. 212E+00	2. 000E-03	1. 000E+02	1. 154E+00	2. 499E-03
2. 500E-02	3. 500E-02	1. 022E+00	2. 285E+00	6. 000E-03	1. 000E+02	1. 154E+00	1. 932E-03
3. 500E-02	4. 500E-02	1. 012E+00	2. 123E+00	1. 200E-02	1. 000E+02	1. 154E+00	1. 861E-03
4. 500E-02	5. 500E-02	1. 017E+00	1. 944E+00	2. 000E-02	1. 000E+02	1. 154E+00	1. 581E-03
5. 500E-02	6. 500E-02	1. 039E+00	2. 385E+00	4. 000E-02	1. 000E+02	1. 154E+00	2. 424E-03
7. 000E-02	9. 000E-02	1. 044E+00	2. 224E+00	8. 000E-02	1. 000E+02	1. 154E+00	2. 337E-03
9. 000E-02	1. 100E-01	3. 190E+00	2. 809E+00	4. 000E-02	1. 000E+02	1. 154E+00	1. 860E-03
1. 250E-01	1. 750E-01	1. 300E+00	2. 515E+00	1. 000E-01	1. 000E+02	1. 155E+00	6. 205E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	6. 150E-01	2. 469E+00	2. 000E-03	1. 000E+02	1. 000E+00	1. 450E-03
1. 750E-02	2. 250E-02	6. 581E-01	1. 916E+00	2. 000E-03	1. 000E+02	1. 000E+00	2. 186E-03
2. 500E-02	3. 500E-02	6. 608E-01	1. 979E+00	6. 000E-03	1. 000E+02	1. 000E+00	1. 715E-03
3. 500E-02	4. 500E-02	6. 685E-01	1. 839E+00	1. 200E-02	1. 000E+02	1. 000E+00	1. 600E-03
4. 500E-02	5. 500E-02	6. 853E-01	1. 684E+00	2. 000E-02	1. 000E+02	1. 000E+00	1. 362E-03
5. 500E-02	6. 500E-02	6. 644E-01	2. 066E+00	4. 000E-02	1. 000E+02	1. 000E+00	2. 082E-03
7. 000E-02	9. 000E-02	6. 809E-01	1. 926E+00	8. 000E-02	1. 000E+02	1. 000E+00	2. 009E-03
9. 000E-02	1. 100E-01	1. 889E+00	2. 433E+00	4. 000E-02	1. 000E+02	1. 000E+00	3. 478E-03
1. 250E-01	1. 750E-01	8. 148E-01	2. 177E+00	1. 000E-01	1. 000E+02	1. 000E+00	5. 332E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	. 000E+00	3. 555E+01	5. 000E-03	1. 000E+00	5. 758E+00	1. 000E+00
1. 750E-02	2. 250E-02	. 000E+00	2. 758E+01	5. 000E-03	1. 000E+00	5. 758E+00	1. 000E+00
2. 500E-02	3. 500E-02	. 000E+00	2. 850E+01	1. 500E-02	1. 000E+00	5. 758E+00	1. 000E+00
3. 500E-02	4. 500E-02	. 000E+00	2. 647E+01	3. 000E-02	1. 000E+00	5. 758E+00	1. 000E+00
4. 500E-02	5. 500E-02	. 000E+00	2. 424E+01	5. 000E-02	1. 000E+00	5. 758E+00	1. 000E+00
5. 500E-02	6. 500E-02	. 000E+00	2. 975E+01	1. 000E-01	1. 000E+00	5. 759E+00	1. 000E+00
7. 000E-02	9. 000E-02	. 000E+00	2. 773E+01	2. 000E-01	1. 000E+00	5. 759E+00	1. 000E+00
9. 000E-02	1. 100E-01	4. 461E+12	3. 503E+01	1. 000E-01	1. 000E+00	5. 759E+00	7. 820E-01
1. 250E-01	1. 750E-01	. 000E+00	3. 135E+01	2. 500E-01	1. 000E+00	5. 759E+00	1. 000E+00
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	. 000E+00	9. 603E+00	5. 000E-03	1. 000E+00	1. 556E+00	1. 000E+00
1. 750E-02	2. 250E-02	1. 107E+00	7. 450E+00	5. 000E-03	1. 000E+00	1. 556E+00	2. 501E-01
2. 500E-02	3. 500E-02	8. 553E-01	7. 698E+00	1. 500E-02	1. 000E+00	1. 556E+00	3. 163E-01
3. 500E-02	4. 500E-02	1. 151E+00	7. 150E+00	3. 000E-02	1. 000E+00	1. 556E+00	2. 065E-01
4. 500E-02	5. 500E-02	1. 088E+00	6. 549E+00	5. 000E-02	1. 000E+00	1. 556E+00	1. 570E-01
5. 500E-02	6. 500E-02	1. 183E+00	8. 034E+00	1. 000E-01	1. 000E+00	1. 555E+00	3. 164E-01
7. 000E-02	9. 000E-02	1. 489E+00	7. 488E+00	2. 000E-01	1. 000E+00	1. 555E+00	2. 146E-01
9. 000E-02	1. 100E-01	1. 395E+02	9. 461E+00	1. 000E-01	1. 000E+00	1. 555E+00	1. 095E-01
1. 250E-01	1. 750E-01	2. 001E+00	8. 465E+00	2. 500E-01	1. 000E+00	1. 555E+00	4. 069E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	1. 190E+00	7. 127E+00	5. 000E-03	1. 000E+00	1. 154E+00	1. 336E-01
1. 750E-02	2. 250E-02	1. 018E+00	5. 529E+00	5. 000E-03	1. 000E+00	1. 154E+00	6. 326E-02
2. 500E-02	3. 500E-02	1. 121E+00	5. 713E+00	1. 500E-02	1. 000E+00	1. 154E+00	6. 524E-02
3. 500E-02	4. 500E-02	1. 164E+00	5. 306E+00	3. 000E-02	1. 000E+00	1. 154E+00	5. 207E-02
4. 500E-02	5. 500E-02	1. 096E+00	4. 860E+00	5. 000E-02	1. 000E+00	1. 154E+00	6. 546E-02
5. 500E-02	6. 500E-02	1. 044E+00	5. 965E+00	1. 000E-01	1. 000E+00	1. 155E+00	7. 643E-02

7.000E-02	9.000E-02	1.122E+00	5.558E+00	2.000E-01	1.000E+00	1.154E+00	6.013E-02
9.000E-02	1.100E-01	1.747E+01	7.025E+00	1.000E-01	1.000E+00	1.155E+00	5.848E-02
1.250E-01	1.750E-01	1.285E+00	6.283E+00	2.500E-01	1.000E+00	1.154E+00	1.339E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.250E-02	1.750E-02	1.130E+00	6.173E+00	5.000E-03	1.000E+00	1.000E+00	6.819E-02
1.750E-02	2.250E-02	1.072E+00	4.789E+00	5.000E-03	1.000E+00	1.000E+00	3.422E-02
2.500E-02	3.500E-02	1.157E+00	4.949E+00	1.500E-02	1.000E+00	1.000E+00	3.527E-02
3.500E-02	4.500E-02	1.052E+00	4.596E+00	3.000E-02	1.000E+00	1.000E+00	3.093E-02
4.500E-02	5.500E-02	1.115E+00	4.210E+00	5.000E-02	1.000E+00	1.000E+00	3.776E-02
5.500E-02	6.500E-02	1.092E+00	5.165E+00	1.000E-01	1.000E+00	1.000E+00	4.034E-02
7.000E-02	9.000E-02	1.068E+00	4.815E+00	2.000E-01	1.000E+00	1.000E+00	3.426E-02
9.000E-02	1.100E-01	9.203E+00	6.083E+00	1.000E-01	1.000E+00	1.000E+00	4.539E-02
1.250E-01	1.750E-01	1.392E+00	5.443E+00	2.500E-01	1.000E+00	1.000E+00	7.384E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.250E-02	1.750E-02	.000E+00	3.555E+01	5.000E-03	2.000E+00	5.758E+00	1.000E+00
1.750E-02	2.250E-02	.000E+00	2.758E+01	5.000E-03	2.000E+00	5.758E+00	1.000E+00
2.500E-02	3.500E-02	.000E+00	2.850E+01	1.500E-02	2.000E+00	5.758E+00	1.000E+00
3.500E-02	4.500E-02	.000E+00	2.647E+01	3.000E-02	2.000E+00	5.758E+00	1.000E+00
4.500E-02	5.500E-02	.000E+00	2.424E+01	5.000E-02	2.000E+00	5.758E+00	1.000E+00
5.500E-02	6.500E-02	.000E+00	2.975E+01	1.000E-01	2.000E+00	5.759E+00	1.000E+00
7.000E-02	9.000E-02	.000E+00	2.773E+01	2.000E-01	2.000E+00	5.759E+00	1.000E+00
9.000E-02	1.100E-01	5.058E+12	3.503E+01	1.000E-01	2.000E+00	5.759E+00	5.193E-01
1.250E-01	1.750E-01	.000E+00	3.135E+01	2.500E-01	2.000E+00	5.759E+00	1.000E+00
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.250E-02	1.750E-02	9.654E-01	9.603E+00	5.000E-03	2.000E+00	1.556E+00	5.764E-01
1.750E-02	2.250E-02	1.488E+00	7.450E+00	5.000E-03	2.000E+00	1.556E+00	1.525E-01
2.500E-02	3.500E-02	1.112E+00	7.698E+00	1.500E-02	2.000E+00	1.556E+00	1.962E-01
3.500E-02	4.500E-02	1.233E+00	7.150E+00	3.000E-02	2.000E+00	1.556E+00	1.411E-01
4.500E-02	5.500E-02	1.217E+00	6.549E+00	5.000E-02	2.000E+00	1.556E+00	1.050E-01
5.500E-02	6.500E-02	1.419E+00	8.034E+00	1.000E-01	2.000E+00	1.555E+00	2.042E-01
7.000E-02	9.000E-02	1.281E+00	7.488E+00	2.000E-01	2.000E+00	1.555E+00	1.636E-01
9.000E-02	1.100E-01	1.400E+02	9.461E+00	1.000E-01	2.000E+00	1.555E+00	7.732E-02
1.250E-01	1.750E-01	1.924E+00	8.465E+00	2.500E-01	2.000E+00	1.555E+00	3.190E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.250E-02	1.750E-02	1.127E+00	7.127E+00	5.000E-03	2.000E+00	1.154E+00	9.711E-02
1.750E-02	2.250E-02	1.028E+00	5.529E+00	5.000E-03	2.000E+00	1.154E+00	4.451E-02
2.500E-02	3.500E-02	1.135E+00	5.713E+00	1.500E-02	2.000E+00	1.154E+00	4.585E-02
3.500E-02	4.500E-02	1.104E+00	5.306E+00	3.000E-02	2.000E+00	1.154E+00	3.781E-02
4.500E-02	5.500E-02	1.133E+00	4.860E+00	5.000E-02	2.000E+00	1.154E+00	4.551E-02
5.500E-02	6.500E-02	1.043E+00	5.965E+00	1.000E-01	2.000E+00	1.155E+00	7.868E-02
7.000E-02	9.000E-02	1.179E+00	5.558E+00	2.000E-01	2.000E+00	1.154E+00	4.149E-02
9.000E-02	1.100E-01	1.830E+01	7.025E+00	1.000E-01	2.000E+00	1.155E+00	4.040E-02
1.250E-01	1.750E-01	1.351E+00	6.283E+00	2.500E-01	2.000E+00	1.154E+00	9.235E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.250E-02	1.750E-02	1.051E+00	6.173E+00	5.000E-03	2.000E+00	1.000E+00	5.000E-02
1.750E-02	2.250E-02	1.059E+00	4.789E+00	5.000E-03	2.000E+00	1.000E+00	2.435E-02
2.500E-02	3.500E-02	1.106E+00	4.949E+00	1.500E-02	2.000E+00	1.000E+00	2.551E-02
3.500E-02	4.500E-02	1.070E+00	4.596E+00	3.000E-02	2.000E+00	1.000E+00	2.169E-02
4.500E-02	5.500E-02	1.108E+00	4.210E+00	5.000E-02	2.000E+00	1.000E+00	2.679E-02
5.500E-02	6.500E-02	1.113E+00	5.165E+00	1.000E-01	2.000E+00	1.000E+00	2.825E-02
7.000E-02	9.000E-02	1.108E+00	4.815E+00	2.000E-01	2.000E+00	1.000E+00	2.379E-02

9.000E-02	1.100E-01	9.277E+00	6.083E+00	1.000E-01	2.000E+00	1.000E+00	3.197E-02
1.250E-01	1.750E-01	1.405E+00	5.443E+00	2.500E-01	2.000E+00	1.000E+00	5.198E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.250E-02	1.750E-02	.000E+00	3.555E+01	5.000E-03	1.000E+01	5.758E+00	1.000E+00
1.750E-02	2.250E-02	.000E+00	2.758E+01	5.000E-03	1.000E+01	5.758E+00	1.000E+00
2.500E-02	3.500E-02	.000E+00	2.850E+01	1.500E-02	1.000E+01	5.758E+00	1.000E+00
3.500E-02	4.500E-02	.000E+00	2.647E+01	3.000E-02	1.000E+01	5.758E+00	1.000E+00
4.500E-02	5.500E-02	1.341E+06	2.424E+01	5.000E-02	1.000E+01	5.758E+00	1.000E+00
5.500E-02	6.500E-02	.000E+00	2.975E+01	1.000E-01	1.000E+01	5.759E+00	1.000E+00
7.000E-02	9.000E-02	.000E+00	2.773E+01	2.000E-01	1.000E+01	5.759E+00	1.000E+00
9.000E-02	1.100E-01	4.332E+12	3.503E+01	1.000E-01	1.000E+01	5.759E+00	2.510E-01
1.250E-01	1.750E-01	7.904E+08	3.135E+01	2.500E-01	1.000E+01	5.759E+00	1.000E+00
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.250E-02	1.750E-02	1.167E+00	9.603E+00	5.000E-03	1.000E+01	1.556E+00	2.345E-01
1.750E-02	2.250E-02	1.188E+00	7.450E+00	5.000E-03	1.000E+01	1.556E+00	7.633E-02
2.500E-02	3.500E-02	1.157E+00	7.698E+00	1.500E-02	1.000E+01	1.556E+00	8.602E-02
3.500E-02	4.500E-02	1.118E+00	7.150E+00	3.000E-02	1.000E+01	1.556E+00	6.625E-02
4.500E-02	5.500E-02	1.191E+00	6.549E+00	5.000E-02	1.000E+01	1.556E+00	6.694E-02
5.500E-02	6.500E-02	1.206E+00	8.034E+00	1.000E-01	1.000E+01	1.555E+00	9.908E-02
7.000E-02	9.000E-02	1.252E+00	7.488E+00	2.000E-01	1.000E+01	1.555E+00	1.193E-01
9.000E-02	1.100E-01	1.453E+02	9.461E+00	1.000E-01	1.000E+01	1.555E+00	3.394E-02
1.250E-01	1.750E-01	2.264E+00	8.465E+00	2.500E-01	1.000E+01	1.555E+00	1.492E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.250E-02	1.750E-02	9.919E-01	7.127E+00	5.000E-03	1.000E+01	1.154E+00	4.630E-02
1.750E-02	2.250E-02	1.048E+00	5.529E+00	5.000E-03	1.000E+01	1.154E+00	1.972E-02
2.500E-02	3.500E-02	1.110E+00	5.713E+00	1.500E-02	1.000E+01	1.154E+00	2.073E-02
3.500E-02	4.500E-02	1.106E+00	5.306E+00	3.000E-02	1.000E+01	1.154E+00	1.690E-02
4.500E-02	5.500E-02	1.118E+00	4.860E+00	5.000E-02	1.000E+01	1.154E+00	2.049E-02
5.500E-02	6.500E-02	1.105E+00	5.965E+00	1.000E-01	1.000E+01	1.155E+00	3.420E-02
7.000E-02	9.000E-02	1.149E+00	5.558E+00	2.000E-01	1.000E+01	1.154E+00	3.204E-02
9.000E-02	1.100E-01	1.824E+01	7.025E+00	1.000E-01	1.000E+01	1.155E+00	2.005E-02
1.250E-01	1.750E-01	1.441E+00	6.283E+00	2.500E-01	1.000E+01	1.154E+00	3.999E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.250E-02	1.750E-02	9.811E-01	6.173E+00	5.000E-03	1.000E+01	1.000E+00	2.314E-02
1.750E-02	2.250E-02	1.040E+00	4.789E+00	5.000E-03	1.000E+01	1.000E+00	1.099E-02
2.500E-02	3.500E-02	1.070E+00	4.949E+00	1.500E-02	1.000E+01	1.000E+00	1.160E-02
3.500E-02	4.500E-02	1.042E+00	4.596E+00	3.000E-02	1.000E+01	1.000E+00	9.829E-03
4.500E-02	5.500E-02	1.076E+00	4.210E+00	5.000E-02	1.000E+01	1.000E+00	1.215E-02
5.500E-02	6.500E-02	1.086E+00	5.165E+00	1.000E-01	1.000E+01	1.000E+00	1.861E-02
7.000E-02	9.000E-02	1.108E+00	4.815E+00	2.000E-01	1.000E+01	1.000E+00	1.813E-02
9.000E-02	1.100E-01	9.324E+00	6.083E+00	1.000E-01	1.000E+01	1.000E+00	1.426E-02
1.250E-01	1.750E-01	1.367E+00	5.443E+00	2.500E-01	1.000E+01	1.000E+00	2.356E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.250E-02	1.750E-02	.000E+00	3.555E+01	5.000E-03	2.000E+01	5.758E+00	1.000E+00
1.750E-02	2.250E-02	.000E+00	2.758E+01	5.000E-03	2.000E+01	5.758E+00	1.000E+00
2.500E-02	3.500E-02	.000E+00	2.850E+01	1.500E-02	2.000E+01	5.758E+00	1.000E+00
3.500E-02	4.500E-02	.000E+00	2.647E+01	3.000E-02	2.000E+01	5.758E+00	1.000E+00
4.500E-02	5.500E-02	1.597E+06	2.424E+01	5.000E-02	2.000E+01	5.758E+00	1.000E+00
5.500E-02	6.500E-02	.000E+00	2.975E+01	1.000E-01	2.000E+01	5.759E+00	1.000E+00
7.000E-02	9.000E-02	.000E+00	2.773E+01	2.000E-01	2.000E+01	5.759E+00	1.000E+00
9.000E-02	1.100E-01	4.403E+12	3.503E+01	1.000E-01	2.000E+01	5.759E+00	2.088E-01

1. 250E-01	1. 750E-01	7. 773E+08	3. 135E+01	2. 500E-01	2. 000E+01	5. 759E+00	1. 000E+00
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	1. 386E+00	9. 603E+00	5. 000E-03	2. 000E+01	1. 556E+00	1. 521E-01
1. 750E-02	2. 250E-02	1. 303E+00	7. 450E+00	5. 000E-03	2. 000E+01	1. 556E+00	5. 154E-02
2. 500E-02	3. 500E-02	1. 314E+00	7. 698E+00	1. 500E-02	2. 000E+01	1. 556E+00	5. 707E-02
3. 500E-02	4. 500E-02	1. 187E+00	7. 150E+00	3. 000E-02	2. 000E+01	1. 556E+00	4. 547E-02
4. 500E-02	5. 500E-02	1. 245E+00	6. 549E+00	5. 000E-02	2. 000E+01	1. 556E+00	4. 630E-02
5. 500E-02	6. 500E-02	1. 371E+00	8. 034E+00	1. 000E-01	2. 000E+01	1. 555E+00	8. 682E-02
7. 000E-02	9. 000E-02	1. 394E+00	7. 488E+00	2. 000E-01	2. 000E+01	1. 555E+00	7. 993E-02
9. 000E-02	1. 100E-01	1. 477E+02	9. 461E+00	1. 000E-01	2. 000E+01	1. 555E+00	2. 380E-02
1. 250E-01	1. 750E-01	2. 300E+00	8. 465E+00	2. 500E-01	2. 000E+01	1. 555E+00	1. 207E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	1. 083E+00	7. 127E+00	5. 000E-03	2. 000E+01	1. 154E+00	3. 133E-02
1. 750E-02	2. 250E-02	1. 072E+00	5. 529E+00	5. 000E-03	2. 000E+01	1. 154E+00	1. 378E-02
2. 500E-02	3. 500E-02	1. 143E+00	5. 713E+00	1. 500E-02	2. 000E+01	1. 154E+00	1. 444E-02
3. 500E-02	4. 500E-02	1. 114E+00	5. 306E+00	3. 000E-02	2. 000E+01	1. 154E+00	1. 882E-02
4. 500E-02	5. 500E-02	1. 124E+00	4. 860E+00	5. 000E-02	2. 000E+01	1. 154E+00	1. 445E-02
5. 500E-02	6. 500E-02	1. 143E+00	5. 965E+00	1. 000E-01	2. 000E+01	1. 155E+00	2. 377E-02
7. 000E-02	9. 000E-02	1. 154E+00	5. 558E+00	2. 000E-01	2. 000E+01	1. 154E+00	2. 260E-02
9. 000E-02	1. 100E-01	1. 844E+01	7. 025E+00	1. 000E-01	2. 000E+01	1. 155E+00	1. 410E-02
1. 250E-01	1. 750E-01	1. 549E+00	6. 283E+00	2. 500E-01	2. 000E+01	1. 154E+00	5. 896E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	9. 444E-01	6. 173E+00	5. 000E-03	2. 000E+01	1. 000E+00	1. 668E-02
1. 750E-02	2. 250E-02	1. 009E+00	4. 789E+00	5. 000E-03	2. 000E+01	1. 000E+00	7. 887E-03
2. 500E-02	3. 500E-02	1. 030E+00	4. 949E+00	1. 500E-02	2. 000E+01	1. 000E+00	8. 359E-03
3. 500E-02	4. 500E-02	1. 019E+00	4. 596E+00	3. 000E-02	2. 000E+01	1. 000E+00	1. 151E-02
4. 500E-02	5. 500E-02	1. 040E+00	4. 210E+00	5. 000E-02	2. 000E+01	1. 000E+00	8. 744E-03
5. 500E-02	6. 500E-02	1. 051E+00	5. 165E+00	1. 000E-01	2. 000E+01	1. 000E+00	1. 338E-02
7. 000E-02	9. 000E-02	1. 058E+00	4. 815E+00	2. 000E-01	2. 000E+01	1. 000E+00	1. 312E-02
9. 000E-02	1. 100E-01	9. 117E+00	6. 083E+00	1. 000E-01	2. 000E+01	1. 000E+00	1. 020E-02
1. 250E-01	1. 750E-01	1. 305E+00	5. 443E+00	2. 500E-01	2. 000E+01	1. 000E+00	1. 987E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	. 000E+00	3. 555E+01	5. 000E-03	1. 000E+02	5. 758E+00	1. 000E+00
1. 750E-02	2. 250E-02	. 000E+00	2. 758E+01	5. 000E-03	1. 000E+02	5. 758E+00	1. 000E+00
2. 500E-02	3. 500E-02	. 000E+00	2. 850E+01	1. 500E-02	1. 000E+02	5. 758E+00	1. 000E+00
3. 500E-02	4. 500E-02	1. 183E+06	2. 647E+01	3. 000E-02	1. 000E+02	5. 758E+00	1. 000E+00
4. 500E-02	5. 500E-02	4. 647E+05	2. 424E+01	5. 000E-02	1. 000E+02	5. 758E+00	1. 000E+00
5. 500E-02	6. 500E-02	. 000E+00	2. 975E+01	1. 000E-01	1. 000E+02	5. 759E+00	1. 000E+00
7. 000E-02	9. 000E-02	. 000E+00	2. 773E+01	2. 000E-01	1. 000E+02	5. 759E+00	1. 000E+00
9. 000E-02	1. 100E-01	4. 524E+12	3. 503E+01	1. 000E-01	1. 000E+02	5. 759E+00	1. 228E-01
1. 250E-01	1. 750E-01	1. 546E+09	3. 135E+01	2. 500E-01	1. 000E+02	5. 759E+00	5. 244E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 250E-02	1. 750E-02	1. 114E+01	9. 603E+00	5. 000E-03	1. 000E+02	1. 556E+00	2. 399E-02
1. 750E-02	2. 250E-02	6. 081E+00	7. 450E+00	5. 000E-03	1. 000E+02	1. 556E+00	1. 067E-02
2. 500E-02	3. 500E-02	6. 688E+00	7. 698E+00	1. 500E-02	1. 000E+02	1. 556E+00	1. 131E-02
3. 500E-02	4. 500E-02	5. 693E+00	7. 150E+00	3. 000E-02	1. 000E+02	1. 556E+00	1. 350E-02
4. 500E-02	5. 500E-02	4. 955E+00	6. 549E+00	5. 000E-02	1. 000E+02	1. 556E+00	1. 123E-02
5. 500E-02	6. 500E-02	7. 417E+00	8. 034E+00	1. 000E-01	1. 000E+02	1. 555E+00	1. 839E-02
7. 000E-02	9. 000E-02	6. 445E+00	7. 488E+00	2. 000E-01	1. 000E+02	1. 555E+00	1. 759E-02
9. 000E-02	1. 100E-01	2. 104E+02	9. 461E+00	1. 000E-01	1. 000E+02	1. 555E+00	9. 994E-03
1. 250E-01	1. 750E-01	1. 097E+01	8. 465E+00	2. 500E-01	1. 000E+02	1. 555E+00	4. 936E-02

ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1./SIN	SIGMA
LOWER	UPPER						
1.250E-02	1.750E-02	1.422E+00	7.127E+00	5.000E-03	1.000E+02	1.154E+00	1.223E-02
1.750E-02	2.250E-02	1.277E+00	5.529E+00	5.000E-03	1.000E+02	1.154E+00	5.648E-03
2.500E-02	3.500E-02	1.327E+00	5.713E+00	1.500E-02	1.000E+02	1.154E+00	5.995E-03
3.500E-02	4.500E-02	1.270E+00	5.306E+00	3.000E-02	1.000E+02	1.154E+00	8.165E-03
4.500E-02	5.500E-02	1.252E+00	4.860E+00	5.000E-02	1.000E+02	1.154E+00	6.122E-03
5.500E-02	6.500E-02	1.396E+00	5.965E+00	1.000E-01	1.000E+02	1.155E+00	1.237E-02
7.000E-02	9.000E-02	1.353E+00	5.558E+00	2.000E-01	1.000E+02	1.154E+00	9.336E-03
9.000E-02	1.100E-01	1.829E+01	7.025E+00	1.000E-01	1.000E+02	1.155E+00	6.404E-03
1.250E-01	1.750E-01	1.804E+00	6.283E+00	2.500E-01	1.000E+02	1.154E+00	2.654E-02
ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1./SIN	SIGMA
LOWER	UPPER						
1.250E-02	1.750E-02	4.636E-01	6.173E+00	5.000E-03	1.000E+02	1.000E+00	1.064E-02
1.750E-02	2.250E-02	5.262E-01	4.789E+00	5.000E-03	1.000E+02	1.000E+00	4.885E-03
2.500E-02	3.500E-02	5.337E-01	4.949E+00	1.500E-02	1.000E+02	1.000E+00	5.193E-03
3.500E-02	4.500E-02	5.429E-01	4.596E+00	3.000E-02	1.000E+02	1.000E+00	7.051E-03
4.500E-02	5.500E-02	5.706E-01	4.210E+00	5.000E-02	1.000E+02	1.000E+00	5.278E-03
5.500E-02	6.500E-02	5.402E-01	5.165E+00	1.000E-01	1.000E+02	1.000E+00	1.089E-02
7.000E-02	9.000E-02	5.582E-01	4.815E+00	2.000E-01	1.000E+02	1.000E+00	8.078E-03
9.000E-02	1.100E-01	6.099E+00	6.083E+00	1.000E-01	1.000E+02	1.000E+00	5.576E-03
1.250E-01	1.750E-01	6.733E-01	5.443E+00	2.500E-01	1.000E+02	1.000E+00	2.304E-02

表A-4 EGS4により求めた点等方線源の再生係数

①		②	③	④	⑤	⑥	⑦
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 183E+00	1. 229E+00	2. 000E-02	1. 000E+00	5. 758E+00	1. 247E-01
2. 500E-01	3. 500E-01	1. 086E+00	1. 225E+00	5. 000E-02	1. 000E+00	5. 758E+00	1. 410E-01
3. 500E-01	4. 500E-01	1. 117E+00	1. 128E+00	8. 000E-02	1. 000E+00	5. 758E+00	1. 327E-01
4. 500E-01	5. 500E-01	1. 190E+00	1. 181E+00	1. 200E-01	1. 000E+00	5. 759E+00	1. 360E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 080E+00	3. 320E-01	2. 000E-02	1. 000E+00	1. 556E+00	1. 594E-02
2. 500E-01	3. 500E-01	1. 064E+00	3. 310E-01	5. 000E-02	1. 000E+00	1. 556E+00	1. 594E-02
3. 500E-01	4. 500E-01	1. 067E+00	3. 047E-01	8. 000E-02	1. 000E+00	1. 556E+00	1. 546E-02
4. 500E-01	5. 500E-01	1. 071E+00	3. 189E-01	1. 200E-01	1. 000E+00	1. 555E+00	1. 471E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 072E+00	2. 464E-01	2. 000E-02	1. 000E+00	1. 154E+00	1. 864E-02
2. 500E-01	3. 500E-01	1. 063E+00	2. 456E-01	5. 000E-02	1. 000E+00	1. 154E+00	9. 780E-03
3. 500E-01	4. 500E-01	1. 057E+00	2. 262E-01	8. 000E-02	1. 000E+00	1. 154E+00	1. 158E-02
4. 500E-01	5. 500E-01	1. 074E+00	2. 368E-01	1. 200E-01	1. 000E+00	1. 155E+00	1. 250E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 064E+00	2. 134E-01	2. 000E-02	1. 000E+00	1. 000E+00	1. 138E-02
2. 500E-01	3. 500E-01	1. 040E+00	2. 128E-01	5. 000E-02	1. 000E+00	1. 000E+00	1. 178E-02
3. 500E-01	4. 500E-01	1. 056E+00	1. 959E-01	8. 000E-02	1. 000E+00	1. 000E+00	1. 096E-02
4. 500E-01	5. 500E-01	1. 077E+00	2. 051E-01	1. 200E-01	1. 000E+00	1. 000E+00	1. 058E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 160E+00	1. 229E+00	2. 000E-02	2. 000E+00	5. 758E+00	9. 788E-02
2. 500E-01	3. 500E-01	1. 101E+00	1. 225E+00	5. 000E-02	2. 000E+00	5. 758E+00	1. 001E-01
3. 500E-01	4. 500E-01	1. 126E+00	1. 128E+00	8. 000E-02	2. 000E+00	5. 758E+00	9. 386E-02
4. 500E-01	5. 500E-01	1. 145E+00	1. 181E+00	1. 200E-01	2. 000E+00	5. 759E+00	1. 012E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 077E+00	3. 320E-01	2. 000E-02	2. 000E+00	1. 556E+00	1. 733E-02
2. 500E-01	3. 500E-01	1. 057E+00	3. 310E-01	5. 000E-02	2. 000E+00	1. 556E+00	1. 310E-02
3. 500E-01	4. 500E-01	1. 066E+00	3. 047E-01	8. 000E-02	2. 000E+00	1. 556E+00	1. 103E-02
4. 500E-01	5. 500E-01	1. 083E+00	3. 189E-01	1. 200E-01	2. 000E+00	1. 555E+00	1. 074E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 071E+00	2. 464E-01	2. 000E-02	2. 000E+00	1. 154E+00	1. 334E-02
2. 500E-01	3. 500E-01	1. 058E+00	2. 456E-01	5. 000E-02	2. 000E+00	1. 154E+00	7. 487E-03
3. 500E-01	4. 500E-01	1. 055E+00	2. 262E-01	8. 000E-02	2. 000E+00	1. 154E+00	8. 194E-03
4. 500E-01	5. 500E-01	1. 073E+00	2. 368E-01	1. 200E-01	2. 000E+00	1. 155E+00	8. 847E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 067E+00	2. 134E-01	2. 000E-02	2. 000E+00	1. 000E+00	1. 021E-02
2. 500E-01	3. 500E-01	1. 043E+00	2. 128E-01	5. 000E-02	2. 000E+00	1. 000E+00	8. 317E-03
3. 500E-01	4. 500E-01	1. 058E+00	1. 959E-01	8. 000E-02	2. 000E+00	1. 000E+00	7. 971E-03
4. 500E-01	5. 500E-01	1. 071E+00	2. 051E-01	1. 200E-01	2. 000E+00	1. 000E+00	7. 499E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 202E+00	1. 229E+00	2. 000E-02	4. 000E+00	5. 758E+00	6. 799E-02
2. 500E-01	3. 500E-01	1. 150E+00	1. 225E+00	5. 000E-02	4. 000E+00	5. 758E+00	6. 930E-02
3. 500E-01	4. 500E-01	1. 171E+00	1. 128E+00	8. 000E-02	4. 000E+00	5. 758E+00	7. 240E-02
4. 500E-01	5. 500E-01	1. 143E+00	1. 181E+00	1. 200E-01	4. 000E+00	5. 759E+00	7. 181E-02

ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1./SIN	SIGMA
LOWER	UPPER						
1. 750E-01	2. 250E-01	1. 174E+00	1. 229E+00	2. 000E-02	6. 000E+00	5. 758E+00	5. 623E-02
2. 500E-01	3. 500E-01	1. 140E+00	1. 225E+00	5. 000E-02	6. 000E+00	5. 758E+00	6. 524E-02
3. 500E-01	4. 500E-01	1. 135E+00	1. 128E+00	8. 000E-02	6. 000E+00	5. 758E+00	6. 042E-02
4. 500E-01	5. 500E-01	1. 156E+00	1. 181E+00	1. 200E-01	6. 000E+00	5. 759E+00	5. 879E-02
ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1./SIN	SIGMA
LOWER	UPPER						
1. 750E-01	2. 250E-01	1. 186E+00	1. 229E+00	2. 000E-02	8. 000E+00	5. 758E+00	4. 844E-02
2. 500E-01	3. 500E-01	1. 142E+00	1. 225E+00	5. 000E-02	8. 000E+00	5. 758E+00	5. 644E-02
3. 500E-01	4. 500E-01	1. 149E+00	1. 128E+00	8. 000E-02	8. 000E+00	5. 758E+00	5. 295E-02
4. 500E-01	5. 500E-01	1. 153E+00	1. 181E+00	1. 200E-01	8. 000E+00	5. 759E+00	5. 099E-02
ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1./SIN	SIGMA
LOWER	UPPER						
1. 750E-01	2. 250E-01	1. 165E+00	1. 229E+00	2. 000E-02	1. 000E+01	5. 758E+00	4. 434E-02
2. 500E-01	3. 500E-01	1. 161E+00	1. 225E+00	5. 000E-02	1. 000E+01	5. 758E+00	5. 034E-02
3. 500E-01	4. 500E-01	1. 141E+00	1. 128E+00	8. 000E-02	1. 000E+01	5. 758E+00	4. 827E-02
4. 500E-01	5. 500E-01	1. 160E+00	1. 181E+00	1. 200E-01	1. 000E+01	5. 759E+00	4. 584E-02
ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1./SIN	SIGMA
LOWER	UPPER						
1. 750E-01	2. 250E-01	1. 080E+00	3. 320E-01	2. 000E-02	1. 000E+01	1. 556E+00	9. 268E-03
2. 500E-01	3. 500E-01	1. 061E+00	3. 310E-01	5. 000E-02	1. 000E+01	1. 556E+00	8. 257E-03
3. 500E-01	4. 500E-01	1. 070E+00	3. 047E-01	8. 000E-02	1. 000E+01	1. 556E+00	7. 274E-03
4. 500E-01	5. 500E-01	1. 083E+00	3. 189E-01	1. 200E-01	1. 000E+01	1. 555E+00	6. 186E-03
ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1./SIN	SIGMA
LOWER	UPPER						
1. 750E-01	2. 250E-01	1. 069E+00	2. 464E-01	2. 000E-02	1. 000E+01	1. 154E+00	5. 972E-03
2. 500E-01	3. 500E-01	1. 054E+00	2. 456E-01	5. 000E-02	1. 000E+01	1. 154E+00	5. 069E-03
3. 500E-01	4. 500E-01	1. 060E+00	2. 262E-01	8. 000E-02	1. 000E+01	1. 154E+00	4. 487E-03
4. 500E-01	5. 500E-01	1. 073E+00	2. 368E-01	1. 200E-01	1. 000E+01	1. 155E+00	4. 227E-03
ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1./SIN	SIGMA
LOWER	UPPER						
1. 750E-01	2. 250E-01	1. 067E+00	2. 134E-01	2. 000E-02	1. 000E+01	1. 000E+00	4. 737E-03
2. 500E-01	3. 500E-01	1. 049E+00	2. 128E-01	5. 000E-02	1. 000E+01	1. 000E+00	4. 027E-03
3. 500E-01	4. 500E-01	1. 056E+00	1. 959E-01	8. 000E-02	1. 000E+01	1. 000E+00	3. 567E-03
4. 500E-01	5. 500E-01	1. 071E+00	2. 051E-01	1. 200E-01	1. 000E+01	1. 000E+00	3. 354E-03
ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1./SIN	SIGMA
LOWER	UPPER						
1. 750E-01	2. 250E-01	1. 155E+00	1. 229E+00	2. 000E-02	2. 000E+01	5. 758E+00	3. 149E-02
2. 500E-01	3. 500E-01	1. 128E+00	1. 225E+00	5. 000E-02	2. 000E+01	5. 758E+00	3. 765E-02
3. 500E-01	4. 500E-01	1. 130E+00	1. 128E+00	8. 000E-02	2. 000E+01	5. 758E+00	3. 447E-02
4. 500E-01	5. 500E-01	1. 153E+00	1. 181E+00	1. 200E-01	2. 000E+01	5. 759E+00	3. 314E-02
ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1./SIN	SIGMA
LOWER	UPPER						
1. 750E-01	2. 250E-01	1. 089E+00	3. 320E-01	2. 000E-02	2. 000E+01	1. 556E+00	6. 839E-03
2. 500E-01	3. 500E-01	1. 067E+00	3. 310E-01	5. 000E-02	2. 000E+01	1. 556E+00	5. 822E-03
3. 500E-01	4. 500E-01	1. 078E+00	3. 047E-01	8. 000E-02	2. 000E+01	1. 556E+00	5. 124E-03
4. 500E-01	5. 500E-01	1. 095E+00	3. 189E-01	1. 200E-01	2. 000E+01	1. 555E+00	4. 823E-03
ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1./SIN	SIGMA
LOWER	UPPER						
1. 750E-01	2. 250E-01	1. 068E+00	2. 464E-01	2. 000E-02	2. 000E+01	1. 154E+00	4. 225E-03
2. 500E-01	3. 500E-01	1. 053E+00	2. 456E-01	5. 000E-02	2. 000E+01	1. 154E+00	3. 587E-03
3. 500E-01	4. 500E-01	1. 059E+00	2. 262E-01	8. 000E-02	2. 000E+01	1. 154E+00	3. 174E-03
4. 500E-01	5. 500E-01	1. 072E+00	2. 368E-01	1. 200E-01	2. 000E+01	1. 155E+00	2. 990E-03
ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1./SIN	SIGMA
LOWER	UPPER						

1. 750E-01	2. 250E-01	1. 043E+00	2. 134E-01	2. 000E-02	2. 000E+01	1. 000E+00	3. 387E-03
2. 500E-01	3. 500E-01	1. 029E+00	2. 128E-01	5. 000E-02	2. 000E+01	1. 000E+00	2. 875E-03
3. 500E-01	4. 500E-01	1. 035E+00	1. 959E-01	8. 000E-02	2. 000E+01	1. 000E+00	2. 549E-03
4. 500E-01	5. 500E-01	1. 046E+00	2. 051E-01	1. 200E-01	2. 000E-01	1. 000E+00	2. 399E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 208E+00	1. 229E+00	2. 000E-02	1. 000E+02	5. 758E+00	2. 374E-02
2. 500E-01	3. 500E-01	1. 179E+00	1. 225E+00	5. 000E-02	1. 000E+02	5. 758E+00	1. 875E-02
3. 500E-01	4. 500E-01	1. 178E+00	1. 128E+00	8. 000E-02	1. 000E+02	5. 758E+00	1. 772E-02
4. 500E-01	5. 500E-01	1. 224E+00	1. 181E+00	1. 200E-01	1. 000E+02	5. 759E+00	1. 605E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 281E+00	3. 320E-01	2. 000E-02	1. 000E+02	1. 556E+00	2. 820E-03
2. 500E-01	3. 500E-01	1. 260E+00	3. 310E-01	5. 000E-02	1. 000E+02	1. 556E+00	2. 397E-03
3. 500E-01	4. 500E-01	1. 265E+00	3. 047E-01	8. 000E-02	1. 000E+02	1. 556E+00	2. 115E-03
4. 500E-01	5. 500E-01	1. 283E+00	3. 189E-01	1. 200E-01	1. 000E+02	1. 555E+00	1. 992E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	9. 769E-01	2. 464E-01	2. 000E-02	1. 000E+02	1. 154E+00	1. 975E-03
2. 500E-01	3. 500E-01	9. 617E-01	2. 456E-01	5. 000E-02	1. 000E+02	1. 154E+00	1. 678E-03
3. 500E-01	4. 500E-01	9. 683E-01	2. 262E-01	8. 000E-02	1. 000E+02	1. 154E+00	1. 484E-03
4. 500E-01	5. 500E-01	9. 817E-01	2. 368E-01	1. 200E-01	1. 000E+02	1. 155E+00	1. 397E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	8. 000E-01	2. 134E-01	2. 000E-02	1. 000E+02	1. 000E+00	1. 730E-03
2. 500E-01	3. 500E-01	7. 886E-01	2. 128E-01	5. 000E-02	1. 000E+02	1. 000E+00	1. 469E-03
3. 500E-01	4. 500E-01	7. 948E-01	1. 959E-01	8. 000E-02	1. 000E+02	1. 000E+00	1. 300E-03
4. 500E-01	5. 500E-01	8. 054E-01	2. 051E-01	1. 200E-01	1. 000E+02	1. 000E+00	1. 223E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 340E+00	2. 458E+00	4. 000E-02	1. 000E+00	5. 758E+00	2. 036E-01
2. 500E-01	3. 500E-01	1. 298E+00	2. 451E+00	1. 000E-01	1. 000E+00	5. 759E+00	2. 341E-01
3. 500E-01	4. 500E-01	1. 614E+00	2. 256E+00	1. 600E-01	1. 000E+00	5. 759E+00	1. 784E-01
4. 500E-01	5. 500E-01	1. 331E+00	2. 362E+00	2. 400E-01	1. 000E+00	5. 759E+00	2. 093E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 090E+00	6. 640E-01	4. 000E-02	1. 000E+00	1. 556E+00	1. 557E-02
2. 500E-01	3. 500E-01	1. 080E+00	6. 619E-01	1. 000E-01	1. 000E+00	1. 555E+00	1. 890E-02
3. 500E-01	4. 500E-01	1. 097E+00	6. 094E-01	1. 600E-01	1. 000E+00	1. 555E+00	2. 239E-02
4. 500E-01	5. 500E-01	1. 150E+00	6. 378E-01	2. 400E-01	1. 000E+00	1. 555E+00	1. 631E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 089E+00	4. 927E-01	4. 000E-02	1. 000E+00	1. 154E+00	1. 126E-02
2. 500E-01	3. 500E-01	1. 073E+00	4. 915E-01	1. 000E-01	1. 000E+00	1. 155E+00	1. 227E-02
3. 500E-01	4. 500E-01	1. 092E+00	4. 525E-01	1. 600E-01	1. 000E+00	1. 155E+00	1. 289E-02
4. 500E-01	5. 500E-01	1. 131E+00	4. 734E-01	2. 400E-01	1. 000E+00	1. 154E+00	1. 421E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 083E+00	4. 268E-01	4. 000E-02	1. 000E+00	1. 000E+00	1. 368E-02
2. 500E-01	3. 500E-01	1. 071E+00	4. 256E-01	1. 000E-01	1. 000E+00	1. 000E+00	1. 159E-02
3. 500E-01	4. 500E-01	1. 088E+00	3. 918E-01	1. 600E-01	1. 000E+00	1. 000E+00	1. 227E-02
4. 500E-01	5. 500E-01	1. 117E+00	4. 101E-01	2. 400E-01	1. 000E+00	1. 000E+00	9. 112E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 481E+00	2. 458E+00	4. 000E-02	2. 000E+00	5. 759E+00	1. 461E-01
2. 500E-01	3. 500E-01	1. 425E+00	2. 451E+00	1. 000E-01	2. 000E+00	5. 759E+00	1. 600E-01



3.500E-01	4.500E-01	1.367E+00	2.256E+00	1.600E-01	2.000E+00	5.759E+00	1.488E-01
4.500E-01	5.500E-01	1.275E+00	2.362E+00	2.400E-01	2.000E+00	5.759E+00	1.651E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.750E-01	2.250E-01	1.092E+00	6.640E-01	4.000E-02	2.000E+00	1.556E+00	1.411E-02
2.500E-01	3.500E-01	1.082E+00	6.619E-01	1.000E-01	2.000E+00	1.555E+00	1.404E-02
3.500E-01	4.500E-01	1.093E+00	6.094E-01	1.600E-01	2.000E+00	1.555E+00	1.586E-02
4.500E-01	5.500E-01	1.135E+00	6.378E-01	2.400E-01	2.000E+00	1.555E+00	1.391E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.750E-01	2.250E-01	1.089E+00	4.927E-01	4.000E-02	2.000E+00	1.154E+00	1.192E-02
2.500E-01	3.500E-01	1.076E+00	4.915E-01	1.000E-01	2.000E+00	1.155E+00	8.665E-03
3.500E-01	4.500E-01	1.090E+00	4.525E-01	1.600E-01	2.000E+00	1.155E+00	1.058E-02
4.500E-01	5.500E-01	1.121E+00	4.734E-01	2.400E-01	2.000E+00	1.154E+00	1.035E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.750E-01	2.250E-01	1.087E+00	4.268E-01	4.000E-02	2.000E+00	1.000E+00	1.106E-02
2.500E-01	3.500E-01	1.073E+00	4.256E-01	1.000E-01	2.000E+00	1.000E+00	9.600E-03
3.500E-01	4.500E-01	1.091E+00	3.918E-01	1.600E-01	2.000E+00	1.000E+00	8.666E-03
4.500E-01	5.500E-01	1.114E+00	4.101E-01	2.400E-01	2.000E+00	1.000E+00	6.453E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.750E-01	2.250E-01	1.379E+00	2.458E+00	4.000E-02	4.000E+00	5.759E+00	1.087E-01
2.500E-01	3.500E-01	1.299E+00	2.451E+00	1.000E-01	4.000E+00	5.759E+00	1.185E-01
3.500E-01	4.500E-01	1.325E+00	2.256E+00	1.600E-01	4.000E+00	5.759E+00	1.091E-01
4.500E-01	5.500E-01	1.340E+00	2.370E+00	2.400E-01	4.000E+00	5.779E+00	1.161E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.750E-01	2.250E-01	1.268E+00	2.458E+00	4.000E-02	6.000E+00	5.759E+00	9.464E-02
2.500E-01	3.500E-01	1.296E+00	2.451E+00	1.000E-01	6.000E+00	5.759E+00	9.749E-02
3.500E-01	4.500E-01	1.237E+00	2.256E+00	1.600E-01	6.000E+00	5.759E+00	9.216E-02
4.500E-01	5.500E-01	1.393E+00	2.362E+00	2.400E-01	6.000E+00	5.759E+00	9.462E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.750E-01	2.250E-01	1.262E+00	2.458E+00	4.000E-02	8.000E+00	5.759E+00	8.631E-02
2.500E-01	3.500E-01	1.283E+00	2.451E+00	1.000E-01	8.000E+00	5.759E+00	8.487E-02
3.500E-01	4.500E-01	1.259E+00	2.256E+00	1.600E-01	8.000E+00	5.759E+00	7.911E-02
4.500E-01	5.500E-01	1.382E+00	2.362E+00	2.400E-01	8.000E+00	5.759E+00	8.227E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.750E-01	2.250E-01	1.282E+00	2.458E+00	4.000E-02	1.000E+01	5.758E+00	7.707E-02
2.500E-01	3.500E-01	1.288E+00	2.451E+00	1.000E-01	1.000E+01	5.759E+00	7.574E-02
3.500E-01	4.500E-01	1.253E+00	2.256E+00	1.600E-01	1.000E+01	5.759E+00	7.092E-02
4.500E-01	5.500E-01	1.377E+00	2.362E+00	2.400E-01	1.000E+01	5.759E+00	7.372E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.750E-01	2.250E-01	1.101E+00	6.640E-01	4.000E-02	1.000E+01	1.556E+00	1.094E-02
2.500E-01	3.500E-01	1.083E+00	6.619E-01	1.000E-01	1.000E+01	1.555E+00	7.640E-03
3.500E-01	4.500E-01	1.108E+00	6.094E-01	1.600E-01	1.000E+01	1.555E+00	8.327E-03
4.500E-01	5.500E-01	1.137E+00	6.378E-01	2.400E-01	1.000E+01	1.555E+00	7.856E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.750E-01	2.250E-01	1.088E+00	4.927E-01	4.000E-02	1.000E+01	1.154E+00	6.449E-03
2.500E-01	3.500E-01	1.075E+00	4.915E-01	1.000E-01	1.000E+01	1.155E+00	4.733E-03
3.500E-01	4.500E-01	1.093E+00	4.525E-01	1.600E-01	1.000E+01	1.155E+00	4.956E-03
4.500E-01	5.500E-01	1.121E+00	4.734E-01	2.400E-01	1.000E+01	1.154E+00	4.654E-03

ENERGY		BLDUP	M. F. P.	PB long	D. long	I./SIN	SIGMA
LOWER	UPPER						
1. 750E-01	2. 250E-01	1. 087E+00	4. 268E-01	4. 000E-02	1. 000E+01	1. 000E+00	5. 220E-03
2. 500E-01	3. 500E-01	1. 074E+00	4. 256E-01	1. 000E-01	1. 000E+01	1. 000E+00	4. 431E-03
3. 500E-01	4. 500E-01	1. 089E+00	3. 918E-01	1. 600E-01	1. 000E+01	1. 000E+00	3. 878E-03
4. 500E-01	5. 500E-01	1. 114E+00	4. 101E-01	2. 400E-01	1. 000E+01	1. 000E+00	3. 647E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	I./SIN	SIGMA
LOWER	UPPER						
1. 750E-01	2. 250E-01	1. 284E+00	2. 458E+00	4. 000E-02	2. 000E+01	5. 758E+00	5. 445E-02
2. 500E-01	3. 500E-01	1. 285E+00	2. 451E+00	1. 000E-01	2. 000E+01	5. 759E+00	5. 453E-02
3. 500E-01	4. 500E-01	1. 240E+00	2. 256E+00	1. 600E-01	2. 000E+01	5. 759E+00	5. 171E-02
4. 500E-01	5. 500E-01	1. 353E+00	2. 362E+00	2. 400E-01	2. 000E+01	5. 759E+00	5. 550E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	I./SIN	SIGMA
LOWER	UPPER						
1. 750E-01	2. 250E-01	1. 109E+00	6. 640E-01	4. 000E-02	2. 000E+01	1. 556E+00	7. 710E-03
2. 500E-01	3. 500E-01	1. 092E+00	6. 619E-01	1. 000E-01	2. 000E+01	1. 555E+00	5. 658E-03
3. 500E-01	4. 500E-01	1. 115E+00	6. 094E-01	1. 600E-01	2. 000E+01	1. 555E+00	5. 871E-03
4. 500E-01	5. 500E-01	1. 146E+00	6. 378E-01	2. 400E-01	2. 000E+01	1. 555E+00	5. 533E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	I./SIN	SIGMA
LOWER	UPPER						
1. 750E-01	2. 250E-01	1. 088E+00	4. 927E-01	4. 000E-02	2. 000E+01	1. 154E+00	4. 733E-03
2. 500E-01	3. 500E-01	1. 076E+00	4. 915E-01	1. 000E-01	2. 000E+01	1. 155E+00	4. 018E-03
3. 500E-01	4. 500E-01	1. 094E+00	4. 525E-01	1. 600E-01	2. 000E+01	1. 155E+00	3. 502E-03
4. 500E-01	5. 500E-01	1. 121E+00	4. 734E-01	2. 400E-01	2. 000E+01	1. 154E+00	3. 293E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	I./SIN	SIGMA
LOWER	UPPER						
1. 750E-01	2. 250E-01	1. 064E+00	4. 268E-01	4. 000E-02	2. 000E+01	1. 000E+00	3. 732E-03
2. 500E-01	3. 500E-01	1. 051E+00	4. 256E-01	1. 000E-01	2. 000E+01	1. 000E+00	3. 169E-03
3. 500E-01	4. 500E-01	1. 066E+00	3. 918E-01	1. 600E-01	2. 000E+01	1. 000E+00	2. 772E-03
4. 500E-01	5. 500E-01	1. 089E+00	4. 101E-01	2. 400E-01	2. 000E+01	1. 000E+00	2. 608E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	I./SIN	SIGMA
LOWER	UPPER						
1. 750E-01	2. 250E-01	1. 375E+00	2. 458E+00	4. 000E-02	1. 000E+02	5. 758E+00	2. 710E-02
2. 500E-01	3. 500E-01	1. 322E+00	2. 451E+00	1. 000E-01	1. 000E+02	5. 759E+00	2. 922E-02
3. 500E-01	4. 500E-01	1. 356E+00	2. 256E+00	1. 600E-01	1. 000E+02	5. 759E+00	2. 699E-02
4. 500E-01	5. 500E-01	1. 468E+00	2. 362E+00	2. 400E-01	1. 000E+02	5. 759E+00	2. 897E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	I./SIN	SIGMA
LOWER	UPPER						
1. 750E-01	2. 250E-01	1. 363E+00	6. 640E-01	4. 000E-02	1. 000E+02	1. 556E+00	3. 228E-03
2. 500E-01	3. 500E-01	1. 342E+00	6. 619E-01	1. 000E-01	1. 000E+02	1. 555E+00	2. 742E-03
3. 500E-01	4. 500E-01	1. 356E+00	6. 094E-01	1. 600E-01	1. 000E+02	1. 555E+00	2. 381E-03
4. 500E-01	5. 500E-01	1. 396E+00	6. 378E-01	2. 400E-01	1. 000E+02	1. 555E+00	2. 242E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	I./SIN	SIGMA
LOWER	UPPER						
1. 750E-01	2. 250E-01	1. 001E+00	4. 927E-01	4. 000E-02	1. 000E+02	1. 154E+00	2. 207E-03
2. 500E-01	3. 500E-01	9. 879E-01	4. 915E-01	1. 000E-01	1. 000E+02	1. 155E+00	1. 875E-03
3. 500E-01	4. 500E-01	1. 003E+00	4. 525E-01	1. 600E-01	1. 000E+02	1. 155E+00	1. 635E-03
4. 500E-01	5. 500E-01	1. 028E+00	4. 734E-01	2. 400E-01	1. 000E+02	1. 154E+00	1. 537E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	I./SIN	SIGMA
LOWER	UPPER						
1. 750E-01	2. 250E-01	7. 993E-01	4. 268E-01	4. 000E-02	1. 000E+02	1. 000E+00	1. 926E-03
2. 500E-01	3. 500E-01	7. 898E-01	4. 256E-01	1. 000E-01	1. 000E+02	1. 000E+00	1. 634E-03
3. 500E-01	4. 500E-01	8. 053E-01	3. 918E-01	1. 600E-01	1. 000E+02	1. 000E+00	1. 426E-03
4. 500E-01	5. 500E-01	8. 242E-01	4. 101E-01	2. 400E-01	1. 000E+02	1. 000E+00	1. 341E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	I./SIN	SIGMA
LOWER	UPPER						
1. 750E-01	2. 250E-01	7. 993E-01	4. 268E-01	4. 000E-02	1. 000E+02	1. 000E+00	1. 926E-03
2. 500E-01	3. 500E-01	7. 898E-01	4. 256E-01	1. 000E-01	1. 000E+02	1. 000E+00	1. 634E-03
3. 500E-01	4. 500E-01	8. 053E-01	3. 918E-01	1. 600E-01	1. 000E+02	1. 000E+00	1. 426E-03
4. 500E-01	5. 500E-01	8. 242E-01	4. 101E-01	2. 400E-01	1. 000E+02	1. 000E+00	1. 341E-03

1. 750E-01	2. 250E-01	9. 992E-01	6. 145E+00	1. 000E-01	1. 000E+00	5. 759E+00	8. 275E-01
2. 500E-01	3. 500E-01	9. 129E-01	6. 128E+00	2. 500E-01	1. 000E+00	5. 759E+00	1. 000E+00
3. 500E-01	4. 500E-01	2. 353E+00	5. 641E+00	4. 000E-01	1. 000E+00	5. 759E+00	7. 203E-01
4. 500E-01	5. 500E-01	3. 684E+00	5. 904E+00	6. 000E-01	1. 000E+00	5. 758E+00	7. 160E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 129E+00	1. 660E+00	1. 000E-01	1. 000E+00	1. 555E+00	2. 411E-02
2. 500E-01	3. 500E-01	1. 123E+00	1. 654E+00	2. 500E-01	1. 000E+00	1. 555E+00	2. 649E-02
3. 500E-01	4. 500E-01	1. 177E+00	1. 524E+00	4. 000E-01	1. 000E+00	1. 556E+00	3. 579E-02
4. 500E-01	5. 500E-01	1. 247E+00	1. 595E+00	6. 000E-01	1. 000E+00	1. 555E+00	2. 538E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 121E+00	1. 232E+00	1. 000E-01	1. 000E+00	1. 155E+00	1. 829E-02
2. 500E-01	3. 500E-01	1. 122E+00	1. 228E+00	2. 500E-01	1. 000E+00	1. 154E+00	1. 474E-02
3. 500E-01	4. 500E-01	1. 161E+00	1. 131E+00	4. 000E-01	1. 000E+00	1. 155E+00	1. 374E-02
4. 500E-01	5. 500E-01	1. 236E+00	1. 184E+00	6. 000E-01	1. 000E+00	1. 155E+00	1. 338E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 119E+00	1. 067E+00	1. 000E-01	1. 000E+00	1. 000E+00	1. 194E-02
2. 500E-01	3. 500E-01	1. 118E+00	1. 064E+00	2. 500E-01	1. 000E+00	1. 000E+00	1. 098E-02
3. 500E-01	4. 500E-01	1. 153E+00	9. 795E-01	4. 000E-01	1. 000E+00	1. 000E+00	1. 011E-02
4. 500E-01	5. 500E-01	1. 207E+00	1. 025E+00	6. 000E-01	1. 000E+00	1. 000E+00	1. 303E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 562E+00	6. 145E+00	1. 000E-01	2. 000E+00	5. 759E+00	6. 775E-01
2. 500E-01	3. 500E-01	1. 634E+00	6. 128E+00	2. 500E-01	2. 000E+00	5. 759E+00	8. 030E-01
3. 500E-01	4. 500E-01	2. 213E+00	5. 641E+00	4. 000E-01	2. 000E+00	5. 759E+00	5. 930E-01
4. 500E-01	5. 500E-01	3. 748E+00	5. 904E+00	6. 000E-01	2. 000E+00	5. 758E+00	5. 144E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 126E+00	1. 660E+00	1. 000E-01	2. 000E+00	1. 555E+00	1. 706E-02
2. 500E-01	3. 500E-01	1. 123E+00	1. 654E+00	2. 500E-01	2. 000E+00	1. 555E+00	1. 950E-02
3. 500E-01	4. 500E-01	1. 169E+00	1. 524E+00	4. 000E-01	2. 000E+00	1. 556E+00	2. 569E-02
4. 500E-01	5. 500E-01	1. 251E+00	1. 595E+00	6. 000E-01	2. 000E+00	1. 555E+00	2. 285E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 117E+00	1. 232E+00	1. 000E-01	2. 000E+00	1. 155E+00	1. 296E-02
2. 500E-01	3. 500E-01	1. 117E+00	1. 228E+00	2. 500E-01	2. 000E+00	1. 154E+00	1. 103E-02
3. 500E-01	4. 500E-01	1. 171E+00	1. 131E+00	4. 000E-01	2. 000E+00	1. 155E+00	1. 152E-02
4. 500E-01	5. 500E-01	1. 229E+00	1. 184E+00	6. 000E-01	2. 000E+00	1. 155E+00	1. 042E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 115E+00	1. 067E+00	1. 000E-01	2. 000E+00	1. 000E+00	9. 868E-03
2. 500E-01	3. 500E-01	1. 114E+00	1. 064E+00	2. 500E-01	2. 000E+00	1. 000E+00	8. 211E-03
3. 500E-01	4. 500E-01	1. 156E+00	9. 795E-01	4. 000E-01	2. 000E+00	1. 000E+00	1. 009E-02
4. 500E-01	5. 500E-01	1. 211E+00	1. 025E+00	6. 000E-01	2. 000E+00	1. 000E+00	9. 636E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	2. 020E+00	6. 145E+00	1. 000E-01	4. 000E+00	5. 759E+00	4. 543E-01
2. 500E-01	3. 500E-01	2. 061E+00	6. 128E+00	2. 500E-01	4. 000E+00	5. 759E+00	5. 430E-01
3. 500E-01	4. 500E-01	2. 049E+00	5. 641E+00	4. 000E-01	4. 000E+00	5. 759E+00	4. 415E-01
4. 500E-01	5. 500E-01	3. 636E+00	5. 904E+00	6. 000E-01	4. 000E+00	5. 758E+00	3. 817E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	2. 859E+00	6. 145E+00	1. 000E-01	6. 000E+00	5. 759E+00	3. 346E-01
2. 500E-01	3. 500E-01	2. 036E+00	6. 128E+00	2. 500E-01	6. 000E+00	5. 759E+00	4. 476E-01

3. 500E-01	4. 500E-01	2. 231E+00	5. 641E+00	4. 000E-01	6. 000E+00	5. 759E+00	3. 505E-01
4. 500E-01	5. 500E-01	3. 618E+00	5. 904E+00	6. 000E-01	6. 000E+00	5. 758E+00	3. 147E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	2. 853E+00	6. 145E+00	1. 000E-01	8. 000E+00	5. 759E+00	3. 133E-01
2. 500E-01	3. 500E-01	1. 893E+00	6. 128E+00	2. 500E-01	8. 000E+00	5. 759E+00	4. 019E-01
3. 500E-01	4. 500E-01	2. 473E+00	5. 641E+00	4. 000E-01	8. 000E+00	5. 759E+00	2. 883E-01
4. 500E-01	5. 500E-01	3. 969E+00	5. 904E+00	6. 000E-01	8. 000E+00	5. 758E+00	2. 641E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	2. 580E+00	6. 145E+00	1. 000E-01	1. 000E+01	5. 759E+00	2. 947E-01
2. 500E-01	3. 500E-01	2. 071E+00	6. 128E+00	2. 500E-01	1. 000E+01	5. 759E+00	3. 437E-01
3. 500E-01	4. 500E-01	2. 186E+00	5. 641E+00	4. 000E-01	1. 000E+01	5. 759E+00	2. 742E-01
4. 500E-01	5. 500E-01	3. 871E+00	5. 904E+00	6. 000E-01	1. 000E+01	5. 758E+00	2. 464E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 129E+00	1. 660E+00	1. 000E-01	1. 000E+01	1. 555E+00	1. 133E-02
2. 500E-01	3. 500E-01	1. 133E+00	1. 654E+00	2. 500E-01	1. 000E+01	1. 555E+00	1. 397E-02
3. 500E-01	4. 500E-01	1. 182E+00	1. 524E+00	4. 000E-01	1. 000E+01	1. 556E+00	1. 183E-02
4. 500E-01	5. 500E-01	1. 257E+00	1. 595E+00	6. 000E-01	1. 000E+01	1. 555E+00	1. 159E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 115E+00	1. 232E+00	1. 000E-01	1. 000E+01	1. 155E+00	9. 235E-03
2. 500E-01	3. 500E-01	1. 118E+00	1. 228E+00	2. 500E-01	1. 000E+01	1. 154E+00	8. 042E-03
3. 500E-01	4. 500E-01	1. 167E+00	1. 131E+00	4. 000E-01	1. 000E+01	1. 155E+00	6. 468E-03
4. 500E-01	5. 500E-01	1. 230E+00	1. 184E+00	6. 000E-01	1. 000E+01	1. 155E+00	5. 517E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 107E+00	1. 067E+00	1. 000E-01	1. 000E+01	1. 000E+00	6. 128E-03
2. 500E-01	3. 500E-01	1. 114E+00	1. 064E+00	2. 500E-01	1. 000E+01	1. 000E+00	5. 995E-03
3. 500E-01	4. 500E-01	1. 150E+00	9. 795E-01	4. 000E-01	1. 000E+01	1. 000E+00	5. 079E-03
4. 500E-01	5. 500E-01	1. 205E+00	1. 025E+00	6. 000E-01	1. 000E+01	1. 000E+00	4. 789E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	2. 671E+00	6. 145E+00	1. 000E-01	2. 000E+01	5. 759E+00	2. 130E-01
2. 500E-01	3. 500E-01	2. 337E+00	6. 128E+00	2. 500E-01	2. 000E+01	5. 759E+00	2. 325E-01
3. 500E-01	4. 500E-01	2. 148E+00	5. 641E+00	4. 000E-01	2. 000E+01	5. 759E+00	1. 956E-01
4. 500E-01	5. 500E-01	3. 372E+00	5. 904E+00	6. 000E-01	2. 000E+01	5. 758E+00	1. 902E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 150E+00	1. 660E+00	1. 000E-01	2. 000E+01	1. 555E+00	1. 159E-02
2. 500E-01	3. 500E-01	1. 149E+00	1. 654E+00	2. 500E-01	2. 000E+01	1. 555E+00	1. 003E-02
3. 500E-01	4. 500E-01	1. 201E+00	1. 524E+00	4. 000E-01	2. 000E+01	1. 556E+00	8. 327E-03
4. 500E-01	5. 500E-01	1. 274E+00	1. 595E+00	6. 000E-01	2. 000E+01	1. 555E+00	8. 187E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 118E+00	1. 232E+00	1. 000E-01	2. 000E+01	1. 155E+00	6. 768E-03
2. 500E-01	3. 500E-01	1. 123E+00	1. 228E+00	2. 500E-01	2. 000E+01	1. 154E+00	5. 685E-03
3. 500E-01	4. 500E-01	1. 170E+00	1. 131E+00	4. 000E-01	2. 000E+01	1. 155E+00	4. 771E-03
4. 500E-01	5. 500E-01	1. 231E+00	1. 184E+00	6. 000E-01	2. 000E+01	1. 155E+00	4. 504E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 092E+00	1. 067E+00	1. 000E-01	2. 000E+01	1. 000E+00	4. 894E-03
2. 500E-01	3. 500E-01	1. 097E+00	1. 064E+00	2. 500E-01	2. 000E+01	1. 000E+00	4. 270E-03
3. 500E-01	4. 500E-01	1. 142E+00	9. 795E-01	4. 000E-01	2. 000E+01	1. 000E+00	3. 603E-03
4. 500E-01	5. 500E-01	1. 196E+00	1. 025E+00	6. 000E-01	2. 000E+01	1. 000E+00	3. 399E-03

ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1. /SIN	SIGMA
LOWER	UPPER						
1. 750E-01	2. 250E-01	3. 140E+00	6. 145E+00	1. 000E-01	1. 000E+02	5. 759E+00	9. 731E-02
2. 500E-01	3. 500E-01	2. 792E+00	6. 128E+00	2. 500E-01	1. 000E+02	5. 759E+00	1. 046E-01
3. 500E-01	4. 500E-01	2. 838E+00	5. 641E+00	4. 000E-01	1. 000E+02	5. 759E+00	8. 013E-02
4. 500E-01	5. 500E-01	3. 667E+00	5. 904E+00	6. 000E-01	1. 000E+02	5. 758E+00	8. 846E-02
ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1. /SIN	SIGMA
LOWER	UPPER						
1. 750E-01	2. 250E-01	1. 632E+00	1. 660E+00	1. 000E-01	1. 000E+02	1. 555E+00	4. 857E-03
2. 500E-01	3. 500E-01	1. 630E+00	1. 654E+00	2. 500E-01	1. 000E+02	1. 555E+00	4. 089E-03
3. 500E-01	4. 500E-01	1. 662E+00	1. 524E+00	4. 000E-01	1. 000E+02	1. 556E+00	3. 410E-03
4. 500E-01	5. 500E-01	1. 766E+00	1. 595E+00	6. 000E-01	1. 000E+02	1. 555E+00	3. 230E-03
ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1. /SIN	SIGMA
LOWER	UPPER						
1. 750E-01	2. 250E-01	1. 049E+00	1. 232E+00	1. 000E-01	1. 000E+02	1. 155E+00	3. 125E-03
2. 500E-01	3. 500E-01	1. 051E+00	1. 228E+00	2. 500E-01	1. 000E+02	1. 154E+00	2. 628E-03
3. 500E-01	4. 500E-01	1. 093E+00	1. 131E+00	4. 000E-01	1. 000E+02	1. 155E+00	2. 208E-03
4. 500E-01	5. 500E-01	1. 150E+00	1. 184E+00	6. 000E-01	1. 000E+02	1. 155E+00	2. 084E-03
ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1. /SIN	SIGMA
LOWER	UPPER						
1. 750E-01	2. 250E-01	7. 706E-01	1. 067E+00	1. 000E-01	1. 000E+02	1. 000E+00	2. 704E-03
2. 500E-01	3. 500E-01	7. 748E-01	1. 064E+00	2. 500E-01	1. 000E+02	1. 000E+00	2. 273E-03
3. 500E-01	4. 500E-01	8. 151E-01	9. 795E-01	4. 000E-01	1. 000E+02	1. 000E+00	1. 908E-03
4. 500E-01	5. 500E-01	8. 529E-01	1. 025E+00	6. 000E-01	1. 000E+02	1. 000E+00	1. 800E-03
ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1. /SIN	SIGMA
LOWER	UPPER						
1. 750E-01	2. 250E-01	1. 470E+02	1. 229E+01	2. 000E-01	1. 000E+00	5. 759E+00	1. 000E+00
2. 500E-01	3. 500E-01	5. 648E+01	1. 225E+01	5. 000E-01	1. 000E+00	5. 759E+00	1. 000E+00
3. 500E-01	4. 500E-01	6. 361E+01	1. 128E+01	8. 000E-01	1. 000E+00	5. 759E+00	1. 000E+00
4. 500E-01	5. 500E-01	. 000E+00	1. 181E+01	1. 200E+00	1. 000E+00	5. 758E+00	1. 000E+00
ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1. /SIN	SIGMA
LOWER	UPPER						
1. 750E-01	2. 250E-01	1. 185E+00	3. 319E+00	2. 000E-01	1. 000E+00	1. 555E+00	4. 561E-02
2. 500E-01	3. 500E-01	1. 185E+00	3. 310E+00	5. 000E-01	1. 000E+00	1. 556E+00	5. 398E-02
3. 500E-01	4. 500E-01	1. 239E+00	3. 049E+00	8. 000E-01	1. 000E+00	1. 556E+00	5. 326E-02
4. 500E-01	5. 500E-01	1. 447E+00	3. 189E+00	1. 200E+00	1. 000E+00	1. 555E+00	4. 968E-02
ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1. /SIN	SIGMA
LOWER	UPPER						
1. 750E-01	2. 250E-01	1. 131E+00	2. 463E+00	2. 000E-01	1. 000E+00	1. 154E+00	2. 108E-02
2. 500E-01	3. 500E-01	1. 163E+00	2. 457E+00	5. 000E-01	1. 000E+00	1. 155E+00	2. 598E-02
3. 500E-01	4. 500E-01	1. 267E+00	2. 262E+00	8. 000E-01	1. 000E+00	1. 155E+00	2. 321E-02
4. 500E-01	5. 500E-01	1. 349E+00	2. 368E+00	1. 200E+00	1. 000E+00	1. 155E+00	2. 699E-02
ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1. /SIN	SIGMA
LOWER	UPPER						
1. 750E-01	2. 250E-01	1. 148E+00	2. 134E+00	2. 000E-01	1. 000E+00	1. 000E+00	1. 758E-02
2. 500E-01	3. 500E-01	1. 150E+00	2. 128E+00	5. 000E-01	1. 000E+00	1. 000E+00	1. 834E-02
3. 500E-01	4. 500E-01	1. 253E+00	1. 959E+00	8. 000E-01	1. 000E+00	1. 000E+00	1. 585E-02
4. 500E-01	5. 500E-01	1. 306E+00	2. 051E+00	1. 200E+00	1. 000E+00	1. 000E+00	1. 596E-02
ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1. /SIN	SIGMA
LOWER	UPPER						
1. 750E-01	2. 250E-01	8. 837E+01	1. 229E+01	2. 000E-01	2. 000E+00	5. 759E+00	1. 000E+00
2. 500E-01	3. 500E-01	2. 824E+01	1. 225E+01	5. 000E-01	2. 000E+00	5. 759E+00	1. 000E+00
3. 500E-01	4. 500E-01	3. 180E+01	1. 128E+01	8. 000E-01	2. 000E+00	5. 759E+00	1. 000E+00
4. 500E-01	5. 500E-01	2. 458E+01	1. 181E+01	1. 200E+00	2. 000E+00	5. 758E+00	1. 000E+00
ENERGY		BLDUP	M. F. P.	PB long (cm)	D. long (cm)	1. /SIN	SIGMA
LOWER	UPPER						

1. 750E-01	2. 250E-01	1. 167E+00	3. 319E+00	2. 000E-01	2. 000E+00	1. 555E+00	3. 636E-02
2. 500E-01	3. 500E-01	1. 199E+00	3. 310E+00	5. 000E-01	2. 000E+00	1. 556E+00	3. 795E-02
3. 500E-01	4. 500E-01	1. 272E+00	3. 049E+00	8. 000E-01	2. 000E+00	1. 556E+00	3. 844E-02
4. 500E-01	5. 500E-01	1. 445E+00	3. 189E+00	1. 200E+00	2. 000E+00	1. 555E+00	3. 632E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 131E+00	2. 463E+00	2. 000E-01	2. 000E+00	1. 154E+00	1. 490E-02
2. 500E-01	3. 500E-01	1. 164E+00	2. 457E+00	5. 000E-01	2. 000E+00	1. 155E+00	1. 945E-02
3. 500E-01	4. 500E-01	1. 264E+00	2. 262E+00	8. 000E-01	2. 000E+00	1. 155E+00	1. 683E-02
4. 500E-01	5. 500E-01	1. 349E+00	2. 368E+00	1. 200E+00	2. 000E+00	1. 155E+00	2. 093E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 132E+00	2. 134E+00	2. 000E-01	2. 000E+00	1. 000E+00	1. 717E-02
2. 500E-01	3. 500E-01	1. 154E+00	2. 128E+00	5. 000E-01	2. 000E+00	1. 000E+00	1. 341E-02
3. 500E-01	4. 500E-01	1. 260E+00	1. 959E+00	8. 000E-01	2. 000E+00	1. 000E+00	1. 703E-02
4. 500E-01	5. 500E-01	1. 330E+00	2. 051E+00	1. 200E+00	2. 000E+00	1. 000E+00	1. 384E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	4. 419E+01	1. 229E+01	2. 000E-01	4. 000E+00	5. 759E+00	1. 000E+00
2. 500E-01	3. 500E-01	4. 660E+01	1. 225E+01	5. 000E-01	4. 000E+00	5. 759E+00	1. 000E+00
3. 500E-01	4. 500E-01	2. 811E+01	1. 128E+01	8. 000E-01	4. 000E+00	5. 759E+00	1. 000E+00
4. 500E-01	5. 500E-01	3. 265E+01	1. 181E+01	1. 200E+00	4. 000E+00	5. 758E+00	1. 000E+00
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	3. 416E+01	1. 229E+01	2. 000E-01	6. 000E+00	5. 759E+00	1. 000E+00
2. 500E-01	3. 500E-01	4. 153E+01	1. 225E+01	5. 000E-01	6. 000E+00	5. 759E+00	1. 000E+00
3. 500E-01	4. 500E-01	3. 479E+01	1. 128E+01	8. 000E-01	6. 000E+00	5. 759E+00	9. 338E-01
4. 500E-01	5. 500E-01	3. 720E+01	1. 181E+01	1. 200E+00	6. 000E+00	5. 758E+00	1. 000E+00
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	3. 922E+01	1. 229E+01	2. 000E-01	8. 000E+00	5. 759E+00	9. 833E-01
2. 500E-01	3. 500E-01	5. 156E+01	1. 225E+01	5. 000E-01	8. 000E+00	5. 759E+00	1. 000E+00
3. 500E-01	4. 500E-01	3. 561E+01	1. 128E+01	8. 000E-01	8. 000E+00	5. 759E+00	7. 993E-01
4. 500E-01	5. 500E-01	4. 734E+01	1. 181E+01	1. 200E+00	8. 000E+00	5. 758E+00	1. 000E+00
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	4. 342E+01	1. 229E+01	2. 000E-01	1. 000E+01	5. 759E+00	9. 107E-01
2. 500E-01	3. 500E-01	8. 398E+01	1. 225E+01	5. 000E-01	1. 000E+01	5. 759E+00	9. 909E-01
3. 500E-01	4. 500E-01	3. 955E+01	1. 128E+01	8. 000E-01	1. 000E+01	5. 759E+00	6. 784E-01
4. 500E-01	5. 500E-01	7. 145E+01	1. 181E+01	1. 200E+00	1. 000E+01	5. 758E+00	8. 319E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 181E+00	3. 319E+00	2. 000E-01	1. 000E-01	1. 555E+00	1. 801E-02
2. 500E-01	3. 500E-01	1. 201E+00	3. 310E+00	5. 000E-01	1. 000E+01	1. 556E+00	1. 984E-02
3. 500E-01	4. 500E-01	1. 305E+00	3. 049E+00	8. 000E-01	1. 000E+01	1. 556E+00	2. 059E-02
4. 500E-01	5. 500E-01	1. 430E+00	3. 189E+00	1. 200E+00	1. 000E+01	1. 555E+00	1. 669E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 137E+00	2. 463E+00	2. 000E-01	1. 000E+01	1. 154E+00	1. 350E-02
2. 500E-01	3. 500E-01	1. 180E+00	2. 457E+00	5. 000E-01	1. 000E+01	1. 155E+00	1. 056E-02
3. 500E-01	4. 500E-01	1. 255E+00	2. 262E+00	8. 000E-01	1. 000E+01	1. 155E+00	9. 705E-03
4. 500E-01	5. 500E-01	1. 352E+00	2. 368E+00	1. 200E+00	1. 000E+01	1. 155E+00	1. 104E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1. /SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1. 750E-01	2. 250E-01	1. 124E+00	2. 134E+00	2. 000E-01	1. 000E+01	1. 000E+00	8. 314E-03
2. 500E-01	3. 500E-01	1. 151E+00	2. 128E+00	5. 000E-01	1. 000E+01	1. 000E+00	7. 824E-03

3.500E-01	4.500E-01	1.239E+00	1.959E+00	8.000E-01	1.000E+01	1.000E+00	8.018E-03
4.500E-01	5.500E-01	1.327E+00	2.051E+00	1.200E+00	1.000E+01	1.000E+00	7.465E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.750E-01	2.250E-01	5.413E+01	1.229E+01	2.000E-01	2.000E+01	5.759E+00	8.029E-01
2.500E-01	3.500E-01	7.188E+01	1.225E+01	5.000E-01	2.000E+01	5.759E+00	8.154E-01
3.500E-01	4.500E-01	3.512E+01	1.128E+01	8.000E-01	2.000E+01	5.759E+00	6.380E-01
4.500E-01	5.500E-01	6.789E+01	1.181E+01	1.200E+00	2.000E+01	5.758E+00	6.697E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.750E-01	2.250E-01	1.213E+00	3.319E+00	2.000E-01	2.000E+01	1.555E+00	1.972E-02
2.500E-01	3.500E-01	1.247E+00	3.310E+00	5.000E-01	2.000E+01	1.556E+00	1.462E-02
3.500E-01	4.500E-01	1.344E+00	3.049E+00	8.000E-01	2.000E+01	1.556E+00	1.448E-02
4.500E-01	5.500E-01	1.468E+00	3.189E+00	1.200E+00	2.000E+01	1.555E+00	1.288E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.750E-01	2.250E-01	1.146E+00	2.463E+00	2.000E-01	2.000E+01	1.154E+00	9.506E-03
2.500E-01	3.500E-01	1.185E+00	2.457E+00	5.000E-01	2.000E+01	1.155E+00	9.375E-03
3.500E-01	4.500E-01	1.267E+00	2.262E+00	8.000E-01	2.000E+01	1.155E+00	7.867E-03
4.500E-01	5.500E-01	1.366E+00	2.368E+00	1.200E+00	2.000E+01	1.155E+00	7.765E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.750E-01	2.250E-01	1.100E+00	2.134E+00	2.000E-01	2.000E+01	1.000E+00	5.941E-03
2.500E-01	3.500E-01	1.131E+00	2.128E+00	5.000E-01	2.000E+01	1.000E+00	7.182E-03
3.500E-01	4.500E-01	1.212E+00	1.959E+00	8.000E-01	2.000E+01	1.000E+00	5.731E-03
4.500E-01	5.500E-01	1.303E+00	2.051E+00	1.200E+00	2.000E+01	1.000E+00	5.329E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.750E-01	2.250E-01	4.845E+01	1.229E+01	2.000E-01	1.000E+02	5.759E+00	4.416E-01
2.500E-01	3.500E-01	6.736E+01	1.225E+01	5.000E-01	1.000E+02	5.759E+00	4.011E-01
3.500E-01	4.500E-01	3.892E+01	1.128E+01	8.000E-01	1.000E+02	5.759E+00	3.406E-01
4.500E-01	5.500E-01	7.273E+01	1.181E+01	1.200E+00	1.000E+02	5.758E+00	3.309E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.750E-01	2.250E-01	2.302E+00	3.319E+00	2.000E-01	1.000E+02	1.555E+00	9.050E-03
2.500E-01	3.500E-01	2.358E+00	3.310E+00	5.000E-01	1.000E+02	1.556E+00	7.809E-03
3.500E-01	4.500E-01	2.384E+00	3.049E+00	8.000E-01	1.000E+02	1.556E+00	6.128E-03
4.500E-01	5.500E-01	2.639E+00	3.189E+00	1.200E+00	1.000E+02	1.555E+00	5.897E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.750E-01	2.250E-01	1.119E+00	2.463E+00	2.000E-01	1.000E+02	1.154E+00	5.601E-03
2.500E-01	3.500E-01	1.156E+00	2.457E+00	5.000E-01	1.000E+02	1.155E+00	4.648E-03
3.500E-01	4.500E-01	1.227E+00	2.262E+00	8.000E-01	1.000E+02	1.155E+00	3.681E-03
4.500E-01	5.500E-01	1.330E+00	2.368E+00	1.200E+00	1.000E+02	1.155E+00	3.520E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.750E-01	2.250E-01	7.094E-01	2.134E+00	2.000E-01	1.000E+02	1.000E+00	4.809E-03
2.500E-01	3.500E-01	7.347E-01	2.128E+00	5.000E-01	1.000E+02	1.000E+00	3.985E-03
3.500E-01	4.500E-01	7.994E-01	1.959E+00	8.000E-01	1.000E+02	1.000E+00	3.156E-03
4.500E-01	5.500E-01	8.590E-01	2.051E+00	1.200E+00	1.000E+02	1.000E+00	3.012E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.750E-01	2.250E-01	.000E+00	3.073E+01	5.000E-01	1.000E+00	5.759E+00	1.000E+00
2.500E-01	3.500E-01	.000E+00	3.063E+01	1.250E+00	1.000E+00	5.758E+00	1.000E+00
3.500E-01	4.500E-01	.000E+00	2.821E+01	2.000E+00	1.000E+00	5.759E+00	1.000E+00
4.500E-01	5.500E-01	.000E+00	2.952E+01	3.000E+00	1.000E+00	5.758E+00	1.000E+00

ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER						
1. 750E-01	2. 250E-01	1. 488E+00	8. 300E+00	5. 000E-01	1. 000E+00	1. 556E+00	3. 762E-01
2. 500E-01	3. 500E-01	1. 830E+00	8. 273E+00	1. 250E+00	1. 000E+00	1. 555E+00	3. 192E-01
3. 500E-01	4. 500E-01	1. 658E+00	7. 620E+00	2. 000E+00	1. 000E+00	1. 556E+00	2. 902E-01
4. 500E-01	5. 500E-01	2. 324E+00	7. 977E+00	3. 000E+00	1. 000E+00	1. 556E+00	3. 466E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER						
1. 750E-01	2. 250E-01	1. 183E+00	6. 160E+00	5. 000E-01	1. 000E+00	1. 155E+00	1. 175E-01
2. 500E-01	3. 500E-01	1. 330E+00	6. 142E+00	1. 250E+00	1. 000E+00	1. 155E+00	1. 299E-01
3. 500E-01	4. 500E-01	1. 319E+00	5. 656E+00	2. 000E+00	1. 000E+00	1. 155E+00	9. 259E-02
4. 500E-01	5. 500E-01	1. 474E+00	5. 922E+00	3. 000E+00	1. 000E+00	1. 155E+00	1. 171E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER						
1. 750E-01	2. 250E-01	1. 151E+00	5. 335E+00	5. 000E-01	1. 000E+00	1. 000E+00	6. 149E-02
2. 500E-01	3. 500E-01	1. 227E+00	5. 320E+00	1. 250E+00	1. 000E+00	1. 000E+00	6. 959E-02
3. 500E-01	4. 500E-01	1. 393E+00	4. 897E+00	2. 000E+00	1. 000E+00	1. 000E+00	4. 966E-02
4. 500E-01	5. 500E-01	1. 571E+00	5. 127E+00	3. 000E+00	1. 000E+00	1. 000E+00	6. 152E-02
ENERGY		BLDUP	M. F. P.	PB long-	D. long	1./SIN	SIGMA
LOWER	UPPER						
1. 750E-01	2. 250E-01	. 000E+00	3. 073E+01	5. 000E-01	2. 000E+00	5. 759E+00	1. 000E+00
2. 500E-01	3. 500E-01	. 000E+00	3. 063E+01	1. 250E+00	2. 000E+00	5. 758E+00	1. 000E+00
3. 500E-01	4. 500E-01	. 000E+00	2. 821E+01	2. 000E+00	2. 000E+00	5. 759E+00	1. 000E+00
4. 500E-01	5. 500E-01	. 000E+00	2. 952E+01	3. 000E+00	2. 000E+00	5. 758E+00	1. 000E+00
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER						
1. 750E-01	2. 250E-01	1. 489E+00	8. 300E+00	5. 000E-01	2. 000E+00	1. 556E+00	3. 274E-01
2. 500E-01	3. 500E-01	1. 651E+00	8. 273E+00	1. 250E+00	2. 000E+00	1. 555E+00	3. 026E-01
3. 500E-01	4. 500E-01	1. 582E+00	7. 620E+00	2. 000E+00	2. 000E+00	1. 556E+00	2. 414E-01
4. 500E-01	5. 500E-01	1. 960E+00	7. 977E+00	3. 000E+00	2. 000E+00	1. 556E+00	2. 669E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER						
1. 750E-01	2. 250E-01	1. 205E+00	6. 160E+00	5. 000E-01	2. 000E+00	1. 155E+00	9. 447E-02
2. 500E-01	3. 500E-01	1. 313E+00	6. 142E+00	1. 250E+00	2. 000E+00	1. 155E+00	9. 245E-02
3. 500E-01	4. 500E-01	1. 392E+00	5. 656E+00	2. 000E+00	2. 000E+00	1. 155E+00	6. 592E-02
4. 500E-01	5. 500E-01	1. 573E+00	5. 922E+00	3. 000E+00	2. 000E+00	1. 155E+00	8. 442E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER						
1. 750E-01	2. 250E-01	1. 114E+00	5. 335E+00	5. 000E-01	2. 000E+00	1. 000E+00	4. 421E-02
2. 500E-01	3. 500E-01	1. 245E+00	5. 320E+00	1. 250E+00	2. 000E+00	1. 000E+00	5. 247E-02
3. 500E-01	4. 500E-01	1. 387E+00	4. 897E+00	2. 000E+00	2. 000E+00	1. 000E+00	4. 035E-02
4. 500E-01	5. 500E-01	1. 556E+00	5. 127E+00	3. 000E+00	2. 000E+00	1. 000E+00	4. 535E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER						
1. 750E-01	2. 250E-01	. 000E+00	3. 073E+01	5. 000E-01	4. 000E+00	5. 759E+00	1. 000E+00
2. 500E-01	3. 500E-01	. 000E+00	3. 063E+01	1. 250E+00	4. 000E+00	5. 758E+00	1. 000E+00
3. 500E-01	4. 500E-01	. 000E+00	2. 821E+01	2. 000E+00	4. 000E+00	5. 759E+00	1. 000E+00
4. 500E-01	5. 500E-01	. 000E+00	2. 952E+01	3. 000E+00	4. 000E+00	5. 758E+00	1. 000E+00
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER						
1. 750E-01	2. 250E-01	. 000E+00	3. 073E+01	5. 000E-01	6. 000E+00	5. 759E+00	1. 000E+00
2. 500E-01	3. 500E-01	. 000E+00	3. 063E+01	1. 250E+00	6. 000E+00	5. 758E+00	1. 000E+00
3. 500E-01	4. 500E-01	. 000E+00	2. 821E+01	2. 000E+00	6. 000E+00	5. 759E+00	1. 000E+00
4. 500E-01	5. 500E-01	. 000E+00	2. 952E+01	3. 000E+00	6. 000E+00	5. 758E+00	1. 000E+00
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER						
1. 750E-01	2. 250E-01	. 000E+00	3. 073E+01	5. 000E-01	6. 000E+00	5. 759E+00	1. 000E+00
2. 500E-01	3. 500E-01	. 000E+00	3. 063E+01	1. 250E+00	6. 000E+00	5. 758E+00	1. 000E+00
3. 500E-01	4. 500E-01	. 000E+00	2. 821E+01	2. 000E+00	6. 000E+00	5. 759E+00	1. 000E+00
4. 500E-01	5. 500E-01	. 000E+00	2. 952E+01	3. 000E+00	6. 000E+00	5. 758E+00	1. 000E+00



1.750E-01	2.250E-01	.000E+00	3.073E+01	5.000E-01	8.000E+00	5.759E+00	1.000E+00
2.500E-01	3.500E-01	.000E+00	3.063E+01	1.250E+00	8.000E+00	5.758E+00	1.000E+00
3.500E-01	4.500E-01	.000E+00	2.821E+01	2.000E+00	8.000E+00	5.759E+00	1.000E+00
4.500E-01	5.500E-01	.000E+00	2.952E+01	3.000E+00	8.000E+00	5.758E+00	1.000E+00
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.750E-01	2.250E-01	.000E+00	3.073E+01	5.000E-01	1.000E+01	5.759E+00	1.000E+00
2.500E-01	3.500E-01	.000E+00	3.063E+01	1.250E+00	1.000E+01	5.758E+00	1.000E+00
3.500E-01	4.500E-01	.000E+00	2.821E+01	2.000E+00	1.000E+01	5.759E+00	1.000E+00
4.500E-01	5.500E-01	.000E+00	2.952E+01	3.000E+00	1.000E+01	5.758E+00	1.000E+00
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.750E-01	2.250E-01	1.280E+00	8.300E+00	5.000E-01	1.000E+01	1.556E+00	1.579E-01
2.500E-01	3.500E-01	1.567E+00	8.273E+00	1.250E+00	1.000E+01	1.555E+00	1.534E-01
3.500E-01	4.500E-01	1.627E+00	7.620E+00	2.000E+00	1.000E+01	1.556E+00	1.226E-01
4.500E-01	5.500E-01	2.054E+00	7.977E+00	3.000E+00	1.000E+01	1.556E+00	1.197E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.750E-01	2.250E-01	1.183E+00	6.160E+00	5.000E-01	1.000E+01	1.155E+00	4.514E-02
2.500E-01	3.500E-01	1.294E+00	6.142E+00	1.250E+00	1.000E+01	1.155E+00	4.372E-02
3.500E-01	4.500E-01	1.455E+00	5.656E+00	2.000E+00	1.000E+01	1.155E+00	3.337E-02
4.500E-01	5.500E-01	1.632E+00	5.922E+00	3.000E+00	1.000E+01	1.155E+00	3.707E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.750E-01	2.250E-01	1.118E+00	5.335E+00	5.000E-01	1.000E+01	1.000E+00	2.277E-02
2.500E-01	3.500E-01	1.217E+00	5.320E+00	1.250E+00	1.000E+01	1.000E+00	2.449E-02
3.500E-01	4.500E-01	1.366E+00	4.897E+00	2.000E+00	1.000E+01	1.000E+00	2.001E-02
4.500E-01	5.500E-01	1.532E+00	5.127E+00	3.000E+00	1.000E+01	1.000E+00	2.574E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.750E-01	2.250E-01	.000E+00	3.073E+01	5.000E-01	2.000E+01	5.759E+00	1.000E+00
2.500E-01	3.500E-01	.000E+00	3.063E+01	1.250E+00	2.000E+01	5.758E+00	1.000E+00
3.500E-01	4.500E-01	.000E+00	2.821E+01	2.000E+00	2.000E+01	5.759E+00	1.000E+00
4.500E-01	5.500E-01	.000E+00	2.952E+01	3.000E+00	2.000E+01	5.758E+00	1.000E+00
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.750E-01	2.250E-01	1.342E+00	8.300E+00	5.000E-01	2.000E+01	1.556E+00	1.091E-01
2.500E-01	3.500E-01	1.560E+00	8.273E+00	1.250E+00	2.000E+01	1.555E+00	1.216E-01
3.500E-01	4.500E-01	1.724E+00	7.620E+00	2.000E+00	2.000E+01	1.556E+00	8.419E-02
4.500E-01	5.500E-01	2.336E+00	7.977E+00	3.000E+00	2.000E+01	1.556E+00	9.462E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.750E-01	2.250E-01	1.197E+00	6.160E+00	5.000E-01	2.000E+01	1.155E+00	3.173E-02
2.500E-01	3.500E-01	1.344E+00	6.142E+00	1.250E+00	2.000E+01	1.155E+00	3.128E-02
3.500E-01	4.500E-01	1.480E+00	5.656E+00	2.000E+00	2.000E+01	1.155E+00	2.339E-02
4.500E-01	5.500E-01	1.662E+00	5.922E+00	3.000E+00	2.000E+01	1.155E+00	2.714E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.750E-01	2.250E-01	1.090E+00	5.335E+00	5.000E-01	2.000E+01	1.000E+00	1.631E-02
2.500E-01	3.500E-01	1.174E+00	5.320E+00	1.250E+00	2.000E+01	1.000E+00	1.830E-02
3.500E-01	4.500E-01	1.335E+00	4.897E+00	2.000E+00	2.000E+01	1.000E+00	1.474E-02
4.500E-01	5.500E-01	1.491E+00	5.127E+00	3.000E+00	2.000E+01	1.000E+00	1.867E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.750E-01	2.250E-01	.000E+00	3.073E+01	5.000E-01	1.000E+02	5.759E+00	1.000E+00
2.500E-01	3.500E-01	.000E+00	3.063E+01	1.250E+00	1.000E+02	5.758E+00	1.000E+00

3.500E-01	4.500E-01	.000E+00	2.821E+01	2.000E+00	1.000E+02	5.759E+00	1.000E+00
4.500E-01	5.500E-01	.000E+00	2.952E+01	3.000E+00	1.000E+02	5.758E+00	1.000E+00
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.750E-01	2.250E-01	8.184E+00	8.300E+00	5.000E-01	1.000E+02	1.556E+00	2.479E-02
2.500E-01	3.500E-01	8.710E+00	8.273E+00	1.250E+00	1.000E+02	1.555E+00	2.562E-02
3.500E-01	4.500E-01	7.980E+00	7.620E+00	2.000E+00	1.000E+02	1.556E+00	2.108E-02
4.500E-01	5.500E-01	9.698E+00	7.977E+00	3.000E+00	1.000E+02	1.556E+00	2.179E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.750E-01	2.250E-01	1.468E+00	6.160E+00	5.000E-01	1.000E+02	1.155E+00	1.868E-02
2.500E-01	3.500E-01	1.593E+00	6.142E+00	1.250E+00	1.000E+02	1.155E+00	1.597E-02
3.500E-01	4.500E-01	1.732E+00	5.656E+00	2.000E+00	1.000E+02	1.155E+00	1.094E-02
4.500E-01	5.500E-01	2.023E+00	5.922E+00	3.000E+00	1.000E+02	1.155E+00	1.428E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
1.750E-01	2.250E-01	5.561E-01	5.335E+00	5.000E-01	1.000E+02	1.000E+00	1.619E-02
2.500E-01	3.500E-01	6.098E-01	5.320E+00	1.250E+00	1.000E+02	1.000E+00	1.879E-02
3.500E-01	4.500E-01	7.182E-01	4.897E+00	2.000E+00	1.000E+02	1.000E+00	9.393E-03
4.500E-01	5.500E-01	8.191E-01	5.127E+00	3.000E+00	1.000E+02	1.000E+00	1.221E-02

表A-5-(1) EGS4により求めたペンシルビーム状線源の再生係数 (90度)  
(蛍光X線を考慮せず)

①		②	③	④	⑤	⑥	⑦
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.020E+00	8.420E-01	1.000E-02	1.000E+00	1.000E+00	2.315E-03
9.000E-02	1.100E-01	1.019E+00	1.217E+00	2.000E-02	1.000E+00	1.000E+00	3.371E-03
1.250E-01	1.750E-01	1.021E+00	1.089E+00	5.000E-02	1.000E+00	1.000E+00	8.558E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.021E+00	8.420E-01	1.000E-02	2.000E+00	1.000E+00	2.314E-03
9.000E-02	1.100E-01	1.021E+00	1.217E+00	2.000E-02	2.000E+00	1.000E+00	3.369E-03
1.250E-01	1.750E-01	1.021E+00	1.089E+00	5.000E-02	2.000E+00	1.000E+00	8.556E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.028E+00	8.420E-01	1.000E-02	1.000E+01	1.000E+00	2.306E-03
9.000E-02	1.100E-01	1.026E+00	1.217E+00	2.000E-02	1.000E+01	1.000E+00	3.360E-03
1.250E-01	1.750E-01	1.026E+00	1.089E+00	5.000E-02	1.000E+01	1.000E+00	8.537E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.029E+00	8.420E-01	1.000E-02	2.000E+01	1.000E+00	2.305E-03
9.000E-02	1.100E-01	1.028E+00	1.217E+00	2.000E-02	2.000E+01	1.000E+00	3.356E-03
1.250E-01	1.750E-01	1.026E+00	1.089E+00	5.000E-02	2.000E+01	1.000E+00	8.535E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.026E+00	8.420E-01	1.000E-02	1.000E+02	1.000E+00	2.308E-03
9.000E-02	1.100E-01	1.035E+00	1.217E+00	2.000E-02	1.000E+02	1.000E+00	3.345E-03
1.250E-01	1.750E-01	1.024E+00	1.089E+00	5.000E-02	1.000E+02	1.000E+00	8.545E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.039E+00	1.684E+00	2.000E-02	1.000E+00	1.000E+00	3.494E-03
9.000E-02	1.100E-01	1.031E+00	2.433E+00	4.000E-02	1.000E+00	1.000E+00	6.160E-03
1.250E-01	1.750E-01	1.022E+00	2.177E+00	1.000E-01	1.000E+00	1.000E+00	1.342E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.040E+00	1.684E+00	2.000E-02	2.000E+00	1.000E+00	3.493E-03
9.000E-02	1.100E-01	1.031E+00	2.433E+00	4.000E-02	2.000E+00	1.000E+00	6.157E-03
1.250E-01	1.750E-01	1.022E+00	2.177E+00	1.000E-01	2.000E+00	1.000E+00	1.342E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.041E+00	1.684E+00	2.000E-02	1.000E+01	1.000E+00	3.491E-03
9.000E-02	1.100E-01	1.036E+00	2.433E+00	4.000E-02	1.000E+01	1.000E+00	6.144E-03
1.250E-01	1.750E-01	1.021E+00	2.177E+00	1.000E-01	1.000E+01	1.000E+00	1.342E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.042E+00	1.684E+00	2.000E-02	2.000E+01	1.000E+00	3.490E-03
9.000E-02	1.100E-01	1.038E+00	2.433E+00	4.000E-02	2.000E+01	1.000E+00	6.136E-03
1.250E-01	1.750E-01	1.022E+00	2.177E+00	1.000E-01	2.000E+01	1.000E+00	1.342E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.047E+00	1.684E+00	2.000E-02	1.000E+02	1.000E+00	3.482E-03
9.000E-02	1.100E-01	1.049E+00	2.433E+00	4.000E-02	1.000E+02	1.000E+00	6.105E-03
1.250E-01	1.750E-01	1.024E+00	2.177E+00	1.000E-01	1.000E+02	1.000E+00	1.341E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.093E+00	4.210E+00	5.000E-02	1.000E+00	1.000E+00	1.204E-02

9.000E-02	1.100E-01	1.040E+00	6.083E+00	1.000E-01	1.000E+00	1.000E+00	3.327E-02
1.250E-01	1.750E-01	1.013E+00	5.443E+00	2.500E-01	1.000E+00	1.000E+00	5.119E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.094E+00	4.210E+00	5.000E-02	2.000E+00	1.000E+00	1.204E-02
9.000E-02	1.100E-01	1.042E+00	6.083E+00	1.000E-01	2.000E+00	1.000E+00	3.324E-02
1.250E-01	1.750E-01	1.015E+00	5.443E+00	2.500E-01	2.000E+00	1.000E+00	5.114E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.094E+00	4.210E+00	5.000E-02	1.000E+01	1.000E+00	1.204E-02
9.000E-02	1.100E-01	1.052E+00	6.083E+00	1.000E-01	1.000E+01	1.000E+00	3.781E-02
1.250E-01	1.750E-01	1.016E+00	5.443E+00	2.500E-01	1.000E+01	1.000E+00	5.113E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.094E+00	4.210E+00	5.000E-02	2.000E+01	1.000E+00	1.204E-02
9.000E-02	1.100E-01	1.063E+00	6.083E+00	1.000E-01	2.000E+01	1.000E+00	3.762E-02
1.250E-01	1.750E-01	1.016E+00	5.443E+00	2.500E-01	2.000E+01	1.000E+00	5.113E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.095E+00	4.210E+00	5.000E-02	1.000E+02	1.000E+00	1.203E-02
9.000E-02	1.100E-01	1.130E+00	6.083E+00	1.000E-01	1.000E+02	1.000E+00	3.648E-02
1.250E-01	1.750E-01	1.016E+00	5.443E+00	2.500E-01	1.000E+02	1.000E+00	5.113E-02

表A-5-(2) EGS 4により求めたペンシルビーム状線源の再生係数 (60度)  
 (蛍光X線を考慮せず)

①		②	③	④	⑤	⑥	⑦
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.021E+00	9.723E-01	1.000E-02	1.000E+00	1.155E+00	2.472E-03
9.000E-02	1.100E-01	1.019E+00	1.405E+00	2.000E-02	1.000E+00	1.155E+00	3.706E-03
1.250E-01	1.750E-01	1.018E+00	1.257E+00	5.000E-02	1.000E+00	1.155E+00	7.421E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.022E+00	9.723E-01	1.000E-02	2.000E+00	1.155E+00	2.471E-03
9.000E-02	1.100E-01	1.021E+00	1.405E+00	2.000E-02	2.000E+00	1.155E+00	3.704E-03
1.250E-01	1.750E-01	1.019E+00	1.257E+00	5.000E-02	2.000E+00	1.155E+00	7.419E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.023E+00	9.723E-01	1.000E-02	1.000E+01	1.155E+00	2.469E-03
9.000E-02	1.100E-01	1.023E+00	1.405E+00	2.000E-02	1.000E+01	1.155E+00	3.700E-03
1.250E-01	1.750E-01	1.020E+00	1.257E+00	5.000E-02	1.000E+01	1.155E+00	7.416E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.025E+00	9.723E-01	1.000E-02	2.000E+01	1.155E+00	2.467E-03
9.000E-02	1.100E-01	1.025E+00	1.405E+00	2.000E-02	2.000E+01	1.155E+00	3.696E-03
1.250E-01	1.750E-01	1.020E+00	1.257E+00	5.000E-02	2.000E+01	1.155E+00	7.414E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.026E+00	9.723E-01	1.000E-02	1.000E+02	1.155E+00	2.465E-03
9.000E-02	1.100E-01	1.036E+00	1.405E+00	2.000E-02	1.000E+02	1.155E+00	3.676E-03
1.250E-01	1.750E-01	1.021E+00	1.257E+00	5.000E-02	1.000E+02	1.155E+00	7.525E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.047E+00	1.945E+00	2.000E-02	1.000E+00	1.155E+00	3.968E-03
9.000E-02	1.100E-01	1.030E+00	2.810E+00	4.000E-02	1.000E+00	1.155E+00	7.442E-03
1.250E-01	1.750E-01	1.019E+00	2.514E+00	1.000E-01	1.000E+00	1.155E+00	8.441E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.048E+00	1.945E+00	2.000E-02	2.000E+00	1.155E+00	3.967E-03
9.000E-02	1.100E-01	1.031E+00	2.810E+00	4.000E-02	2.000E+00	1.155E+00	7.438E-03
1.250E-01	1.750E-01	1.020E+00	2.514E+00	1.000E-01	2.000E+00	1.155E+00	8.437E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.049E+00	1.945E+00	2.000E-02	1.000E+01	1.155E+00	3.964E-03
9.000E-02	1.100E-01	1.035E+00	2.810E+00	4.000E-02	1.000E+01	1.155E+00	7.426E-03
1.250E-01	1.750E-01	1.021E+00	2.514E+00	1.000E-01	1.000E+01	1.155E+00	8.433E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.051E+00	1.945E+00	2.000E-02	2.000E+01	1.155E+00	3.962E-03
9.000E-02	1.100E-01	1.039E+00	2.810E+00	4.000E-02	2.000E+01	1.155E+00	7.412E-03
1.250E-01	1.750E-01	1.021E+00	2.514E+00	1.000E-01	2.000E+01	1.155E+00	8.431E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.056E+00	1.945E+00	2.000E-02	1.000E+02	1.155E+00	3.952E-03
9.000E-02	1.100E-01	1.059E+00	2.810E+00	4.000E-02	1.000E+02	1.155E+00	7.341E-03
1.250E-01	1.750E-01	1.023E+00	2.514E+00	1.000E-01	1.000E+02	1.155E+00	8.425E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.107E+00	4.861E+00	5.000E-02	1.000E+00	1.155E+00	1.660E-02

9.000E-02	1.100E-01	1.085E+00	7.024E+00	1.000E-01	1.000E+00	1.155E+00	5.958E-02
1.250E-01	1.750E-01	1.035E+00	6.286E+00	2.500E-01	1.000E+00	1.155E+00	3.027E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.107E+00	4.861E+00	5.000E-02	2.000E+00	1.155E+00	1.659E-02
9.000E-02	1.100E-01	1.086E+00	7.024E+00	1.000E-01	2.000E+00	1.155E+00	5.955E-02
1.250E-01	1.750E-01	1.035E+00	6.286E+00	2.500E-01	2.000E+00	1.155E+00	3.027E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.108E+00	4.861E+00	5.000E-02	1.000E+01	1.155E+00	1.659E-02
9.000E-02	1.100E-01	1.109E+00	7.024E+00	1.000E-01	1.000E+01	1.155E+00	5.900E-02
1.250E-01	1.750E-01	1.037E+00	6.286E+00	2.500E-01	1.000E+01	1.155E+00	3.024E-02
ENERGY		BLDUP	M. F. P.	PR long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.109E+00	4.861E+00	5.000E-02	2.000E+01	1.155E+00	1.658E-02
9.000E-02	1.100E-01	1.144E+00	7.024E+00	1.000E-01	2.000E+01	1.155E+00	5.808E-02
1.250E-01	1.750E-01	1.037E+00	6.286E+00	2.500E-01	2.000E+01	1.155E+00	3.023E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.111E+00	4.861E+00	5.000E-02	1.000E+02	1.155E+00	1.657E-02
9.000E-02	1.100E-01	1.310E+00	7.024E+00	1.000E-01	1.000E+02	1.155E+00	5.429E-02
1.250E-01	1.750E-01	1.038E+00	6.286E+00	2.500E-01	1.000E+02	1.155E+00	3.023E-02

表A-5-(3) EGS4により求めたペンシルビーム状線源の再生係数 (40度)  
(蛍光X線を考慮せず)

①		②	③	④	⑤	⑥	⑦
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.028E+00	1.310E+00	1.000E-02	1.000E+00	1.556E+00	2.923E-03
9.000E-02	1.100E-01	1.025E+00	1.893E+00	2.000E-02	1.000E+00	1.556E+00	4.724E-03
1.250E-01	1.750E-01	1.018E+00	1.694E+00	5.000E-02	1.000E+00	1.556E+00	1.087E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.029E+00	1.310E+00	1.000E-02	2.000E+00	1.556E+00	2.922E-03
9.000E-02	1.100E-01	1.027E+00	1.893E+00	2.000E-02	2.000E+00	1.556E+00	4.720E-03
1.250E-01	1.750E-01	1.019E+00	1.694E+00	5.000E-02	2.000E+00	1.556E+00	1.086E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.035E+00	1.310E+00	1.000E-02	1.000E+01	1.556E+00	2.914E-03
9.000E-02	1.100E-01	1.032E+00	1.893E+00	2.000E-02	1.000E+01	1.556E+00	4.710E-03
1.250E-01	1.750E-01	1.022E+00	1.694E+00	5.000E-02	1.000E+01	1.556E+00	1.085E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.036E+00	1.310E+00	1.000E-02	2.000E+01	1.556E+00	2.912E-03
9.000E-02	1.100E-01	1.034E+00	1.893E+00	2.000E-02	2.000E+01	1.556E+00	4.704E-03
1.250E-01	1.750E-01	1.022E+00	1.694E+00	5.000E-02	2.000E+01	1.556E+00	1.085E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.043E+00	1.310E+00	1.000E-02	1.000E+02	1.556E+00	2.901E-03
9.000E-02	1.100E-01	1.049E+00	1.893E+00	2.000E-02	1.000E+02	1.556E+00	4.672E-03
1.250E-01	1.750E-01	1.025E+00	1.694E+00	5.000E-02	1.000E+02	1.556E+00	1.083E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.063E+00	2.620E+00	2.000E-02	1.000E+00	1.556E+00	5.535E-03
9.000E-02	1.100E-01	1.059E+00	3.785E+00	4.000E-02	1.000E+00	1.556E+00	1.198E-02
1.250E-01	1.750E-01	1.013E+00	3.387E+00	1.000E-01	1.000E+00	1.556E+00	1.099E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.064E+00	2.620E+00	2.000E-02	2.000E+00	1.556E+00	5.532E-03
9.000E-02	1.100E-01	1.061E+00	3.785E+00	4.000E-02	2.000E+00	1.556E+00	1.196E-02
1.250E-01	1.750E-01	1.015E+00	3.387E+00	1.000E-01	2.000E+00	1.556E+00	1.098E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.065E+00	2.620E+00	2.000E-02	1.000E+01	1.556E+00	5.529E-03
9.000E-02	1.100E-01	1.066E+00	3.785E+00	4.000E-02	1.000E+01	1.556E+00	1.194E-02
1.250E-01	1.750E-01	1.016E+00	3.387E+00	1.000E-01	1.000E+01	1.556E+00	1.097E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.066E+00	2.620E+00	2.000E-02	2.000E+01	1.556E+00	5.526E-03
9.000E-02	1.100E-01	1.072E+00	3.785E+00	4.000E-02	2.000E+01	1.556E+00	1.190E-02
1.250E-01	1.750E-01	1.017E+00	3.387E+00	1.000E-01	2.000E+01	1.556E+00	1.097E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.072E+00	2.620E+00	2.000E-02	1.000E+02	1.556E+00	5.509E-03
9.000E-02	1.100E-01	1.118E+00	3.785E+00	4.000E-02	1.000E+02	1.556E+00	1.166E-02
1.250E-01	1.750E-01	1.020E+00	3.387E+00	1.000E-01	1.000E+02	1.556E+00	1.095E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.159E+00	6.550E+00	5.000E-02	1.000E+00	1.556E+00	3.781E-02

9.000E-02	1.100E-01	1.911E+00	9.463E+00	1.000E-01	1.000E+00	1.556E+00	1.295E-01
1.250E-01	1.750E-01	8.606E-01	8.468E+00	2.500E-01	1.000E+00	1.556E+00	9.901E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.160E+00	6.550E+00	5.000E-02	2.000E+00	1.556E+00	3.779E-02
9.000E-02	1.100E-01	1.950E+00	9.463E+00	1.000E-01	2.000E+00	1.556E+00	1.282E-01
1.250E-01	1.750E-01	8.606E-01	8.468E+00	2.500E-01	2.000E+00	1.556E+00	9.901E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.161E+00	6.550E+00	5.000E-02	1.000E+01	1.556E+00	3.777E-02
9.000E-02	1.100E-01	2.103E+00	9.463E+00	1.000E-01	1.000E+01	1.556E+00	1.235E-01
1.250E-01	1.750E-01	8.606E-01	8.468E+00	2.500E-01	1.000E+01	1.556E+00	9.901E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.162E+00	6.550E+00	5.000E-02	2.000E+01	1.556E+00	3.775E-02
9.000E-02	1.100E-01	2.329E+00	9.463E+00	1.000E-01	2.000E+01	1.556E+00	1.213E-01
1.250E-01	1.750E-01	8.606E-01	8.468E+00	2.500E-01	2.000E+01	1.556E+00	9.901E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.176E+00	6.550E+00	5.000E-02	1.000E+02	1.556E+00	3.754E-02
9.000E-02	1.100E-01	4.271E+00	9.463E+00	1.000E-01	1.000E+02	1.556E+00	1.020E-01
1.250E-01	1.750E-01	8.669E-01	8.468E+00	2.500E-01	1.000E+02	1.556E+00	9.865E-02



表A-5-(4) EGS4により求めたペンシルビーム状線源の再生係数 (10度)  
(蛍光X線を考慮せず)

①		②	③	④	⑤	⑥	⑦
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.009E+00	9.701E-01	2.000E-03	1.000E+00	5.760E+00	2.549E-03
9.000E-02	1.100E-01	1.005E+00	1.402E+00	4.000E-03	1.000E+00	5.760E+00	3.805E-03
1.250E-01	1.750E-01	9.941E-01	1.254E+00	1.000E-02	1.000E+00	5.760E+00	9.258E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.012E+00	9.701E-01	2.000E-03	2.000E+00	5.760E+00	2.546E-03
9.000E-02	1.100E-01	1.009E+00	1.402E+00	4.000E-03	2.000E+00	5.760E+00	3.797E-03
1.250E-01	1.750E-01	9.980E-01	1.254E+00	1.000E-02	2.000E+00	5.760E+00	9.675E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.018E+00	9.701E-01	2.000E-03	1.000E+01	5.760E+00	2.538E-03
9.000E-02	1.100E-01	1.012E+00	1.402E+00	4.000E-03	1.000E+01	5.760E+00	3.791E-03
1.250E-01	1.750E-01	1.002E+00	1.254E+00	1.000E-02	1.000E+01	5.760E+00	9.657E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.019E+00	9.701E-01	2.000E-03	2.000E+01	5.760E+00	2.537E-03
9.000E-02	1.100E-01	1.013E+00	1.402E+00	4.000E-03	2.000E+01	5.760E+00	3.788E-03
1.250E-01	1.750E-01	1.003E+00	1.254E+00	1.000E-02	2.000E+01	5.760E+00	9.653E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.026E+00	9.701E-01	2.000E-03	1.000E+02	5.760E+00	2.529E-03
9.000E-02	1.100E-01	1.022E+00	1.402E+00	4.000E-03	1.000E+02	5.760E+00	3.772E-03
1.250E-01	1.750E-01	1.009E+00	1.254E+00	1.000E-02	1.000E+02	5.760E+00	9.623E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.036E+00	1.940E+00	4.000E-03	1.000E+00	5.760E+00	4.086E-03
9.000E-02	1.100E-01	1.017E+00	2.803E+00	8.000E-03	1.000E+00	5.760E+00	7.133E-03
1.250E-01	1.750E-01	1.008E+00	2.509E+00	2.000E-02	1.000E+00	5.760E+00	1.363E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.042E+00	1.940E+00	4.000E-03	2.000E+00	5.760E+00	4.075E-03
9.000E-02	1.100E-01	1.032E+00	2.803E+00	8.000E-03	2.000E+00	5.760E+00	7.565E-03
1.250E-01	1.750E-01	1.015E+00	2.509E+00	2.000E-02	2.000E+00	5.760E+00	1.592E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.044E+00	1.940E+00	4.000E-03	1.000E+01	5.760E+00	4.071E-03
9.000E-02	1.100E-01	1.038E+00	2.803E+00	8.000E-03	1.000E+01	5.760E+00	7.543E-03
1.250E-01	1.750E-01	1.017E+00	2.509E+00	2.000E-02	1.000E+01	5.760E+00	1.595E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.046E+00	1.940E+00	4.000E-03	2.000E+01	5.760E+00	4.068E-03
9.000E-02	1.100E-01	1.042E+00	2.803E+00	8.000E-03	2.000E+01	5.760E+00	7.528E-03
1.250E-01	1.750E-01	1.018E+00	2.509E+00	2.000E-02	2.000E+01	5.760E+00	1.606E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.057E+00	1.940E+00	4.000E-03	1.000E+02	5.760E+00	4.045E-03
9.000E-02	1.100E-01	1.066E+00	2.803E+00	8.000E-03	1.000E+02	5.760E+00	7.443E-03
1.250E-01	1.750E-01	1.030E+00	2.509E+00	2.000E-02	1.000E+02	5.760E+00	1.597E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.118E+00	4.850E+00	1.000E-02	1.000E+00	5.760E+00	1.686E-02

9.000E-02	1.100E-01	1.246E+00	7.008E+00	2.000E-02	1.000E+00	5.760E+00	5.636E-02
1.250E-01	1.750E-01	1.238E+00	6.271E+00	5.000E-02	1.000E+00	5.760E+00	3.645E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.154E+00	4.850E+00	1.000E-02	2.000E+00	5.760E+00	1.659E-02
9.000E-02	1.100E-01	1.785E+00	7.008E+00	2.000E-02	2.000E+00	5.760E+00	4.709E-02
1.250E-01	1.750E-01	1.273E+00	6.271E+00	5.000E-02	2.000E+00	5.760E+00	3.594E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.161E+00	4.850E+00	1.000E-02	1.000E+01	5.760E+00	1.654E-02
9.000E-02	1.100E-01	1.885E+00	7.008E+00	2.000E-02	1.000E+01	5.760E+00	4.582E-02
1.250E-01	1.750E-01	1.282E+00	6.271E+00	5.000E-02	1.000E+01	5.760E+00	3.581E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.169E+00	4.850E+00	1.000E-02	2.000E+01	5.760E+00	1.649E-02
9.000E-02	1.100E-01	1.991E+00	7.008E+00	2.000E-02	2.000E+01	5.760E+00	4.459E-02
1.250E-01	1.750E-01	1.292E+00	6.271E+00	5.000E-02	2.000E+01	5.760E+00	3.567E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.237E+00	4.850E+00	1.000E-02	1.000E+02	5.760E+00	1.602E-02
9.000E-02	1.100E-01	2.674E+00	7.008E+00	2.000E-02	1.000E+02	5.760E+00	3.847E-02
1.250E-01	1.750E-01	1.378E+00	6.271E+00	5.000E-02	1.000E+02	5.760E+00	3.455E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.301E+00	7.275E+00	1.500E-02	1.000E+00	5.760E+00	3.834E-02
9.000E-02	1.100E-01	4.198E+00	1.051E+01	3.000E-02	1.000E+00	5.760E+00	1.699E-01
1.250E-01	1.750E-01	3.122E+00	9.407E+00	7.500E-02	1.000E+00	5.760E+00	1.082E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.461E+00	7.275E+00	1.500E-02	2.000E+00	5.760E+00	4.957E-02
9.000E-02	1.100E-01	1.510E+01	1.051E+01	3.000E-02	2.000E+00	5.760E+00	9.336E-02
1.250E-01	1.750E-01	3.356E+00	9.407E+00	7.500E-02	2.000E+00	5.760E+00	1.085E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.489E+00	7.275E+00	1.500E-02	1.000E+01	5.760E+00	4.912E-02
9.000E-02	1.100E-01	1.666E+01	1.051E+01	3.000E-02	1.000E+01	5.760E+00	8.887E-02
1.250E-01	1.750E-01	3.420E+00	9.407E+00	7.500E-02	1.000E+01	5.760E+00	1.075E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.524E+00	7.275E+00	1.500E-02	2.000E+01	5.760E+00	4.854E-02
9.000E-02	1.100E-01	1.893E+01	1.051E+01	3.000E-02	2.000E+01	5.760E+00	8.338E-02
1.250E-01	1.750E-01	3.491E+00	9.407E+00	7.500E-02	2.000E+01	5.760E+00	1.064E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.881E+00	7.275E+00	1.500E-02	1.000E+02	5.760E+00	4.369E-02
9.000E-02	1.100E-01	3.317E+01	1.051E+01	3.000E-02	1.000E+02	5.760E+00	6.300E-02
1.250E-01	1.750E-01	4.038E+00	9.407E+00	7.500E-02	1.000E+02	5.760E+00	9.896E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	2.212E+00	9.701E+00	2.000E-02	1.000E+00	5.760E+00	1.355E-01
9.000E-02	1.100E-01	5.588E+01	1.402E+01	4.000E-02	1.000E+00	5.760E+00	2.799E-01
1.250E-01	1.750E-01	1.053E+00	1.254E+01	1.000E-01	1.000E+00	5.760E+00	5.764E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	2.991E+00	9.701E+00	2.000E-02	2.000E+00	5.760E+00	1.165E-01
9.000E-02	1.100E-01	2.896E+02	1.402E+01	4.000E-02	2.000E+00	5.760E+00	1.229E-01

1.250E-01	1.750E-01	1.403E+01	1.254E+01	1.000E-01	2.000E+00	5.760E+00	1.964E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	3.085E+00	9.701E+00	2.000E-02	1.000E+01	5.760E+00	1.147E-01
9.000E-02	1.100E-01	3.224E+02	1.402E+01	4.000E-02	1.000E+01	5.760E+00	1.165E-01
1.250E-01	1.750E-01	1.955E+01	1.254E+01	1.000E-01	1.000E+01	5.760E+00	1.913E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	3.238E+00	9.701E+00	2.000E-02	2.000E+01	5.760E+00	1.120E-01
9.000E-02	1.100E-01	3.698E+02	1.402E+01	4.000E-02	2.000E+01	5.760E+00	1.088E-01
1.250E-01	1.750E-01	2.002E+01	1.254E+01	1.000E-01	2.000E+01	5.760E+00	1.927E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	5.139E+00	9.701E+00	2.000E-02	1.000E+02	5.760E+00	8.888E-02
9.000E-02	1.100E-01	6.871E+02	1.402E+01	4.000E-02	1.000E+02	5.760E+00	7.981E-02
1.250E-01	1.750E-01	2.431E+01	1.254E+01	1.000E-01	1.000E+02	5.760E+00	1.864E-01

表A-6 EGS4により求めた点等方線源の再生係数 (蛍光X線を考慮せず)

①		②	③	④	⑤	⑥	⑦
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.537E+00	4.848E+00	1.000E-02	1.000E+00	5.758E+00	5.383E-01
9.000E-02	1.100E-01	4.215E+00	7.005E+00	2.000E-02	1.000E+00	5.758E+00	7.463E-01
1.250E-01	1.750E-01	1.467E+00	6.269E+00	5.000E-02	1.000E+00	5.758E+00	8.491E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.057E+00	1.310E+00	1.000E-02	1.000E+00	1.556E+00	1.770E-02
9.000E-02	1.100E-01	1.054E+00	1.893E+00	2.000E-02	1.000E+00	1.556E+00	2.856E-02
1.250E-01	1.750E-01	1.030E+00	1.694E+00	5.000E-02	1.000E+00	1.556E+00	2.186E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.044E+00	9.721E-01	1.000E-02	1.000E+00	1.154E+00	9.598E-03
9.000E-02	1.100E-01	1.025E+00	1.405E+00	2.000E-02	1.000E+00	1.154E+00	1.451E-02
1.250E-01	1.750E-01	1.015E+00	1.257E+00	5.000E-02	1.000E+00	1.154E+00	2.179E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.030E+00	8.420E-01	1.000E-02	1.000E+00	1.000E+00	7.293E-03
9.000E-02	1.100E-01	1.042E+00	1.217E+00	2.000E-02	1.000E+00	1.000E+00	1.056E-02
1.250E-01	1.750E-01	1.032E+00	1.089E+00	5.000E-02	1.000E+00	1.000E+00	2.121E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.109E+00	4.848E+00	1.000E-02	2.000E+00	5.758E+00	5.229E-01
9.000E-02	1.100E-01	3.805E+00	7.005E+00	2.000E-02	2.000E+00	5.758E+00	5.554E-01
1.250E-01	1.750E-01	1.080E+00	6.269E+00	5.000E-02	2.000E+00	5.758E+00	7.445E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.043E+00	1.310E+00	1.000E-02	2.000E+00	1.556E+00	1.260E-02
9.000E-02	1.100E-01	1.053E+00	1.893E+00	2.000E-02	2.000E+00	1.556E+00	2.020E-02
1.250E-01	1.750E-01	1.024E+00	1.694E+00	5.000E-02	2.000E+00	1.556E+00	1.678E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.046E+00	9.721E-01	1.000E-02	2.000E+00	1.154E+00	6.779E-03
9.000E-02	1.100E-01	1.043E+00	1.405E+00	2.000E-02	2.000E+00	1.154E+00	1.017E-02
1.250E-01	1.750E-01	1.017E+00	1.257E+00	5.000E-02	2.000E+00	1.154E+00	1.585E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.027E+00	8.420E-01	1.000E-02	2.000E+00	1.000E+00	5.165E-03
9.000E-02	1.100E-01	1.037E+00	1.217E+00	2.000E-02	2.000E+00	1.000E+00	7.480E-03
1.250E-01	1.750E-01	1.027E+00	1.089E+00	5.000E-02	2.000E+00	1.000E+00	1.634E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.342E+00	4.848E+00	1.000E-02	1.000E+01	5.758E+00	2.126E-01
9.000E-02	1.100E-01	4.299E+00	7.005E+00	2.000E-02	1.000E+01	5.758E+00	3.071E-01
1.250E-01	1.750E-01	1.660E+00	6.269E+00	5.000E-02	1.000E+01	5.758E+00	3.003E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.052E+00	1.310E+00	1.000E-02	1.000E+01	1.556E+00	5.612E-03
9.000E-02	1.100E-01	1.070E+00	1.893E+00	2.000E-02	1.000E+01	1.556E+00	9.990E-03
1.250E-01	1.750E-01	1.040E+00	1.694E+00	5.000E-02	1.000E+01	1.556E+00	1.467E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.037E+00	9.721E-01	1.000E-02	1.000E+01	1.154E+00	3.044E-03
9.000E-02	1.100E-01	1.040E+00	1.405E+00	2.000E-02	1.000E+01	1.154E+00	4.554E-03

1.250E-01	1.750E-01	1.024E+00	1.257E+00	5.000E-02	1.000E+01	1.154E+00	1.051E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.030E+00	8.420E-01	1.000E-02	1.000E+01	1.000E+00	2.306E-03
9.000E-02	1.100E-01	1.034E+00	1.217E+00	2.000E-02	1.000E+01	1.000E+00	3.350E-03
1.250E-01	1.750E-01	1.020E+00	1.089E+00	5.000E-02	1.000E+01	1.000E+00	8.734E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.354E+00	4.848E+00	1.000E-02	2.000E+01	5.758E+00	1.496E-01
9.000E-02	1.100E-01	4.283E+00	7.005E+00	2.000E-02	2.000E+01	5.758E+00	2.176E-01
1.250E-01	1.750E-01	1.844E+00	6.269E+00	5.000E-02	2.000E+01	5.758E+00	2.396E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.064E+00	1.310E+00	1.000E-02	2.000E+01	1.556E+00	3.945E-03
9.000E-02	1.100E-01	1.092E+00	1.893E+00	2.000E-02	2.000E+01	1.556E+00	6.995E-03
1.250E-01	1.750E-01	1.050E+00	1.694E+00	5.000E-02	2.000E+01	1.556E+00	1.045E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.039E+00	9.721E-01	1.000E-02	2.000E+01	1.154E+00	2.151E-03
9.000E-02	1.100E-01	1.046E+00	1.405E+00	2.000E-02	2.000E+01	1.154E+00	3.211E-03
1.250E-01	1.750E-01	1.029E+00	1.257E+00	5.000E-02	2.000E+01	1.154E+00	7.884E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.014E+00	8.420E-01	1.000E-02	2.000E+01	1.000E+00	1.643E-03
9.000E-02	1.100E-01	1.017E+00	1.217E+00	2.000E-02	2.000E+01	1.000E+00	2.388E-03
1.250E-01	1.750E-01	1.006E+00	1.089E+00	5.000E-02	2.000E+01	1.000E+00	6.219E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.721E+00	4.848E+00	1.000E-02	1.000E+02	5.758E+00	5.937E-02
9.000E-02	1.100E-01	5.237E+00	7.005E+00	2.000E-02	1.000E+02	5.758E+00	1.156E-01
1.250E-01	1.750E-01	2.184E+00	6.269E+00	5.000E-02	1.000E+02	5.758E+00	1.181E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.434E+00	1.310E+00	1.000E-02	1.000E+02	1.556E+00	1.520E-03
9.000E-02	1.100E-01	1.593E+00	1.893E+00	2.000E-02	1.000E+02	1.556E+00	2.589E-03
1.250E-01	1.750E-01	1.501E+00	1.694E+00	5.000E-02	1.000E+02	1.556E+00	5.955E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	9.635E-01	9.721E-01	1.000E-02	1.000E+02	1.154E+00	9.989E-04
9.000E-02	1.100E-01	9.847E-01	1.405E+00	2.000E-02	1.000E+02	1.154E+00	1.659E-03
1.250E-01	1.750E-01	9.643E-01	1.257E+00	5.000E-02	1.000E+02	1.154E+00	3.835E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	7.302E-01	8.420E-01	1.000E-02	1.000E+02	1.000E+00	8.661E-04
9.000E-02	1.100E-01	7.092E-01	1.217E+00	2.000E-02	1.000E+02	1.000E+00	1.279E-03
1.250E-01	1.750E-01	7.064E-01	1.089E+00	5.000E-02	1.000E+02	1.000E+00	3.319E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.458E+01	9.697E+00	2.000E-02	1.000E+00	5.758E+00	1.000E+00
9.000E-02	1.100E-01	4.706E+02	1.401E+01	4.000E-02	1.000E+00	5.758E+00	1.000E+00
1.250E-01	1.750E-01	0.000E+00	1.254E+01	1.000E-01	1.000E+00	5.759E+00	1.000E+00
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.131E+00	2.620E+00	2.000E-02	1.000E+00	1.556E+00	3.294E-02
9.000E-02	1.100E-01	1.182E+00	3.785E+00	4.000E-02	1.000E+00	1.556E+00	6.113E-02
1.250E-01	1.750E-01	1.037E+00	3.387E+00	1.000E-01	1.000E+00	1.555E+00	5.083E-02

ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.052E+00	1.944E+00	2.000E-02	1.000E+00	1.154E+00	1.554E-02
9.000E-02	1.100E-01	1.048E+00	2.809E+00	4.000E-02	1.000E+00	1.154E+00	2.897E-02
1.250E-01	1.750E-01	1.004E+00	2.515E+00	1.000E-01	1.000E+00	1.155E+00	2.133E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.059E+00	1.684E+00	2.000E-02	1.000E+00	1.000E+00	1.096E-02
9.000E-02	1.100E-01	1.069E+00	2.433E+00	4.000E-02	1.000E+00	1.000E+00	1.914E-02
1.250E-01	1.750E-01	1.018E+00	2.177E+00	1.000E-01	1.000E+00	1.000E+00	1.776E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	7.290E+00	9.697E+00	2.000E-02	2.000E+00	5.758E+00	1.000E+00
9.000E-02	1.100E-01	1.971E+03	1.401E+01	4.000E-02	2.000E+00	5.758E+00	7.162E-01
1.250E-01	1.750E-01	5.395E+01	1.254E+01	1.000E-01	2.000E+00	5.759E+00	1.000E+00
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.102E+00	2.620E+00	2.000E-02	2.000E+00	1.556E+00	2.360E-02
9.000E-02	1.100E-01	1.165E+00	3.785E+00	4.000E-02	2.000E+00	1.556E+00	4.355E-02
1.250E-01	1.750E-01	1.036E+00	3.387E+00	1.000E-01	2.000E+00	1.555E+00	3.596E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.062E+00	1.944E+00	2.000E-02	2.000E+00	1.154E+00	1.094E-02
9.000E-02	1.100E-01	1.057E+00	2.809E+00	4.000E-02	2.000E+00	1.154E+00	2.039E-02
1.250E-01	1.750E-01	1.013E+00	2.515E+00	1.000E-01	2.000E+00	1.155E+00	1.656E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.048E+00	1.684E+00	2.000E-02	2.000E+00	1.000E+00	7.787E-03
9.000E-02	1.100E-01	1.067E+00	2.433E+00	4.000E-02	2.000E+00	1.000E+00	1.355E-02
1.250E-01	1.750E-01	1.011E+00	2.177E+00	1.000E-01	2.000E+00	1.000E+00	1.260E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.052E+01	9.697E+00	2.000E-02	1.000E+01	5.758E+00	6.933E-01
9.000E-02	1.100E-01	1.616E+03	1.401E+01	4.000E-02	1.000E+01	5.758E+00	3.538E-01
1.250E-01	1.750E-01	5.957E+01	1.254E+01	1.000E-01	1.000E+01	5.759E+00	1.000E+00
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.081E+00	2.620E+00	2.000E-02	1.000E+01	1.556E+00	1.066E-02
9.000E-02	1.100E-01	1.189E+00	3.785E+00	4.000E-02	1.000E+01	1.556E+00	2.195E-02
1.250E-01	1.750E-01	1.049E+00	3.387E+00	1.000E-01	1.000E+01	1.555E+00	1.995E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.059E+00	1.944E+00	2.000E-02	1.000E+01	1.154E+00	4.899E-03
9.000E-02	1.100E-01	1.074E+00	2.809E+00	4.000E-02	1.000E+01	1.154E+00	9.047E-03
1.250E-01	1.750E-01	1.026E+00	2.515E+00	1.000E-01	1.000E+01	1.155E+00	1.002E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.041E+00	1.684E+00	2.000E-02	1.000E+01	1.000E+00	3.495E-03
9.000E-02	1.100E-01	1.052E+00	2.433E+00	4.000E-02	1.000E+01	1.000E+00	6.102E-03
1.250E-01	1.750E-01	1.017E+00	2.177E+00	1.000E-01	1.000E+01	1.000E+00	7.446E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.042E+01	9.697E+00	2.000E-02	2.000E+01	5.758E+00	5.772E-01
9.000E-02	1.100E-01	1.469E+03	1.401E+01	4.000E-02	2.000E+01	5.758E+00	2.624E-01
1.250E-01	1.750E-01	4.916E+01	1.254E+01	1.000E-01	2.000E+01	5.759E+00	8.988E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.042E+01	9.697E+00	2.000E-02	2.000E+01	5.758E+00	5.772E-01
9.000E-02	1.100E-01	1.469E+03	1.401E+01	4.000E-02	2.000E+01	5.758E+00	2.624E-01
1.250E-01	1.750E-01	4.916E+01	1.254E+01	1.000E-01	2.000E+01	5.759E+00	8.988E-01

LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.111E+00	2.620E+00	2.000E-02	2.000E+01	1.556E+00	7.433E-03
9.000E-02	1.100E-01	1.229E+00	3.785E+00	4.000E-02	2.000E+01	1.556E+00	1.526E-02
1.250E-01	1.750E-01	1.076E+00	3.387E+00	1.000E-01	2.000E+01	1.555E+00	1.497E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.062E+00	1.944E+00	2.000E-02	2.000E+01	1.154E+00	3.460E-03
9.000E-02	1.100E-01	1.087E+00	2.809E+00	4.000E-02	2.000E+01	1.154E+00	6.358E-03
1.250E-01	1.750E-01	1.038E+00	2.515E+00	1.000E-01	2.000E+01	1.155E+00	1.180E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.026E+00	1.684E+00	2.000E-02	2.000E+01	1.000E+00	2.489E-03
9.000E-02	1.100E-01	1.027E+00	2.433E+00	4.000E-02	2.000E+01	1.000E+00	4.367E-03
1.250E-01	1.750E-01	9.991E-01	2.177E+00	1.000E-01	2.000E+01	1.000E+00	9.727E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.188E+01	9.697E+00	2.000E-02	1.000E+02	5.758E+00	2.552E-01
9.000E-02	1.100E-01	1.477E+03	1.401E+01	4.000E-02	1.000E+02	5.758E+00	2.150E-01
1.250E-01	1.750E-01	4.601E+01	1.254E+01	1.000E-01	1.000E+02	5.759E+00	5.185E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.854E+00	2.620E+00	2.000E-02	1.000E+02	1.556E+00	2.573E-03
9.000E-02	1.100E-01	2.459E+00	3.785E+00	4.000E-02	1.000E+02	1.556E+00	4.827E-03
1.250E-01	1.750E-01	2.112E+00	3.387E+00	1.000E-01	1.000E+02	1.555E+00	1.046E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.017E+00	1.944E+00	2.000E-02	1.000E+02	1.154E+00	1.581E-03
9.000E-02	1.100E-01	1.072E+00	2.809E+00	4.000E-02	1.000E+02	1.154E+00	2.864E-03
1.250E-01	1.750E-01	1.018E+00	2.515E+00	1.000E-01	1.000E+02	1.155E+00	7.013E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	6.852E-01	1.684E+00	2.000E-02	1.000E+02	1.000E+00	1.362E-03
9.000E-02	1.100E-01	6.460E-01	2.433E+00	4.000E-02	1.000E+02	1.000E+00	2.463E-03
1.250E-01	1.750E-01	6.394E-01	2.177E+00	1.000E-01	1.000E+02	1.000E+00	6.019E-03
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	.000E+00	2.424E+01	5.000E-02	1.000E+00	5.758E+00	1.000E+00
9.000E-02	1.100E-01	.000E+00	3.503E+01	1.000E-01	1.000E+00	5.759E+00	1.000E+00
1.250E-01	1.750E-01	.000E+00	3.135E+01	2.500E-01	1.000E+00	5.759E+00	1.000E+00
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.088E+00	6.549E+00	5.000E-02	1.000E+00	1.556E+00	1.570E-01
9.000E-02	1.100E-01	8.840E+00	9.461E+00	1.000E-01	1.000E+00	1.555E+00	3.189E-01
1.250E-01	1.750E-01	1.090E+00	8.465E+00	2.500E-01	1.000E+00	1.555E+00	4.084E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.096E+00	4.860E+00	5.000E-02	1.000E+00	1.154E+00	6.546E-02
9.000E-02	1.100E-01	1.526E+00	7.025E+00	1.000E-01	1.000E+00	1.155E+00	1.450E-01
1.250E-01	1.750E-01	1.069E+00	6.283E+00	2.500E-01	1.000E+00	1.154E+00	8.846E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.111E+00	4.210E+00	5.000E-02	1.000E+00	1.000E+00	3.783E-02
9.000E-02	1.100E-01	1.283E+00	6.083E+00	1.000E-01	1.000E+00	1.000E+00	9.527E-02
1.250E-01	1.750E-01	1.123E+00	5.443E+00	2.500E-01	1.000E+00	1.000E+00	4.571E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		

4.500E-02	5.500E-02	.000E+00	2.424E+01	5.000E-02	2.000E+00	5.758E+00	1.000E+00
9.000E-02	1.100E-01	.000E+00	3.503E+01	1.000E-01	2.000E+00	5.759E+00	1.000E+00
1.250E-01	1.750E-01	.000E+00	3.135E+01	2.500E-01	2.000E+00	5.759E+00	1.000E+00
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.217E+00	6.549E+00	5.000E-02	2.000E+00	1.556E+00	1.050E-01
9.000E-02	1.100E-01	6.745E+00	9.461E+00	1.000E-01	2.000E+00	1.555E+00	2.581E-01
1.250E-01	1.750E-01	7.265E-01	8.465E+00	2.500E-01	2.000E+00	1.555E+00	3.537E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.131E+00	4.860E+00	5.000E-02	2.000E+00	1.154E+00	4.556E-02
9.000E-02	1.100E-01	1.414E+00	7.025E+00	1.000E-01	2.000E+00	1.155E+00	1.065E-01
1.250E-01	1.750E-01	1.032E+00	6.283E+00	2.500E-01	2.000E+00	1.154E+00	8.418E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.103E+00	4.210E+00	5.000E-02	2.000E+00	1.000E+00	2.684E-02
9.000E-02	1.100E-01	1.260E+00	6.083E+00	1.000E-01	2.000E+00	1.000E+00	6.799E-02
1.250E-01	1.750E-01	1.067E+00	5.443E+00	2.500E-01	2.000E+00	1.000E+00	4.218E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.341E+06	2.424E+01	5.000E-02	1.000E+01	5.758E+00	1.000E+00
9.000E-02	1.100E-01	1.189E+11	3.503E+01	1.000E-01	1.000E+01	5.759E+00	1.000E+00
1.250E-01	1.750E-01	.000E+00	3.135E+01	2.500E-01	1.000E+01	5.759E+00	1.000E+00
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.191E+00	6.549E+00	5.000E-02	1.000E+01	1.556E+00	6.695E-02
9.000E-02	1.100E-01	5.502E+00	9.461E+00	1.000E-01	1.000E+01	1.555E+00	1.704E-01
1.250E-01	1.750E-01	1.108E+00	8.465E+00	2.500E-01	1.000E+01	1.555E+00	1.828E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.117E+00	4.860E+00	5.000E-02	1.000E+01	1.154E+00	2.050E-02
9.000E-02	1.100E-01	1.377E+00	7.025E+00	1.000E-01	1.000E+01	1.155E+00	5.786E-02
1.250E-01	1.750E-01	1.030E+00	6.283E+00	2.500E-01	1.000E+01	1.154E+00	4.284E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.075E+00	4.210E+00	5.000E-02	1.000E+01	1.000E+00	1.216E-02
9.000E-02	1.100E-01	1.215E+00	6.083E+00	1.000E-01	1.000E+01	1.000E+00	3.525E-02
1.250E-01	1.750E-01	1.025E+00	5.443E+00	2.500E-01	1.000E+01	1.000E+00	2.329E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.597E+06	2.424E+01	5.000E-02	2.000E+01	5.758E+00	1.000E+00
9.000E-02	1.100E-01	2.609E+11	3.503E+01	1.000E-01	2.000E+01	5.759E+00	7.231E-01
1.250E-01	1.750E-01	.000E+00	3.135E+01	2.500E-01	2.000E+01	5.759E+00	1.000E+00
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.244E+00	6.549E+00	5.000E-02	2.000E+01	1.556E+00	4.631E-02
9.000E-02	1.100E-01	6.303E+00	9.461E+00	1.000E-01	2.000E+01	1.555E+00	1.151E-01
1.250E-01	1.750E-01	1.149E+00	8.465E+00	2.500E-01	2.000E+01	1.555E+00	1.306E-01
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.124E+00	4.860E+00	5.000E-02	2.000E+01	1.154E+00	1.445E-02
9.000E-02	1.100E-01	1.446E+00	7.025E+00	1.000E-01	2.000E+01	1.155E+00	3.992E-02
1.250E-01	1.750E-01	1.084E+00	6.283E+00	2.500E-01	2.000E+01	1.154E+00	4.423E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.039E+00	4.210E+00	5.000E-02	2.000E+01	1.000E+00	8.745E-03



9.000E-02	1.100E-01	1.146E+00	6.083E+00	1.000E-01	2.000E+01	1.000E+00	2.567E-02
1.250E-01	1.750E-01	9.839E-01	5.443E+00	2.500E-01	2.000E+01	1.000E+00	1.680E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	4.647E+05	2.424E+01	5.000E-02	1.000E+02	5.758E+00	1.000E+00
9.000E-02	1.100E-01	2.936E+11	3.503E+01	1.000E-01	1.000E+02	5.759E+00	3.390E-01
1.250E-01	1.750E-01	.000E+00	3.135E+01	2.500E-01	1.000E+02	5.759E+00	1.000E+00
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	4.952E+00	6.549E+00	5.000E-02	1.000E+02	1.556E+00	1.123E-02
9.000E-02	1.100E-01	1.544E+01	9.461E+00	1.000E-01	1.000E+02	1.555E+00	3.292E-02
1.250E-01	1.750E-01	7.802E+00	8.465E+00	2.500E-01	1.000E+02	1.555E+00	3.316E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	1.252E+00	4.860E+00	5.000E-02	1.000E+02	1.154E+00	6.123E-03
9.000E-02	1.100E-01	1.796E+00	7.025E+00	1.000E-01	1.000E+02	1.155E+00	1.824E-02
1.250E-01	1.750E-01	1.332E+00	6.283E+00	2.500E-01	1.000E+02	1.154E+00	2.072E-02
ENERGY		BLDUP	M. F. P.	PB long	D. long	1./SIN	SIGMA
LOWER	UPPER			(cm)	(cm)		
4.500E-02	5.500E-02	5.704E-01	4.210E+00	5.000E-02	1.000E+02	1.000E+00	5.279E-03
9.000E-02	1.100E-01	5.922E-01	6.083E+00	1.000E-01	1.000E+02	1.000E+00	1.597E-02
1.250E-01	1.750E-01	4.944E-01	5.443E+00	2.500E-01	1.000E+02	1.000E+00	1.870E-02

表A-7 ペンシルビームと等方線源との光子再生係数の比

① ENERGY (keV)	② ANGLE (DEG.)	③ MFP	④ B-ISO/B-PEN	⑤ -SIGMA (ABS)	⑥ +SIGMA (ABS)	⑦ SIGMA (%)
15.	90.	1.235E+00	1.001E+00	-6.413E-03	6.413E-03	6.407E-01
15.	90.	2.469E+00	1.001E+00	-1.182E-02	1.182E-02	1.181E+00
15.	90.	6.173E+00	1.148E+00	-8.268E-02	8.268E-02	7.199E+00
15.	60.	1.426E+00	1.003E+00	-8.668E-03	8.668E-03	8.642E-01
15.	60.	2.851E+00	9.777E-01	-1.725E-02	1.725E-02	1.764E+00
15.	60.	7.128E+00	1.148E+00	-1.589E-01	1.589E-01	1.385E+01
15.	40.	1.921E+00	1.004E+00	-1.728E-02	1.728E-02	1.721E+00
15.	40.	3.841E+00	1.074E+00	-4.639E-02	4.639E-02	4.318E+00
20.	90.	9.578E-01	1.006E+00	-5.463E-03	5.463E-03	5.431E-01
20.	90.	1.916E+00	1.006E+00	-8.747E-03	8.747E-03	8.696E-01
20.	90.	4.789E+00	1.023E+00	-3.675E-02	3.675E-02	3.593E+00
20.	60.	1.106E+00	9.931E-01	-7.141E-03	7.141E-03	7.191E-01
20.	60.	2.212E+00	1.011E+00	-1.244E-02	1.244E-02	1.230E+00
20.	60.	5.530E+00	9.514E-01	-6.202E-02	6.202E-02	6.519E+00
20.	40.	1.490E+00	9.951E-01	-1.338E-02	1.338E-02	1.344E+00
20.	40.	2.980E+00	1.042E+00	-2.848E-02	2.848E-02	2.733E+00
20.	40.	7.450E+00	1.079E+00	-2.737E-01	2.737E-01	2.537E+01
20.	10.	5.517E+00	7.989E-01	-6.697E-01	6.697E-01	8.383E+01
30.	90.	9.897E-01	1.015E+00	-5.502E-03	5.502E-03	5.422E-01
30.	90.	1.979E+00	1.014E+00	-8.932E-03	8.932E-03	8.804E-01
30.	90.	4.949E+00	1.067E+00	-3.960E-02	3.960E-02	3.710E+00
30.	60.	1.143E+00	1.012E+00	-7.234E-03	7.234E-03	7.150E-01
30.	60.	2.286E+00	9.952E-01	-1.259E-02	1.259E-02	1.265E+00
30.	60.	5.714E+00	1.027E+00	-6.923E-02	6.923E-02	6.738E+00
30.	40.	1.540E+00	1.037E+00	-1.373E-02	1.373E-02	1.324E+00
30.	40.	3.079E+00	1.056E+00	-3.004E-02	3.004E-02	2.844E+00
30.	40.	7.699E+00	7.450E-01	-2.380E-01	2.380E-01	3.194E+01
30.	10.	5.701E+00	8.571E-01	-7.068E-01	7.068E-01	8.247E+01
40.	90.	9.193E-01	1.014E+00	-8.677E-03	8.677E-03	8.559E-01
40.	90.	1.839E+00	1.007E+00	-1.357E-02	1.357E-02	1.348E+00
40.	90.	4.596E+00	9.741E-01	-3.156E-02	3.156E-02	3.240E+00
40.	60.	1.062E+00	1.020E+00	-1.140E-02	1.140E-02	1.118E+00
40.	60.	2.123E+00	1.011E+00	-1.875E-02	1.875E-02	1.855E+00
40.	60.	5.308E+00	1.077E+00	-5.800E-02	5.800E-02	5.386E+00
40.	40.	1.430E+00	1.027E+00	-2.114E-02	2.114E-02	2.057E+00
40.	40.	2.860E+00	1.046E+00	-2.676E-02	2.676E-02	2.558E+00
40.	40.	7.151E+00	1.023E+00	-2.141E-01	2.141E-01	2.093E+01
40.	10.	5.295E+00	7.279E-01	-5.218E-01	5.218E-01	7.168E+01
50.	90.	8.420E-01	1.010E+00	-7.726E-03	7.726E-03	7.651E-01
50.	90.	1.684E+00	1.020E+00	-1.173E-02	1.173E-02	1.149E+00
50.	90.	4.210E+00	1.020E+00	-4.043E-02	4.043E-02	3.964E+00
50.	60.	9.723E-01	1.022E+00	-1.013E-02	1.013E-02	9.913E-01
50.	60.	1.945E+00	1.003E+00	-1.610E-02	1.610E-02	1.606E+00

50.	60.	4.861E+00	9.910E-01	-6.692E-02	6.692E-02	6.753E+00
50.	40.	1.310E+00	1.028E+00	-1.845E-02	1.845E-02	1.794E+00
50.	40.	2.620E+00	1.063E+00	-3.553E-02	3.553E-02	3.342E+00
50.	40.	6.550E+00	9.404E-01	-1.519E-01	1.519E-01	1.615E+01
50.	10.	9.701E-01	1.059E+00	-1.148E-01	1.148E-01	1.083E+01
50.	10.	1.940E+00	1.136E+00	-1.248E-01	1.248E-01	1.099E+01
50.	10.	4.850E+00	1.375E+00	-7.404E-01	7.404E-01	5.386E+01
60.	90.	1.033E+00	1.009E+00	-8.331E-03	8.331E-03	8.258E-01
60.	90.	2.066E+00	1.005E+00	-1.378E-02	1.378E-02	1.372E+00
60.	90.	5.165E+00	1.000E+00	-4.439E-02	4.439E-02	4.439E+00
60.	60.	1.193E+00	1.012E+00	-1.092E-02	1.092E-02	1.080E+00
60.	60.	2.386E+00	9.990E-01	-1.945E-02	1.945E-02	1.947E+00
60.	60.	5.965E+00	9.338E-01	-7.579E-02	7.579E-02	8.117E+00
60.	40.	1.607E+00	1.030E+00	-2.050E-02	2.050E-02	1.991E+00
60.	40.	3.214E+00	1.074E+00	-4.594E-02	4.594E-02	4.277E+00
60.	40.	8.036E+00	1.015E+00	-3.302E-01	3.302E-01	3.252E+01
60.	10.	5.951E+00	1.651E+00	-1.236E+00	1.236E+00	7.483E+01
80.	90.	9.631E-01	1.016E+00	-1.065E-02	1.065E-02	1.048E+00
80.	90.	1.926E+00	1.011E+00	-1.478E-02	1.478E-02	1.461E+00
80.	90.	4.815E+00	9.476E-01	-3.664E-02	3.664E-02	3.867E+00
80.	60.	1.112E+00	1.013E+00	-1.210E-02	1.210E-02	1.194E+00
80.	60.	2.224E+00	1.000E+00	-2.066E-02	2.066E-02	2.066E+00
80.	60.	5.560E+00	9.982E-01	-6.542E-02	6.542E-02	6.554E+00
80.	40.	1.498E+00	1.055E+00	-2.284E-02	2.284E-02	2.164E+00
80.	40.	2.996E+00	1.024E+00	-4.665E-02	4.665E-02	4.556E+00
80.	40.	7.491E+00	1.270E+00	-2.857E-01	2.857E-01	2.249E+01
80.	10.	5.548E+00	2.230E+00	-1.116E+00	1.116E+00	5.004E+01
100.	90.	1.217E+00	1.123E+00	-1.032E-02	1.032E-02	9.186E-01
100.	90.	2.433E+00	1.127E+00	-1.578E-02	1.578E-02	1.400E+00
100.	90.	6.083E+00	1.176E+00	-5.582E-02	5.582E-02	4.746E+00
100.	60.	1.405E+00	1.169E+00	-2.926E-02	2.926E-02	2.503E+00
100.	60.	2.810E+00	1.166E+00	-2.001E-02	2.001E-02	1.716E+00
100.	60.	7.024E+00	1.248E+00	-7.586E-02	7.586E-02	6.079E+00
100.	40.	1.893E+00	1.291E+00	-2.694E-02	2.694E-02	2.086E+00
100.	40.	3.785E+00	1.377E+00	-4.434E-02	4.434E-02	3.220E+00
100.	40.	9.463E+00	1.580E+00	-1.766E-01	1.766E-01	1.118E+01
100.	10.	1.402E+00	1.705E+00	-2.029E-01	2.029E-01	1.190E+01
100.	10.	2.803E+00	2.342E+00	-4.120E-01	4.120E-01	1.759E+01
100.	10.	7.008E+00	6.343E+00	-1.161E+00	1.161E+00	1.831E+01
150.	90.	1.089E+00	1.032E+00	-1.875E-02	1.875E-02	1.816E+00
150.	90.	2.177E+00	1.028E+00	-3.146E-02	3.146E-02	3.061E+00
150.	90.	5.443E+00	1.041E+00	-8.230E-02	8.230E-02	7.905E+00
150.	60.	1.257E+00	1.040E+00	-1.918E-02	1.918E-02	1.844E+00
150.	60.	2.514E+00	1.042E+00	-3.653E-02	3.653E-02	3.507E+00
150.	60.	6.286E+00	9.107E-01	-1.278E-01	1.278E-01	1.403E+01
150.	40.	1.694E+00	1.052E+00	-4.162E-02	4.162E-02	3.956E+00
150.	40.	3.387E+00	1.064E+00	-5.647E-02	5.647E-02	5.309E+00

150.	40.	8.468E+00	1.051E+00	-4.400E-01	4.400E-01	4.185E+01
150.	10.	1.254E+00	1.116E+00	-1.534E-01	1.534E-01	1.375E+01
150.	10.	2.509E+00	1.261E+00	-2.763E-01	2.763E-01	2.191E+01
150.	10.	6.271E+00	1.925E+00	-7.526E-01	7.526E-01	3.911E+01
200.	90.	1.067E+00	1.020E+00	-1.420E-02	1.420E-02	1.392E+00
200.	90.	2.134E+00	1.024E+00	-1.991E-02	1.991E-02	1.944E+00
200.	90.	5.335E+00	1.027E+00	-6.727E-02	6.727E-02	6.552E+00
200.	60.	1.232E+00	1.018E+00	-1.951E-02	1.951E-02	1.916E+00
200.	60.	2.464E+00	1.008E+00	-2.525E-02	2.525E-02	2.505E+00
200.	60.	6.161E+00	1.046E+00	-1.286E-01	1.286E-01	1.230E+01
200.	40.	1.660E+00	1.020E+00	-2.609E-02	2.609E-02	2.558E+00
200.	40.	3.320E+00	1.051E+00	-4.933E-02	4.933E-02	4.696E+00
200.	40.	8.300E+00	1.235E+00	-4.784E-01	4.784E-01	3.874E+01
200.	10.	1.229E+00	1.138E+00	-1.421E-01	1.421E-01	1.250E+01
200.	10.	2.459E+00	1.206E+00	-2.462E-01	2.462E-01	2.041E+01
200.	10.	6.147E+00	9.571E-01	-7.927E-01	7.927E-01	8.282E+01
300.	90.	1.064E+00	1.001E+00	-1.251E-02	1.251E-02	1.250E+00
300.	90.	2.128E+00	9.905E-01	-2.031E-02	2.031E-02	2.051E+00
300.	90.	5.320E+00	1.022E+00	-7.656E-02	7.656E-02	7.487E+00
300.	60.	1.229E+00	1.004E+00	-1.616E-02	1.616E-02	1.610E+00
300.	60.	2.457E+00	1.003E+00	-2.844E-02	2.844E-02	2.837E+00
300.	60.	6.143E+00	1.096E+00	-1.475E-01	1.475E-01	1.346E+01
300.	40.	1.655E+00	1.003E+00	-2.764E-02	2.764E-02	2.757E+00
300.	40.	3.310E+00	1.009E+00	-5.657E-02	5.657E-02	5.609E+00
300.	40.	8.276E+00	1.556E+00	-5.201E-01	5.201E-01	3.342E+01
300.	10.	1.226E+00	1.036E+00	-1.463E-01	1.463E-01	1.412E+01
300.	10.	2.451E+00	1.271E+00	-2.979E-01	2.979E-01	2.343E+01
400.	90.	9.795E-01	9.974E-01	-1.127E-02	1.127E-02	1.130E+00
400.	90.	1.959E+00	1.024E+00	-1.807E-02	1.807E-02	1.765E+00
400.	90.	4.897E+00	1.057E+00	-5.626E-02	5.626E-02	5.324E+00
400.	60.	1.131E+00	1.004E+00	-1.484E-02	1.484E-02	1.477E+00
400.	60.	2.262E+00	1.036E+00	-2.564E-02	2.564E-02	2.475E+00
400.	60.	5.655E+00	1.002E+00	-9.731E-02	9.731E-02	9.709E+00
400.	40.	1.524E+00	1.017E+00	-3.698E-02	3.698E-02	3.635E+00
400.	40.	3.048E+00	1.023E+00	-5.603E-02	5.603E-02	5.476E+00
400.	40.	7.619E+00	1.313E+00	-3.915E-01	3.915E-01	2.982E+01
400.	10.	1.128E+00	1.047E+00	-1.390E-01	1.390E-01	1.328E+01
400.	10.	2.257E+00	1.492E+00	-2.665E-01	2.665E-01	1.787E+01
400.	10.	5.642E+00	2.271E+00	-1.637E+00	1.637E+00	7.209E+01
500.	90.	1.025E+00	1.011E+00	-1.403E-02	1.403E-02	1.388E+00
500.	90.	2.051E+00	1.008E+00	-1.763E-02	1.763E-02	1.748E+00
500.	90.	5.127E+00	1.088E+00	-7.226E-02	7.226E-02	6.642E+00
500.	60.	1.184E+00	1.030E+00	-1.477E-02	1.477E-02	1.434E+00
500.	60.	2.368E+00	1.047E+00	-2.941E-02	2.941E-02	2.808E+00
500.	60.	5.920E+00	1.045E+00	-1.268E-01	1.268E-01	1.213E+01
500.	40.	1.595E+00	1.038E+00	-2.696E-02	2.696E-02	2.597E+00
500.	40.	3.190E+00	1.129E+00	-5.775E-02	5.775E-02	5.116E+00

500.	40.	7.975E+00	2.109E+00	-7.585E-01	7.585E-01	3.597E+01
500.	10.	1.181E+00	1.143E+00	-1.556E-01	1.556E-01	1.361E+01
500.	10.	2.362E+00	1.262E+00	-2.643E-01	2.643E-01	2.095E+01
500.	10.	5.906E+00	3.446E+00	-2.470E+00	2.470E+00	7.168E+01

付録2 GP法による再生係数

表B-1にGP法による再生係数を示す。表中のデータは、①線源光子エネルギー、②Mean free path単位の厚さ、③GP法による再生係数を示している。

*(Table content is extremely faint and illegible in the provided image)*

表B-1 GP法による再生係数

① ENERGY (MeV)	② M. F. P.	③ GP-BUILD
1.500E-02	1.000E-02	1.000E+00
1.500E-02	1.000E+00	1.007E+00
1.500E-02	2.000E+00	1.010E+00
1.500E-02	3.000E+00	1.011E+00
1.500E-02	4.000E+00	1.012E+00
1.500E-02	5.000E+00	1.013E+00
1.500E-02	6.000E+00	1.014E+00
1.500E-02	7.000E+00	1.014E+00
1.500E-02	8.000E+00	1.015E+00
1.500E-02	9.000E+00	1.015E+00
1.500E-02	1.000E+01	1.016E+00
1.500E-02	1.100E+01	1.016E+00
1.500E-02	1.200E+01	1.017E+00
1.500E-02	1.300E+01	1.017E+00
1.500E-02	1.400E+01	1.018E+00
1.500E-02	1.500E+01	1.018E+00
1.500E-02	1.600E+01	1.019E+00
1.500E-02	1.700E+01	1.019E+00
1.500E-02	1.800E+01	1.019E+00
1.500E-02	1.900E+01	1.020E+00
2.000E-02	1.000E-02	1.000E+00
2.000E-02	1.000E+00	1.007E+00
2.000E-02	2.000E+00	1.010E+00
2.000E-02	3.000E+00	1.011E+00
2.000E-02	4.000E+00	1.012E+00
2.000E-02	5.000E+00	1.013E+00
2.000E-02	6.000E+00	1.014E+00
2.000E-02	7.000E+00	1.014E+00
2.000E-02	8.000E+00	1.015E+00
2.000E-02	9.000E+00	1.015E+00
2.000E-02	1.000E+01	1.016E+00
2.000E-02	1.100E+01	1.016E+00
2.000E-02	1.200E+01	1.017E+00
2.000E-02	1.300E+01	1.017E+00
2.000E-02	1.400E+01	1.018E+00
2.000E-02	1.500E+01	1.018E+00
2.000E-02	1.600E+01	1.019E+00
2.000E-02	1.700E+01	1.019E+00
2.000E-02	1.800E+01	1.019E+00
2.000E-02	1.900E+01	1.020E+00
3.000E-02	1.000E-02	1.000E+00
3.000E-02	1.000E+00	1.007E+00
3.000E-02	2.000E+00	1.010E+00
3.000E-02	3.000E+00	1.011E+00
3.000E-02	4.000E+00	1.012E+00
3.000E-02	5.000E+00	1.013E+00
3.000E-02	6.000E+00	1.014E+00
3.000E-02	7.000E+00	1.014E+00
3.000E-02	8.000E+00	1.015E+00
3.000E-02	9.000E+00	1.015E+00
3.000E-02	1.000E+01	1.016E+00
3.000E-02	1.100E+01	1.016E+00
3.000E-02	1.200E+01	1.017E+00

3. 000E-02	1. 300E+01	1. 017E+00
3. 000E-02	1. 400E+01	1. 018E+00
3. 000E-02	1. 500E+01	1. 018E+00
3. 000E-02	1. 600E+01	1. 019E+00
3. 000E-02	1. 700E+01	1. 019E+00
3. 000E-02	1. 800E+01	1. 019E+00
3. 000E-02	1. 900E+01	1. 020E+00
4. 000E-02	1. 000E-02	1. 000E+00
4. 000E-02	1. 000E+00	1. 014E+00
4. 000E-02	2. 000E+00	1. 019E+00
4. 000E-02	3. 000E+00	1. 022E+00
4. 000E-02	4. 000E+00	1. 024E+00
4. 000E-02	5. 000E+00	1. 026E+00
4. 000E-02	6. 000E+00	1. 027E+00
4. 000E-02	7. 000E+00	1. 028E+00
4. 000E-02	8. 000E+00	1. 029E+00
4. 000E-02	9. 000E+00	1. 030E+00
4. 000E-02	1. 000E+01	1. 031E+00
4. 000E-02	1. 100E+01	1. 032E+00
4. 000E-02	1. 200E+01	1. 033E+00
4. 000E-02	1. 300E+01	1. 034E+00
4. 000E-02	1. 400E+01	1. 035E+00
4. 000E-02	1. 500E+01	1. 036E+00
4. 000E-02	1. 600E+01	1. 036E+00
4. 000E-02	1. 700E+01	1. 037E+00
4. 000E-02	1. 800E+01	1. 038E+00
4. 000E-02	1. 900E+01	1. 039E+00
5. 000E-02	1. 000E-02	1. 001E+00
5. 000E-02	1. 000E+00	1. 023E+00
5. 000E-02	2. 000E+00	1. 032E+00
5. 000E-02	3. 000E+00	1. 036E+00
5. 000E-02	4. 000E+00	1. 040E+00
5. 000E-02	5. 000E+00	1. 042E+00
5. 000E-02	6. 000E+00	1. 044E+00
5. 000E-02	7. 000E+00	1. 046E+00
5. 000E-02	8. 000E+00	1. 048E+00
5. 000E-02	9. 000E+00	1. 050E+00
5. 000E-02	1. 000E+01	1. 051E+00
5. 000E-02	1. 100E+01	1. 053E+00
5. 000E-02	1. 200E+01	1. 054E+00
5. 000E-02	1. 300E+01	1. 056E+00
5. 000E-02	1. 400E+01	1. 057E+00
5. 000E-02	1. 500E+01	1. 058E+00
5. 000E-02	1. 600E+01	1. 060E+00
5. 000E-02	1. 700E+01	1. 061E+00
5. 000E-02	1. 800E+01	1. 062E+00
5. 000E-02	1. 900E+01	1. 063E+00
6. 000E-02	1. 000E-02	1. 001E+00
6. 000E-02	1. 000E+00	1. 033E+00
6. 000E-02	2. 000E+00	1. 046E+00
6. 000E-02	3. 000E+00	1. 053E+00
6. 000E-02	4. 000E+00	1. 058E+00
6. 000E-02	5. 000E+00	1. 062E+00
6. 000E-02	6. 000E+00	1. 066E+00
6. 000E-02	7. 000E+00	1. 069E+00
6. 000E-02	8. 000E+00	1. 072E+00



6.000E-02	9.000E+00	1.075E+00
6.000E-02	1.000E+01	1.077E+00
6.000E-02	1.100E+01	1.080E+00
6.000E-02	1.200E+01	1.083E+00
6.000E-02	1.300E+01	1.085E+00
6.000E-02	1.400E+01	1.087E+00
6.000E-02	1.500E+01	1.090E+00
6.000E-02	1.600E+01	1.092E+00
6.000E-02	1.700E+01	1.094E+00
6.000E-02	1.800E+01	1.096E+00
6.000E-02	1.900E+01	1.098E+00
8.000E-02	1.000E-02	1.001E+00
8.000E-02	1.000E+00	1.058E+00
8.000E-02	2.000E+00	1.083E+00
8.000E-02	3.000E+00	1.098E+00
8.000E-02	4.000E+00	1.109E+00
8.000E-02	5.000E+00	1.117E+00
8.000E-02	6.000E+00	1.125E+00
8.000E-02	7.000E+00	1.131E+00
8.000E-02	8.000E+00	1.137E+00
8.000E-02	9.000E+00	1.143E+00
8.000E-02	1.000E+01	1.149E+00
8.000E-02	1.100E+01	1.154E+00
8.000E-02	1.200E+01	1.159E+00
8.000E-02	1.300E+01	1.164E+00
8.000E-02	1.400E+01	1.169E+00
8.000E-02	1.500E+01	1.174E+00
8.000E-02	1.600E+01	1.178E+00
8.000E-02	1.700E+01	1.182E+00
8.000E-02	1.800E+01	1.187E+00
8.000E-02	1.900E+01	1.190E+00
1.000E-01	1.000E-02	1.009E+00
1.000E-01	1.000E+00	1.930E+00
1.000E-01	2.000E+00	3.384E+00
1.000E-01	3.000E+00	5.808E+00
1.000E-01	4.000E+00	9.952E+00
1.000E-01	5.000E+00	1.715E+01
1.000E-01	6.000E+00	2.979E+01
1.000E-01	7.000E+00	5.224E+01
1.000E-01	8.000E+00	9.243E+01
1.000E-01	9.000E+00	1.649E+02
1.000E-01	1.000E+01	2.964E+02
1.000E-01	1.100E+01	5.366E+02
1.000E-01	1.200E+01	9.773E+02
1.000E-01	1.300E+01	1.790E+03
1.000E-01	1.400E+01	3.296E+03
1.000E-01	1.500E+01	6.096E+03
1.000E-01	1.600E+01	1.132E+04
1.000E-01	1.700E+01	2.111E+04
1.000E-01	1.800E+01	3.949E+04
1.000E-01	1.900E+01	7.412E+04
1.500E-01	1.000E-02	1.010E+00
1.500E-01	1.000E+00	1.402E+00
1.500E-01	2.000E+00	1.572E+00
1.500E-01	3.000E+00	1.682E+00
1.500E-01	4.000E+00	1.766E+00

1.500E-01	5.000E+00	1.837E+00
1.500E-01	6.000E+00	1.902E+00
1.500E-01	7.000E+00	1.963E+00
1.500E-01	8.000E+00	2.023E+00
1.500E-01	9.000E+00	2.083E+00
1.500E-01	1.000E+01	2.142E+00
1.500E-01	1.100E+01	2.203E+00
1.500E-01	1.200E+01	2.265E+00
1.500E-01	1.300E+01	2.328E+00
1.500E-01	1.400E+01	2.394E+00
1.500E-01	1.500E+01	2.462E+00
1.500E-01	1.600E+01	2.533E+00
1.500E-01	1.700E+01	2.607E+00
1.500E-01	1.800E+01	2.684E+00
1.500E-01	1.900E+01	2.765E+00
2.000E-01	1.000E-02	1.008E+00
2.000E-01	1.000E+00	1.201E+00
2.000E-01	2.000E+00	1.243E+00
2.000E-01	3.000E+00	1.264E+00
2.000E-01	4.000E+00	1.278E+00
2.000E-01	5.000E+00	1.291E+00
2.000E-01	6.000E+00	1.302E+00
2.000E-01	7.000E+00	1.312E+00
2.000E-01	8.000E+00	1.322E+00
2.000E-01	9.000E+00	1.332E+00
2.000E-01	1.000E+01	1.341E+00
2.000E-01	1.100E+01	1.351E+00
2.000E-01	1.200E+01	1.360E+00
2.000E-01	1.300E+01	1.369E+00
2.000E-01	1.400E+01	1.377E+00
2.000E-01	1.500E+01	1.386E+00
2.000E-01	1.600E+01	1.394E+00
2.000E-01	1.700E+01	1.402E+00
2.000E-01	1.800E+01	1.409E+00
2.000E-01	1.900E+01	1.416E+00
3.000E-01	1.000E-02	1.003E+00
3.000E-01	1.000E+00	1.148E+00
3.000E-01	2.000E+00	1.220E+00
3.000E-01	3.000E+00	1.267E+00
3.000E-01	4.000E+00	1.302E+00
3.000E-01	5.000E+00	1.331E+00
3.000E-01	6.000E+00	1.356E+00
3.000E-01	7.000E+00	1.378E+00
3.000E-01	8.000E+00	1.399E+00
3.000E-01	9.000E+00	1.419E+00
3.000E-01	1.000E+01	1.437E+00
3.000E-01	1.100E+01	1.455E+00
3.000E-01	1.200E+01	1.473E+00
3.000E-01	1.300E+01	1.490E+00
3.000E-01	1.400E+01	1.506E+00
3.000E-01	1.500E+01	1.521E+00
3.000E-01	1.600E+01	1.537E+00
3.000E-01	1.700E+01	1.551E+00
3.000E-01	1.800E+01	1.565E+00
3.000E-01	1.900E+01	1.578E+00
4.000E-01	1.000E-02	1.003E+00

4.000E-01	1.000E+00	1.187E+00
4.000E-01	2.000E+00	1.302E+00
4.000E-01	3.000E+00	1.389E+00
4.000E-01	4.000E+00	1.458E+00
4.000E-01	5.000E+00	1.518E+00
4.000E-01	6.000E+00	1.571E+00
4.000E-01	7.000E+00	1.619E+00
4.000E-01	8.000E+00	1.663E+00
4.000E-01	9.000E+00	1.705E+00
4.000E-01	1.000E+01	1.745E+00
4.000E-01	1.100E+01	1.784E+00
4.000E-01	1.200E+01	1.821E+00
4.000E-01	1.300E+01	1.858E+00
4.000E-01	1.400E+01	1.893E+00
4.000E-01	1.500E+01	1.927E+00
4.000E-01	1.600E+01	1.960E+00
4.000E-01	1.700E+01	1.993E+00
4.000E-01	1.800E+01	2.024E+00
4.000E-01	1.900E+01	2.054E+00
5.000E-01	1.000E-02	1.004E+00
5.000E-01	1.000E+00	1.233E+00
5.000E-01	2.000E+00	1.392E+00
5.000E-01	3.000E+00	1.518E+00
5.000E-01	4.000E+00	1.624E+00
5.000E-01	5.000E+00	1.717E+00
5.000E-01	6.000E+00	1.801E+00
5.000E-01	7.000E+00	1.878E+00
5.000E-01	8.000E+00	1.950E+00
5.000E-01	9.000E+00	2.019E+00
5.000E-01	1.000E+01	2.085E+00
5.000E-01	1.100E+01	2.148E+00
5.000E-01	1.200E+01	2.210E+00
5.000E-01	1.300E+01	2.270E+00
5.000E-01	1.400E+01	2.328E+00
5.000E-01	1.500E+01	2.385E+00
5.000E-01	1.600E+01	2.440E+00
5.000E-01	1.700E+01	2.494E+00
5.000E-01	1.800E+01	2.547E+00
5.000E-01	1.900E+01	2.598E+00

## 付録3 EGS4コードの入力データ例

以下に、線源エネルギー500keVの入力データを示す。

ファイル名	線源角度(度)	遮蔽厚(鉛 mm)
D10T01MM.INP	10	1
D10T02MM.INP	10	2
D10T04MM.INP	10	4
D10T07MM.INP	10	7
D10T10MM.INP	10	10
D40T01MM.INP	40	1
D40T02MM.INP	40	2
D40T04MM.INP	40	4
D40T07MM.INP	40	7
D40T10MM.INP	40	10
D60T01MM.INP	60	1
D60T02MM.INP	60	2
D60T04MM.INP	60	4
D60T07MM.INP	60	7
D60T10MM.INP	60	10
D90T01MM.INP	90	1
D90T02MM.INP	90	2
D90T04MM.INP	90	4
D90T07MM.INP	90	7
D90T10MM.INP	90	10
D00T01MM.INP	等方	1
D00T02MM.INP	等方	2
D00T04MM.INP	等方	4
D00T07MM.INP	等方	7
D00T10MM.INP	等方	10

D10T01MM.INP

```

ANGULER CHECK 10 DEG. 500keV  PB 1 mm
* PRESTA : 0=ON , 1=OFF
* ESTEPE : DATA OF ESTEP
* PRINT : 0=ALL , 1=EXCEPT ECNSV1 & NTALLY , 2=EXCEPT 1 & SPECTRUM
* PRESTA ESTEPE ECUT PCUT PRINT RAYLEIGHT
0 0.0 0 0 2 0
* MATERIAL COUNT
2
* MATERIAL NAME
AIR
PB
*GEOMETRY
* NCYL , NPLAN
3 2
* (CYRAD(J), J=1, NCYL)
50.0 50.1 52.0
* (PCOORD(3, J), J=1, NPLAN)
-100.0 310.0
*MET
1 2 1
*IRAYLR
*ECUT
*PCUT
*IEDFE
1
* IQII IBETFG EINN NCASPB NBATCH ISFG JWATCH
0 1 0.5 100000 10 0 0
*SOURCE
5.0E-1 5.0E-1 1.0
*ISFG=1 point source
* X Y Z
0.0 0.0 0.0
* UI VI WI
0.0 0.17365 0.98481
* ICKCNT
3
* DELTAE
0.01
* ICKXMD
2 3 4
* IFXCNT
5
* IFLXP IQFLX
3 0
* IFLXP=0
* XFLX YFLX ZYLY RRFLX HFLX THS THE
0.0 0.0 284.2 50.2 1.0 0.0 0.0
* IFLXP IQFLX
3 0
* IFLXP=0
* XFLX YFLX ZYLY RRFLX HFLX THS THE
0.0 0.0 283.7 50.2 2.0 0.0 0.0
* IFLXP IQFLX
3 0
* IFLXP=0
* XFLX YFLX ZYLY RRFLX HFLX THS THE
0.0 0.0 279.7 50.2 10.0 0.0 0.0
* IFLXP IQFLX
3 0
* IFLXP=0
* XFLX YFLX ZYLY RRFLX HFLX THS THE
0.0 0.0 270.8 50.2 29.2 0.0 0.0
* IFLXP IQFLX
3 0
* IFLXP=0
* XFLX YFLX ZYLY RRFLX HFLX THS THE
0.0 0.0 270.0 50.2 29.0 0.0 0.0
* IFLXEG(1)
19
* FLXEG
0.00
1.00E-02
1.25E-02
1.75E-02
2.25E-02
2.50E-02
3.50E-02
4.50E-02
5.50E-02
6.50E-02
7.00E-02
9.00E-02
1.10E-01
1.25E-01
1.75E-01
2.25E-01

```

D10T01MM.INP

```
2.50E-01
3.50E-01
4.50E-01
5.50E-01
* IFLXEG(2)
  0
* HOSEIS AFCT BFCT NAIPT
  1.0    0.0  0.0    0
```

D10T02MM.INP

```

ANGULER CHECK 10 DEG. 500keV  PB 2 mm
* PRESTA : 0=ON .1=OFF
* ESTEPE : DATA OF ESTEP
* PRINT : 0=ALL ,1=EXCEPT ECNSV1 & NTALLY ,2=EXCEPT 1 & SPECTRUM
* PRESTA ESTEPE ECUT PCUT PRINT RAYLEIGHT
  0 0.0 0 0 2 0
* MATERIAL COUNT
  2
* MATERIAL NAME
AIR
PB
*GEOMETRY
* NCYL , NPLAN
  3 2
* (CYRAD(J), J=1, NCYL)
  50.0 50.2 52.0
* (PCOORD(3, J), J=1, NPLAN)
  -100.0 310.0
*MET
  1 2 1
*IRAYLR
*ECUT
*PCUT
*IEDFE
  1
* IQII IBETFG EINN NCASPB NBTACH ISFG JWATCH
  0 1 0.5 1000000 10 0 0
*SOURCE
  5.0E-1 5.0E-1 1.0
*ISFG=1 point source
* X Y Z
  0.0 0.0 0.0
* UI VI WI
  0.0 0.17355 0.98481
* ICKCNT
  3
* DELTAE
  0.01
* ICKKMD
  2 3 4
* IFXCNT
  5
* IFLXP IQFLX
  3 0
* IFLXP=0
* XFLX YFLX ZYLY RRFLX HFLX THS THE
  0.0 0.0 284.8 50.3 1.0 0.0 0.0
* IFLXP IQFLX
  3 0
* IFLXP=0
* XFLX YFLX ZYLY RRFLX HFLX THS THE
  0.0 0.0 284.3 50.3 2.0 0.0 0.0
* IFLXP IQFLX
  3 0
* IFLXP=0
* XFLX YFLX ZYLY RRFLX HFLX THS THE
  0.0 0.0 280.3 50.3 10.0 0.0 0.0
* IFLXP IQFLX
  3 0
* IFLXP=0
* XFLX YFLX ZYLY RRFLX HFLX THS THE
  0.0 0.0 271.4 50.3 29.2 0.0 0.0
* IFLXP IQFLX
  3 0
* IFLXP=0
* XFLX YFLX ZYLY RRFLX HFLX THS THE
  0.0 0.0 270.0 50.3 29.0 0.0 0.0
* IFLXEG(1)
  19
* FLXEG
  0.00
  1.00E-02
  1.25E-02
  1.75E-02
  2.25E-02
  2.50E-02
  3.50E-02
  4.50E-02
  5.50E-02
  6.50E-02
  7.00E-02
  9.00E-02
  1.10E-01
  1.25E-01
  1.75E-01
  2.25E-01

```

D10T02MM.INP

```
2.50E-01
3.50E-01
4.50E-01
5.50E-01
* IFLXEG(2)
  0
* HOSEIS AFCT BFCT NAIPT
  1.0    0.0  0.0    0
```



D10T04MM.INP

```

ANGULER CHECK 10 DEG. 500keV  PB 4 mm
* PRESTA : 0=ON ,1=OFF
* ESTEPE : DATA OF ESTEP
* PRINT : 0=ALL ,1=EXCEPT ECNSV1 & NTALLY ,2=EXCEPT 1 & SPECTRUM
* PRESTA ESTEPE ECUT PCUT PRINT RAYLEIGHT
  0 0.0 0 0 2 0
* MATERIAL COUNT
  2
* MATERIAL NAME
AIR
PB
*GEOMETRY
* NCYL , NPLAN
  3 2
* (CYRAD(J),J=1,NCYL)
  50.0 50.4 52.0
* (PCOORD(3,J),J=1,NPLAN)
  -100.0 310.0
*MET
  1 2 1
*IRAYLR
*ECUT
*PCUT
*IEDFE
  1
* IQII IBETFG EINN NCASPB NATCH ISFG JWATCH
  0 1 0.5 1000000 10 0 0
*SOURCE
  5.0E-1 5.0E-1 1.0
*ISFG=1 point source
* X Y Z
  0.0 0.0 0.0
* UI VI WI
  0.0 0.17355 0.98481
* ICXCNT
  3
* DELTAE
  0.01
* ICKKMD
  2 3 4
* IFXCNT
  5
* IFLXP IQFLX
  3 0
* IFLXP=0
* XFLX YFLX ZYLY RRFLX HFLX THS THE
  0.0 0.0 285.9 50.5 1.0 0.0 0.0
* IFLXP IQFLX
  3 0
* IFLXP=0
* XFLX YFLX ZYLY RRFLX HFLX THS THE
  0.0 0.0 285.4 50.5 2.0 0.0 0.0
* IFLXP IQFLX
  3 0
* IFLXP=0
* XFLX YFLX ZYLY RRFLX HFLX THS THE
  0.0 0.0 281.4 50.5 10.0 0.0 0.0
* IFLXP IQFLX
  3 0
* IFLXP=0
* XFLX YFLX ZYLY RRFLX HFLX THS THE
  0.0 0.0 272.5 50.5 29.3 0.0 0.0
* IFLXP IQFLX
  3 0
* IFLXP=0
* XFLX YFLX ZYLY RRFLX HFLX THS THE
  0.0 0.0 270.0 50.5 29.0 0.0 0.0
* IFLXEG(1)
  19
* FLXEG
  0.00
  1.00E-02
  1.25E-02
  1.75E-02
  2.25E-02
  2.50E-02
  3.50E-02
  4.50E-02
  5.50E-02
  6.50E-02
  7.00E-02
  9.00E-02
  1.10E-01
  1.25E-01
  1.75E-01
  2.25E-01

```

D10T04MM.INP

```
2.50E-01
3.50E-01
4.50E-01
5.50E-01
* IFLXEG(2)
  0
* HOSEIS AFCT BFCT NAIPT
  1.0    0.0  0.0   0
```

D10T07MM.INP

```

ANGULER CHECK 10 DEG. 500keV  PB 7 mm
* PRESTA : 0=ON ,1=OFF
* ESTEPE : DATA OF ESTEP
* PRINT : 0=ALL ,1=EXCEPT ECNSV1 & NTALLY ,2=EXCEPT 1 & SPECTRUM
* PRESTA ESTEPE ECUT PCUT PRINT RAYLEIGHT
  0 0.0 0 0 2 0
* MATERIAL COUNT
  2
* MATERIAL NAME
AIR
PB
*GEOMETRY
* NCYL , NPLAN
  3 2
* (CYRAD(J), J=1, NCYL)
  50.0 50.7 52.0
* (PCOORD(3, J), J=1, NPLAN)
  -100.0 310.0
*MET
  1 2 1
*IRAYLR
*ECUT
*PCUT
*IEDPE
  1
* IQII IBETFG EINN NCASPB NBATCH ISFG JWATCH
  0 1 0.5 1000000 10 0 0
*SOURCE
  5.0E-1 5.0E-1 1.0
*ISFG=1 point source
* X Y Z
  0.0 0.0 0.0
* UI VI WI
  0.0 0.17365 0.98481
* ICKCNT
  3
* DELTAE
  0.01
* ICKKMD
  2 3 4
* IFXCNT
  5
* IFLXP IQFLX
  3 0
* IFLXP=0
* XFLX YFLX ZYLY RRFLX HFLX THS THE
  0.0 0.0 287.6 50.8 1.0 0.0 0.0
* IFLXP IQFLX
  3 0
* IFLXP=0
* XFLX YFLX ZYLY RRFLX HFLX THS THE
  0.0 0.0 287.1 50.8 2.0 0.0 0.0
* IFLXP IQFLX
  3 0
* IFLXP=0
* XFLX YFLX ZYLY RRFLX HFLX THS THE
  0.0 0.0 283.1 50.8 10.0 0.0 0.0
* IFLXP IQFLX
  3 0
* IFLXP=0
* XFLX YFLX ZYLY RRFLX HFLX THS THE
  0.0 0.0 274.1 50.8 29.5 0.0 0.0
* IFLXP IQFLX
  3 0
* IFLXP=0
* XFLX YFLX ZYLY RRFLX HFLX THS THE
  0.0 0.0 270.0 50.8 29.0 0.0 0.0
* IFLXEG(1)
  19
* FLXEG
  0.00
  1.00E-02
  1.25E-02
  1.75E-02
  2.25E-02
  2.50E-02
  3.50E-02
  4.50E-02
  5.50E-02
  6.50E-02
  7.00E-02
  9.00E-02
  1.10E-01
  1.25E-01
  1.75E-01
  2.25E-01

```

D10T07MM.INP

```
2.50E-01
3.50E-01
4.50E-01
5.50E-01
* IFLXEG(2)
  0
* HOSEIS AFCT BFCT NAIPT
  1.0    0.0  0.0    0
```

D10T10MM.INP

```

ANGULER CHECK 10 DEG. 500keV  PB 10 mm
* PRESTA : 0=ON , 1=OFF
* ESTEPE : DATA OF ESTEP
* PRINT : 0=ALL , 1=EXCEPT ECNSV1 & NTALLY , 2=EXCEPT 1 & SPECTRUM
* PRESTA ESTEPE ECUT PCUT PRINT RAYLEIGHT
  0 0.0 0 0 2 0
* MATERIAL COUNT
  2
* MATERIAL NAME
AIR
PB
*GEOMETRY
* NCYL , NPLAN
  3 2
* (CYRAD(J), J=1, NCYL)
  50.0 51.0 52.0
* (PCOORD(3, J), J=1, NPLAN)
  -100.0 310.0
*MET
  1 2 1
*IRAYLR
*ECUT
*PCUT
*IEDFE
  1
* IQII IBETFG EINN NCASPB NBATCH ISFG JWATCH
  0 1 0.5 1000000 10 0 0
*SOURCE
  5.0E-1 5.0E-1 1.0
*ISFG=1 point source
* X Y Z
  0.0 0.0 0.0
* UI VI WI
  0.0 0.17365 0.98481
* ICKCNT
  3
* DELTAE
  0.01
* ICKKMD
  2 3 4
* IFXCNT
  5
* IFLXP IQFLX
  3 0
* IFLXP=0
* XFLX YFLX ZYLX RRFLX HFLX THS THE
  0.0 0.0 289.3 51.1 1.0 0.0 0.0
* IFLXP IQFLX
  3 0
* IFLXP=0
* XFLX YFLX ZYLX RRFLX HFLX THS THE
  0.0 0.0 288.8 51.1 2.0 0.0 0.0
* IFLXP IQFLX
  3 0
* IFLXP=0
* XFLX YFLX ZYLX RRFLX HFLX THS THE
  0.0 0.0 284.8 51.1 10.0 0.0 0.0
* IFLXP IQFLX
  3 0
* IFLXP=0
* XFLX YFLX ZYLX RRFLX HFLX THS THE
  0.0 0.0 275.7 51.1 29.7 0.0 0.0
* IFLXP IQFLX
  3 0
* IFLXP=0
* XFLX YFLX ZYLX RRFLX HFLX THS THE
  0.0 0.0 270.0 51.1 29.0 0.0 0.0
* IFLXEG(1)
  19
* FLXEG
  0.00
  1.00E-02
  1.25E-02
  1.75E-02
  2.25E-02
  2.50E-02
  3.50E-02
  4.50E-02
  5.50E-02
  6.50E-02
  7.00E-02
  9.00E-02
  1.10E-01
  1.25E-01
  1.75E-01
  2.25E-01

```

D10T10MM. INP

```
2.50E-01
3.50E-01
4.50E-01
5.50E-01
* IFLXEG(2)
  0
* HOSEIS AFCT BFCT NAIPT
  1.0    0.0  0.0    0
```

D40T01MM.INP

```

ANGULER CHECK 40 DEG. 500keV  PB 1 mm
* PRESTA : 0=ON ,1=OFF
* ESTEPE : DATA OF ESTEP
* PRINT : 0=ALL ,1=EXCEPT ECNSV1 & NTALLY ,2=EXCEPT 1 & SPECTRUM
* PRESTA ESTEPE ECUT PCUT PRINT RAYLEIGHT
  0 0.0 0 0 2 0
* MATERIAL COUNT
  2
* MATERIAL NAME
AIR
PB
*GEOMETRY
* NCYL , NPLAN
  3 2
* (CYRAD(J), J=1, NCYL)
  50.0 50.1 52.0
* (PCOORD(3, J), J=1, NPLAN)
  -100.0 300.0
*MET
  1 2 1
*IRAYLR
*ECUT
*PCUT
*IEDFE
  1
* IQII IBETFG EINN NCASPB NBATCH ISFG JWATCH
  0 1 0.5 100000 10 0 0
*SOURCE
  5.0E-1 5.0E-1 1.0
*ISFG=1 point source
* X Y Z
  0.0 0.0 0.0
* UI VI WI
  0.0 0.64278 0.76604
* ICKCNT
  3
* DELTAE
  0.01
* ICKKMD
  2 3 4
* IFXCNT
  1
* IFLXP IQFLX
  3 0
* IFLXP=0
* XFLX YFLX ZYLX RRFLX HFLX THS THE
  0.0 0.0 58.6 50.2 2.2 0.0 0.0
* IFLXEG(1)
  19
* FLXEG
  0.00
  1.00E-02
  1.25E-02
  1.75E-02
  2.25E-02
  2.50E-02
  3.50E-02
  4.50E-02
  5.50E-02
  6.50E-02
  7.00E-02
  9.00E-02
  1.10E-01
  1.25E-01
  1.75E-01
  2.25E-01
  2.50E-01
  3.50E-01
  4.50E-01
  5.50E-01
* IFLXEG(2)
  0
* HOSEIS AFCT BFCT NAIPT
  1.0 0.0 0.0 0

```

D40T02MM.INP

```

ANGULER CHECK 40 DEG. 500keV  PB 2 mm
* PRESTA : 0=ON ,1=OFF
* ESTEPE : DATA OF ESTEP
* PRINT : 0=ALL ,1=EXCEPT ECNSV1 & NTALLY ,2=EXCEPT 1 & SPECTRUM
* PRESTA ESTEPE ECUT PCUT PRINT RAYLEIGHT
  0 0.0 0 0 2 0
* MATERIAL COUNT
  2
* MATERIAL NAME
AIR
PB
*GEOMETRY
* NCYL , NPLAN
  3 2
* (CYRAD(J), J=1, NCYL)
  50.0 50.2 52.0
* (PCOORD(3, J), J=1, NPLAN)
  -100.0 300.0
*MET
  1 2 1
*IRAYLR
*ECUT
*PCUT
*IEDFE
  1
* IQII IBETFG EINN NCASPB NBATCH ISFG JWATCH
  0 1 0.5 100000 10 0 0
*SOURCE
  5.0E-1 5.0E-1 1.0
*ISFG=1 point source
* X Y Z
  0.0 0.0 0.0
* UI VI WI
  0.0 0.64278 0.76604
* ICKCNT
  3
* DELTAE
  0.01
* ICKKMD
  2 3 4
* IFXCNT
  1
* IFLXP IQFLX
  3 0
* IFLXP=0
* XFLX YFLX ZYLX RRFLX HFLX THS THE
  0.0 0.0 58.6 50.3 2.2 0.0 0.0
* IFLXEG(1)
  19
* FLXEG
  0.00
  1.00E-02
  1.25E-02
  1.75E-02
  2.25E-02
  2.50E-02
  3.50E-02
  4.50E-02
  5.50E-02
  6.50E-02
  7.00E-02
  9.00E-02
  1.10E-01
  1.25E-01
  1.75E-01
  2.25E-01
  2.50E-01
  3.50E-01
  4.50E-01
  5.50E-01
* IFLXEG(2)
  0
* HOSEIS AFCT BFCT NAIPT
  1.0 0.0 0.0 0

```



D40T04MM.INP

```

ANGULER CHECK 40 DEG. 500keV  PB 4 mm
* PRESTA : 0=ON , 1=OFF
* ESTEPE : DATA OF ESTEP
* PRINT : 0=ALL , 1=EXCEPT ECNSV1 & NTALLY , 2=EXCEPT 1 & SPECTRUM
* PRESTA ESTEPE ECUT PCUT PRINT RAYLEIGHT
  0 0.0 0 0 2 0
* MATERIAL COUNT
  2
* MATERIAL NAME
AIR
PB
*GEOMETRY
* NCYL , NPLAN
  3 2
* (CYRAD(J), J=1, NCYL)
  50.0 50.4 52.0
* (PCOORD(3, J), J=1, NPLAN)
  -100.0 300.0
*MET
  1 2 1
*IRAYLR
*ECUT
*PCUT
*IEDFE
  1
* IQII IBETFG EINN NCASPB NBATCH ISFG JWATCH
  0 1 0.5 100000 10 0 0
*SOURCE
  5.0E-1 5.0E-1 1.0
*ISFG=1 point source
* X Y Z
  0.0 0.0 0.0
* UI VI WI
  0.0 0.64278 0.76604
* ICKCNT
  3
* DELTAE
  0.01
* ICKRMD
  2 3 4
* IFXCNT
  1
* IFLXP IQFLX
  3 0
* IFLXP=0
* XFLX YFLX ZYLX RRFLX HFLX THS THE
  0.0 0.0 58.6 50.5 2.2 0.0 0.0
* IFLXEG(1)
  19
* FLXEG
  0.00
  1.00E-02
  1.25E-02
  1.75E-02
  2.25E-02
  2.50E-02
  3.50E-02
  4.50E-02
  5.50E-02
  6.50E-02
  7.00E-02
  9.00E-02
  1.10E-01
  1.25E-01
  1.75E-01
  2.25E-01
  2.50E-01
  3.50E-01
  4.50E-01
  5.50E-01
* IFLXEG(2)
  0
* HOSEIS AFCT BFCT NAIPT
  1.0 0.0 0.0 0

```

D40T07MM.INP

```

ANGULER CHECK 40 DEG. 500keV  PB 7 mm
* PRESTA : 0=ON ,1=OFF
* ESTEPE : DATA OF ESTEP
* PRINT : 0=ALL ,1=EXCEPT ECNSV1 & NTALLY ,2=EXCEPT 1 & SPECTRUM
* PRESTA ESTEPE ECUT PCUT PRINT RAYLEIGHT
  0 0.0 0 0 2 0
* MATERIAL COUNT
  2
* MATERIAL NAME
AIR
PB
*GEOMETRY
* NCYL , NPLAN
  3 2
* (CYRAD(J),J=1,NCYL)
  50.0 50.7 52.0
* (PCOORD(3,J),J=1,NPLAN)
  -100.0 300.0
*MET
  1 2 1
*IRAYLR
*ECUT
*PCUT
*IEDFE
  1
* IQII IBETFG EINN NCASPB NBATCH ISFG JWATCH
  0 1 0.5 100000 10 0 0
*SOURCE
  5.0E-1 5.0E-1 1.0
*ISFG=1 point source
* X Y Z
  0.0 0.0 0.0
* UI VI WI
  0.0 0.64278 0.78604
* ICKCNT
  3
* DELTAE
  0.01
* ICKKMD
  2 3 4
* IFXCNT
  1
* IFLXP IQFLX
  3 0
* IFLXP=0
* XFLX YFLX ZYLX RRFLX HFLX THS THE
  0.0 0.0 58.6 50.8 2.2 0.0 0.0
* IFLXEG(1)
  19
* FLXEG
  0.00
  1.00E-02
  1.25E-02
  1.75E-02
  2.25E-02
  2.50E-02
  3.50E-02
  4.50E-02
  5.50E-02
  6.50E-02
  7.00E-02
  9.00E-02
  1.10E-01
  1.25E-01
  1.75E-01
  2.25E-01
  2.50E-01
  3.50E-01
  4.50E-01
  5.50E-01
* IFLXEG(2)
  0
* HOSEIS AFCT BFCT NAIPT
  1.0 0.0 0.0 0

```

D40T10MM.INP

```

ANGULER CHECK 40 DEG. 500keV  PB 10 mm
* PRESTA : 0=ON , 1=OFF
* ESTEPE : DATA OF ESTEP
* PRINT : 0=ALL , 1=EXCEPT ECNSV1 & NTALLY , 2=EXCEPT 1 & SPECTRUM
* PRESTA ESTEPE ECUT PCUT PRINT RAYLEIGHT
  0 0.0 0 0 2 0
* MATERIAL COUNT
  2
* MATERIAL NAME
AIR
PB
+GEOMETRY
* NCYL , NPLAN
  3 2
* (CYRAD(J), J=1, NCYL)
  50.0 51.0 52.0
* (PCOORD(3, J), J=1, NPLAN)
  -100.0 300.0
+MET
  1 2 1
+IRAYLR
+ECUT
+PCUT
+IEDFE
  1
* IQ11 IBETFG EINN NCASPB NBATCH ISFG JWATCH
  0 1 0.5 1000000 10 0 0
+SOURCE
  5.0E-1 5.0E-1 1.0
+ISFG=1 point source
* X Y Z
  0.0 0.0 0.0
* UI VI WI
  0.0 0.64278 0.76604
* ICKCNT
  3
+ DELTAE
  0.01
* ICKKMD
  2 3 4
* IFXCNT
  3
* IFLXP IQFLX
  3 0
* IFLXP=0
* XFLX YFLX ZYLY RRFLX HFLX THS THE
  0.0 0.0 60.4 51.1 1.0 0.0 0.0
* IFLXP IQFLX
  3 0
* IFLXP=0
* XFLX YFLX ZYLY RRFLX HFLX THS THE
  0.0 0.0 59.8 51.1 2.2 0.0 0.0
* IFLXP IQFLX
  3 0
* IFLXP=0
* XFLX YFLX ZYLY RRFLX HFLX THS THE
  0.0 0.0 58.6 51.1 2.2 0.0 0.0
* IFLXEG(1)
  19
* FLXEG
  0.00
  1.00E-02
  1.25E-02
  1.75E-02
  2.25E-02
  2.50E-02
  3.50E-02
  4.50E-02
  5.50E-02
  6.50E-02
  7.00E-02
  9.00E-02
  1.10E-01
  1.25E-01
  1.75E-01
  2.25E-01
  2.50E-01
  3.50E-01
  4.50E-01
  5.50E-01
* IFLXEG(2)
  0
* HOSEIS AFCT BFCT NAIPT
  1.0 0.0 0.0 0

```

D60T01MM.INP

```

ANGULER CHECK 60 DEG. 500keV  PB 1 mm
* PRESTA : 0=ON ,1=OFF
* ESTEPE : DATA OF ESTEP
* PRINT : 0=ALL ,1=EXCEPT ECNSV1 & NTALLY ,2=EXCEPT 1 & SPECTRUM
* PRESTA  ESTEPE  ECUT  PCUT  PRINT  RAYLEIGHT
  0 0.0 0 0 2 0
* MATERIAL COUNT
  2
* MATERIAL NAME
AIR
PB
*GEOMETRY
* NCYL , NPLAN
  3 2
* (CYRAD(J),J=1,NCYL)
  50.0 50.1 52.0
* (PCOORD(3,J),J=1,NPLAN)
  -100.0 300.0
*MET
  1 2 1
*IRAYLR
*ECUT
*PCUT
*IEDFE
  1
* IQII IBETFG EINN NCASPB NBATCH ISFG JWATCH
  0 1 0.5 100000 10 0 0
*SOURCE
  5.0E-1 5.0E-1 1.0
*ISFG=1 point source
* X Y Z
  0.0 0.0 0.0
* U1 V1 W1
  0.0 0.86603 0.5
* ICKCNT
  3
* DELTAE
  0.01
* ICKKMD
  2 3 4
* IFXCNT
  1
* IFLXP IQFLX
  3 0
* IFLXP=0
* XFLX YFLX ZYLX RRFLX HFLX THS THE
  0.0 0.0 28.3 50.2 1.2 0.0 0.0
* IFLXEG(1)
  19
* FLXEG
  0.00
  1.00E-02
  1.25E-02
  1.75E-02
  2.25E-02
  2.50E-02
  3.50E-02
  4.50E-02
  5.50E-02
  6.50E-02
  7.00E-02
  9.00E-02
  1.10E-01
  1.25E-01
  1.75E-01
  2.25E-01
  2.50E-01
  3.50E-01
  4.50E-01
  5.50E-01
* IFLXEG(2)
  0
* HOSEIS AFCT BFCT NAIPT
  1.0 0.0 0.0 0

```

D60T02MM.INP

```

ANGULER CHECK 60 DEG. 500keV  PB 2 mm
* PRESTA : 0=ON .1=OFF
* ESTEPE : DATA OF ESTEP
* PRINT : 0=ALL .1=EXCEPT ECNSV1 & NTALLY .2=EXCEPT 1 & SPECTRUM
* PRESTA ESTEPE ECUT PCUT PRINT RAYLEIGHT
  0 0.0 0 0 2 0
* MATERIAL COUNT
  2
* MATERIAL NAME
AIR
PB
*GEOMETRY
* NCYL , NPLAN
  3 2
* (CYRAD(J),J=1,NCYL)
  50.0 50.2 52.0
* (PCOORD(3,J),J=1,NPLAN)
  -100.0 300.0
*MET
  1 2 1
*IRAYLR
*ECUT
*PCUT
*IEDFE
  1
* IQI1 IBETFG EINN NCASPB NBATCH ISFG JWATCH
  0 1 0.5 100000 10 0 0
*SOURCE
  5.0E-1 5.0E-1 1.0
* ISFG=1 point source
* X Y Z
  0.0 0.0 0.0
* U1 V1 W1
  0.0 0.86603 0.5
* ICKCNT
  3
* DELTAE
  0.01
* ICKKMD
  2 3 4
* IFXCNT
  1
* IFLXP IQFLX
  3 0
* IFLXP=0
* XFLX YFLX ZYLX RRFLX HFLX THS THE
  0.0 0.0 28.3 50.3 1.2 0.0 0.0
* IFLXEG(1)
  19
* FLXEG
  0.00
  1.00E-02
  1.25E-02
  1.75E-02
  2.25E-02
  2.50E-02
  3.50E-02
  4.50E-02
  5.50E-02
  6.50E-02
  7.00E-02
  9.00E-02
  1.10E-01
  1.25E-01
  1.75E-01
  2.25E-01
  2.50E-01
  3.50E-01
  4.50E-01
  5.50E-01
* IFLXEG(2)
  0
* HOSEIS AFCT BFCT NAIPT
  1.0 0.0 0.0 0

```

D60T04MM.INP

```

ANGULER CHECK 60 DEG. 500keV  PB 4 mm
* PRESTA : 0=ON .1=OFF
* ESTEPE : DATA OF ESTEP
* PRINT : 0=ALL .1=EXCEPT ECNSV1 & NTALLY .2=EXCEPT 1 & SPECTRUM
* PRESTA ESTEPE ECUT PCUT PRINT RAYLEIGHT
  0 0.0 0 0 2 0
* MATERIAL COUNT
  2
* MATERIAL NAME
AIR
PB
*GEOMETRY
* NCYL , NPLAN
  3 2
* (CYRAD(J), J=1, NCYL)
  50.0 50.4 52.0
* (PCOORD(3, J), J=1, NPLAN)
  -100.0 300.0
*MET
  1 2 1
*IRAYLR
*ECUT
*PCUT
*IEDFE
  1
* IQII IBETFG EINN NCASPB NBATCH ISFG JWATCH
  0 1 0.5 100000 10 0 0
*SOURCE
  5.0E-1 5.0E-1 1.0
*ISFG=1 point source
* X Y Z
  0.0 0.0 0.0
* UI VI WI
  0.0 0.86603 0.5
* ICKCNT
  3
* DELTAE
  0.01
* ICKKMD
  2 3 4
* IFXCNT
  1
* IFLXP IQFLX
  3 0
* IFLXP=0
* XFLX YFLX ZYLX RRFLX HFLX THS THE
  0.0 0.0 28.3 50.5 1.2 0.0 0.0
* IFLXEG(1)
  19
* FLXEG
  0.00
  1.00E-02
  1.25E-02
  1.75E-02
  2.25E-02
  2.50E-02
  3.50E-02
  4.50E-02
  5.50E-02
  6.50E-02
  7.00E-02
  9.00E-02
  1.10E-01
  1.25E-01
  1.75E-01
  2.25E-01
  2.50E-01
  3.50E-01
  4.50E-01
  5.50E-01
* IFLXEG(2)
  0
* HOSEIS AFCT BFCT NAIPT
  1.0 0.0 0.0 0

```

D60T07MM.INP

```

ANGULER CHECK 60 DEG. 500keV  PB 7 mm
* PRESTA : 0=ON ,1=OFF
* ESTEPE : DATA OF ESTEP
* PRINT : 0=ALL ,1=EXCEPT ECNSV1 & NTALLY ,2=EXCEPT 1 & SPECTRUM
* PRESTA ESTEPE ECUT PCUT PRINT RAYLEIGHT
  0 0.0 0 0 2 0
* MATERIAL COUNT
  2
* MATERIAL NAME
AIR
PB
*GEOMETRY
* NCYL , NPLAN
  3 2
* (CYRAD(J), J=1, NCYL)
  50.0 50.7 52.0
* (PCOORD(3, J), J=1, NPLAN)
  -100.0 300.0
*MET
  1 2 1
*IRAYLR
*ECUT
*PCUT
*IEDFE
  1
* IQII IBETFG EINN NCASPB NBATCH ISFG JWATCH
  0 1 0.5 100000 10 0 0
*SOURCE
  5.0E-1 5.0E-1 1.0
*ISFG=1 point source
* X Y Z
  0.0 0.0 0.0
* UI VI WI
  0.0 0.86603 0.5
* ICKCNT
  3
* DELTAE
  0.01
* ICKKMD
  2 3 4
* IFLXNT
  1
* IFLXP IQFLX
  3 0
* IFLXP=0
* XFLX YFLX ZYLX RRFLX HFLX THS THE
  0.0 0.0 28.3 50.8 1.2 0.0 0.0
* IFLXEG(1)
  19
* FLXEG
  0.00
  1.00E-02
  1.25E-02
  1.75E-02
  2.25E-02
  2.50E-02
  3.50E-02
  4.50E-02
  5.50E-02
  6.50E-02
  7.00E-02
  9.00E-02
  1.10E-01
  1.25E-01
  1.75E-01
  2.25E-01
  2.50E-01
  3.50E-01
  4.50E-01
  5.50E-01
* IFLXEG(2)
  0
* NOSEIS AFCT BFCT NAIPT
  1.0 0.0 0.0 0

```

D60T10MM.INP

```

ANGULER CHECK 60 DEG. 500keV  PB 10 mm
* PRESTA : 0=ON ,1=OFF
* ESTEPE : DATA OF ESTEP
* PRINT : 0=ALL ,1=EXCEPT ECNSV1 & NTALLY ,2=EXCEPT 1 & SPECTRUM
* PRESTA ESTEPE ECUT PCUT PRINT RAYLEIGHT
  0 0.0 0 0 2 0
* MATERIAL COUNT
  2
* MATERIAL NAME
AIR
PB
* GEOMETRY
* NCYL , NPLAN
  3 2
* (CYRAD(J), J=1, NCYL)
  50.0 51.0 52.0
* (PCOORD(3, J), J=1, NPLAN)
  -100.0 300.0
* MET
  1 2 1
* IRAYLR
* ECUT
* PCUT
* IEDFE
  1
* IQII IBETFG EINN NCASPB NBATCH ISFG JWATCH
  0 1 0.5 1000000 10 0 0
* SOURCE
  5.0E-1 5.0E-1 1.0
* ISFG=1 point source
* X Y Z
  0.0 0.0 0.0
* U1 V1 W1
  0.0 0.86603 0.5
* ICKCNT
  3
* DELTAE
  0.01
* ICKKMD
  2 3 4
* IFXCNT
  3
* IFLXP IQFLX
  3 0
* IFLXP=0
* XFLX YFLX ZYLY RRFLX HFLX THS THE
  0.0 0.0 29.0 51.1 1.0 0.0 0.0
* IFLXP IQFLX
  3 0
* IFLXP=0
* XFLX YFLX ZYLY RRFLX HFLX THS THE
  0.0 0.0 28.9 51.1 1.2 0.0 0.0
* IFLXP IQFLX
  3 0
* IFLXP=0
* XFLX YFLX ZYLY RRFLX HFLX THS THE
  0.0 0.0 28.3 51.1 1.2 0.0 0.0
* IFLXEG(1)
  19
* FLXEG
  0.00
  1.00E-02
  1.25E-02
  1.75E-02
  2.25E-02
  2.50E-02
  3.50E-02
  4.50E-02
  5.50E-02
  6.50E-02
  7.00E-02
  9.00E-02
  1.10E-01
  1.25E-01
  1.75E-01
  2.25E-01
  2.50E-01
  3.50E-01
  4.50E-01
  5.50E-01
* IFLXEG(2)
  0
* HOSEIS AFCT BFCT NAIPT
  1.0 0.0 0.0 0

```



D90T01MM.INP

```

ANGULER CHECK 90 DEG. 500keV  PB 1 mm
* PRESTA : 0=ON ,1=OFF
* ESTEPE : DATA OF ESTEP
* PRINT : 0=ALL ,1=EXCEPT ECNSV1 & NTALLY ,2=EXCEPT 1 & SPECTRUM
* PRESTA ESTEPE ECUT PCUT PRINT RAYLEIGHT
  0 0.0 0 0 2 0
* MATERIAL COUNT
  2
* MATERIAL NAME
AIR
PB
*GEOMETRY
* NCYL , NPLAN
  3 2
* (CYRAD(J),J=1,NCYL)
  50.0 50.1 52.0
* (PCOORD(3,J),J=1,NPLAN)
  -100.0 300.0
*MET
  1 2 1
*IRAYLR
*ECUT
*PCUT
*IEDFE
  1
* IQII IBETFG EINN NCASPB NBATCH ISFG JWATCH
  0 1 0.5 100000 10 0 0
*SOURCE
  5.0E-1 5.0E-1 1.0
*ISFG=1 point source
* X Y Z
  0.0 0.0 0.0
* UI VI WI
  0.0 1.0 0.0
* ICKCNT
  3
* DELTAE
  0.01
* ICKKMD
  2 3 4
* IFXCNT
  1
* IFLXP IQFLX
  3 0
* IFLXP=0
* XFLX YFLX ZYLX RRFLX HFLX TMS THE
  0.0 0.0 -0.5 50.2 1.0 0.0 0.0
* IFLXEG(1)
  19
* FLXEG
  0.00
  1.00E-02
  1.25E-02
  1.75E-02
  2.25E-02
  2.50E-02
  3.50E-02
  4.50E-02
  5.50E-02
  6.50E-02
  7.00E-02
  9.00E-02
  1.10E-01
  1.25E-01
  1.75E-01
  2.25E-01
  2.50E-01
  3.50E-01
  4.50E-01
  5.50E-01
* IFLXEG(2)
  0
* HOSEIS AFCT BFCT NAIPT
  1.0 0.0 0.0 0

```

D90T02MM.INP

```

ANGULER CHECK 90 DEG. 500keV  PB 2 mm
* PRESTA : 0=ON ,1=OFF
* ESTEPE : DATA OF ESTEP
* PRINT : 0=ALL ,1=EXCEPT ECNSV1 & NTALLY ,2=EXCEPT 1 & SPECTRUM
* PRESTA ESTEPE ECUT PCUT PRINT RAYLEIGHT
  0 0.0 0 0 2 0
* MATERIAL COUNT
  2
* MATERIAL NAME
AIR
PB
*GEOMETRY
* NCYL , NPLAN
  3 2
* (CYRAD(J), J=1, NCYL)
  50.0 50.2 52.0
* (PCOORD(3, J), J=1, NPLAN)
  -100.0 300.0
*MET
  1 2 1
*IRAYLR
*ECUT
*PCUT
*IEDFE
  1
* IQII IBETFG EINN NCASPB NBATCH ISFG JWATCH
  0 1 0.5 100000 10 0 0
*SOURCE
  5.0E-1 5.0E-1 1.0
*ISFG=1 point source
* X Y Z
  0.0 0.0 0.0
* U1 V1 W1
  0.0 1.0 0.0
* ICKCNT
  3
* DELTAE
  0.01
* ICKKMD
  2 3 4
* IFXCNT
  1
* IFLXP IQFLX
  3 0
* IFLXP=0
* XFLX YFLX ZYLX RRFLX HFLX THS THE
  0.0 0.0 -0.5 50.3 1.0 0.0 0.0
* IFLXEG(1)
  19
* FLXEG
  0.00
  1.00E-02
  1.25E-02
  1.75E-02
  2.25E-02
  2.50E-02
  3.50E-02
  4.50E-02
  5.50E-02
  6.50E-02
  7.00E-02
  9.00E-02
  1.10E-01
  1.25E-01
  1.75E-01
  2.25E-01
  2.50E-01
  3.50E-01
  4.50E-01
  5.50E-01
* IFLXEG(2)
  0
* HOSEIS AFCT BFCT NAIPT
  1.0 0.0 0.0 0

```

D90T04MM. INP

```

ANGULER CHECK 90 DEG. 500keV  PB 4 mm
* PRESTA : 0=ON .1=OFF
* ESTEPE : DATA OF ESTEP
* PRINT : 0=ALL .1=EXCEPT ECNSV1 & NTALLY .2=EXCEPT 1 & SPECTRUM
* PRESTA ESTEPE ECUT PCUT PRINT RAYLEIGHT
  0 0.0 0 0 2 0
* MATERIAL COUNT
  2
* MATERIAL NAME
AIR
PB
* GEOMETRY
* NCYL , NPLAN
  3 2
* (CYRAD(J), J=1, NCYL)
  50.0 50.4 52.0
* (PCOORD(3, J), J=1, NPLAN)
 -100.0 300.0
* MET
  1 2 1
* IRAYLR
* ECUT
* PCUT
* IEDFE
  1
* IQII IBETFG EINN NCASPB NBATCH ISFG JWATCH
  0 1 0.5 100000 10 0 0
* SOURCE
  5.0E-1 5.0E-1 1.0
* ISFG=1 point source
* X Y Z
  0.0 0.0 0.0
* UI VI WI
  0.0 1.0 0.0
* ICKCNT
  3
* DELTAE
  0.01
* ICKKMD
  2 3 4
* IFXCNT
  1
* IFLXP IQFLX
  3 0
* IFLXP=0
* XFLX YFLX ZYLX RRFLX HFLX THS THE
  0.0 0.0 -0.5 50.5 1.0 0.0 0.0
* IFLXEG(1)
  19
* FLXEG
  0.00
  1.00E-02
  1.25E-02
  1.75E-02
  2.25E-02
  2.50E-02
  3.50E-02
  4.50E-02
  5.50E-02
  6.50E-02
  7.00E-02
  9.00E-02
  1.10E-01
  1.25E-01
  1.75E-01
  2.25E-01
  2.50E-01
  3.50E-01
  4.50E-01
  5.50E-01
* IFLXEG(2)
  0
* HOSEIS AFCT BFCT NAIPT
  1.0 0.0 0.0 0

```

D90T07MM.INP

```

ANGULER CHECK 90 DEG. 508keV  PB 7 mm
* PRESTA : 0=ON ,1=OFF
* ESTEPE : DATA OF ESTEP
* PRINT : 0=ALL ,1=EXCEPT ECNSV1 & NTALLY ,2=EXCEPT 1 & SPECTRUM
* PRESTA ESTEPE ECUT PCUT PRINT RAYLEIGHT
  0 0.0 0 0 2 0
* MATERIAL COUNT
  2
* MATERIAL NAME
AIR
PB
*GEOMETRY
* NCYL , NPLAN
  3 2
* (CYRAD(J),J=1,NCYL)
  50.0 50.7 52.0
* (PCOORD(3,J),J=1,NPLAN)
  -100.0 300.0
*MET
  1 2 1
*IRAYLR
*ECUT
*PCUT
*IEDFE
  1
* IQII IBETFG EINN NCASPB NBATCH ISFG JWATCH
  0 1 0.5 100000 10 0 0
*SOURCE
  5.0E-1 5.0E-1 1.0
*ISFG=1 point source
* X Y Z
  0.0 0.0 0.0
* UI VI WI
  0.0 1.0 0.0
* ICKCNT
  3
* DELTAE
  0.01
* ICKKMD
  2 3 4
* IFXCNT
  1
* IFLXP IQFLX
  3 0
* IFLXP=0
* XFLX YFLX ZYLX RRFLX HFLX THS THE
  0.0 0.0 -0.5 50.8 1.0 0.0 0.0
* IFLXEG(1)
  19
* FLXEG
  0.00
  1.00E-02
  1.25E-02
  1.75E-02
  2.25E-02
  2.50E-02
  3.50E-02
  4.50E-02
  5.50E-02
  6.50E-02
  7.00E-02
  9.00E-02
  1.10E-01
  1.25E-01
  1.75E-01
  2.25E-01
  2.50E-01
  3.50E-01
  4.50E-01
  5.50E-01
* IFLXEG(2)
  0
* HOSEIS AFCT BFCT NAIPT
  1.0 0.0 0.0 0

```

D90T10MM.INP

```

ANGULER CHECK 90 DEG. 500keV  PB 10 mm
* PRESTA : 0=ON ,1=OFF
* ESTEPE : DATA OF ESTEP
* PRINT : 0=ALL ,1=EXCEPT ECNSV1 & NTALLY ,2=EXCEPT 1 & SPECTRUM
* PRESTA ESTEPE ECUT PCUT PRINT RAYLEIGHT
  0 0.0 0 0 2 0
* MATERIAL COUNT
  2
* MATERIAL NAME
AIR
PB
*GEOMETRY
* NCYL , NPLAN
  3 2
* (CYRAD(J), J=1, NCYL)
  50.0 51.0 52.0
* (PCOORD(3, J), J=1, NPLAN)
  -100.0 300.0
*MET
  1 2 1
*IRAYLR
*ECUT
*PCUT
*IEDFE
  1
* IQII IBETFG EINN NCASPB NBATCH ISFG JWATCH
  0 1 0.5 1000000 10 0 0
*SOURCE
  5.0E-1 5.0E-1 1.0
*ISFG=1 point source
* X Y Z
  0.0 0.0 0.0
* UI VI WI
  0.0 1.0 0.0
* ICKCNT
  3
* DELTAE
  0.01
* ICKKMD
  2 3 4
* IFCNT
  1
* IFLXP IQFLX
  3 0
* IFLXP=0
* XFLX YFLX ZYLY RRFLX HFLX THS THE
  0.0 0.0 -0.5 51.1 1.0 0.0 0.0
* IFLXEG(1)
  19
* FLXEG
  0.00
  1.00E-02
  1.25E-02
  1.75E-02
  2.25E-02
  2.50E-02
  3.50E-02
  4.50E-02
  5.50E-02
  6.50E-02
  7.00E-02
  9.00E-02
  1.10E-01
  1.25E-01
  1.75E-01
  2.25E-01
  2.50E-01
  3.50E-01
  4.50E-01
  5.50E-01
* IFLXEG(2)
  0
* HOSEIS AFCT BFCT NALPT
  1.0 0.0 0.0 0

```

DOOTO1MM.INP

```

ANGULER CHECK ISO 500keV PB 1 mm
* PRESTA : 0=ON ,1=OFF
* ESTEPE : DATA OF ESTEP
* PRINT : 0=ALL ,1=EXCEPT ECNSV1 & NTALLY ,2=EXCEPT 1 & SPECTRUM
* PRESTA ESTEPE ECUT PCUT PRINT RAYLEIGHT
  0 0.0 0 0 2 0
* MATERIAL COUNT
  2
* MATERIAL NAME
AIR
PB
*GEOMETRY
* NCYL , NPLAN
  3 2
* (CYRAD(J), J=1, NCYL)
  50.0 50.1 52.0
* (PCOORD(3, J), J=1, NPLAN)
  -100.0 310.0
*MET
  1 2 1
*IRAYLR
*ECUT
*PCUT
*IEDFE
  1
* IQII IBETFG EINN NCASPB NBATCH ISFG JWATCH
  0 1 0.5 1000000 10 0 0
+SOURCE
  5.0E-1 5.0E-1 1.0
*ISFG=1 point source
* X Y Z
  0.0 0.0 0.0
* U1 V1 W1
  0.0 0.0 0.0
* ICKCNT
  3
* DELTAE
  0.01
* ICKKMD
  2 3 4
* IFXCNT
  4
* IFLXP IQFLX
  3 0
* IFLXP=0
* XFLX YFLX ZYLY RRFLX HFLX THS THE
  0.0 0.0 284.2 50.2 1.0 0.0 0.0
* IFLXP IQFLX
  3 0
* IFLXP=0
* XFLX YFLX ZYLY RRFLX HFLX THS THE
  0.0 0.0 59.3 50.2 1.0 0.0 0.0
* IFLXP IQFLX
  3 0
* IFLXP=0
* XFLX YFLX ZYLY RRFLX HFLX THS THE
  0.0 0.0 28.5 50.2 1.0 0.0 0.0
* IFLXP IQFLX
  3 0
* IFLXP=0
* XFLX YFLX ZYLY RRFLX HFLX THS THE
  0.0 0.0 -0.5 50.2 1.0 0.0 0.0
* IFLXEG(1)
  19
* FLXEG
  0.00
  1.00E-02
  1.25E-02
  1.75E-02
  2.25E-02
  2.50E-02
  3.50E-02
  4.50E-02
  5.50E-02
  6.50E-02
  7.00E-02
  9.00E-02
  1.10E-01
  1.25E-01
  1.75E-01
  2.25E-01
  2.50E-01
  3.50E-01
  4.50E-01
  5.50E-01
* IFLXEG(2)

```

D00T01MM. INP

	0			
*	HOSEIS	AFCT	BFCT	NAIPT
	1.0	0.0	0.0	0

DOO02MM.INP

```

ANGULER CHECK ISO 500keV PB 2 mm
* PRESTA : 0=ON ,1=OFF
* ESTEPE : DATA OF ESTEP
* PRINT : 0=ALL ,1=EXCEPT ECNSV1 & NTALLY ,2=EXCEPT 1 & SPECTRUM
* PRESTA ESTEPE ECUT PCUT PRINT RAYLEIGHT
  0 0.0 0 0 2 0
* MATERIAL COUNT
  2
* MATERIAL NAME
AIR
PB
*GEOMETRY
* NCYL , NPLAN
  3 2
* (CYRAD(J), J=1, NCYL)
  50.0 50.2 52.0
* (PCOORD(3, J), J=1, NPLAN)
  -100.0 310.0
*MET
  1 2 1
*IRAYLR
*ECUT
*PCUT
*IEDFE
  1
* IQII IBETFG EINN NCASPB NBATCH ISFG JWATCH
  0 1 0.5 1000000 10 0 0
*SOURCE
  5.0E-1 5.0E-1 1.0
*ISFG=1 point source
* X Y Z
  0.0 0.0 0.0
* UI VI WI
  0.0 0.0 0.0
* ICKCNT
  3
* DELTAE
  0.01
* ICKKMD
  2 3 4
* IFXCNT
  4
* IFLXP IQFLX
  3 0
* IFLXP=0
* XFLX YFLX ZYLYX RRFLX HFLX THS THE
  0.0 0.0 284.8 50.3 1.0 0.0 0.0
* IFLXP IQFLX
  3 0
* IFLXP=0
* XFLX YFLX ZYLYX RRFLX HFLX THS THE
  0.0 0.0 59.4 50.3 1.0 0.0 0.0
* IFLXP IQFLX
  3 0
* IFLXP=0
* XFLX YFLX ZYLYX RRFLX HFLX THS THE
  0.0 0.0 28.5 50.3 1.0 0.0 0.0
* IFLXP IQFLX
  3 0
* IFLXP=0
* XFLX YFLX ZYLYX RRFLX HFLX THS THE
  0.0 0.0 -0.5 50.3 1.0 0.0 0.0
* IFLXEG(1)
  19
* FLXEG
  0.00
  1.00E-02
  1.25E-02
  1.75E-02
  2.25E-02
  2.50E-02
  3.50E-02
  4.50E-02
  5.50E-02
  6.50E-02
  7.00E-02
  9.00E-02
  1.10E-01
  1.25E-01
  1.75E-01
  2.25E-01
  2.50E-01
  3.50E-01
  4.50E-01
  5.50E-01
* IFLXEG(2)

```



DOOT02MM.INP

0				
* HOSEIS	AFCT	BFCT	NAIPT	
1.0	0.0	0.0	0	

D00T04MM.INP

```

ANGULER CHECK ISO 500keV PB 4 **
* PRESTA : 0=ON .1=OFF
* ESTEPE : DATA OF ESTEP
* PRINT : 0=ALL .1=EXCEPT ECNSV1 & NTALLY .2=EXCEPT 1 & SPECTRUM
* PRESTA ESTEPE ECUT PCUT PRINT RAYLEIGHT
  0 0.0 0 0 2 0
* MATERIAL COUNT
  2
* MATERIAL NAME
AIR
PB
*GEOMETRY
* NCYL , NPLAN
  3 2
* (CYRAD(J),J=1,NCYL)
  50.0 50.4 52.0
* (PCOORD(J,J),J=1,NPLAN)
  -100.0 310.0
*MET
  1 2 1
*IRAYLR
*ECUT
*PCUT
*IEDFE
  1
* IQII IBETFG EINN NCASPB NBATCH ISFG JWATCH
  0 1 0.5 1000000 10 0 0
*SOURCE
  5.0E-1 5.0E-1 1.0
*ISFG=1 point source
* X Y Z
  0.0 0.0 0.0
* UI VI WI
  0.0 0.0 0.0
* ICKCNT
  3
* DELTAE
  0.01
* ICKKMD
  2 3 4
* IFCNT
  4
* IFLXP IQFLX
  3 0
* IFLXP=0
* XFLX YFLX ZYLY RRFLX HFLX THS THE
  0.0 0.0 285.9 50.5 1.0 0.0 0.0
* IFLXP IQFLX
  3 0
* IFLXP=0
* XFLX YFLX ZYLY RRFLX HFLX THS THE
  0.0 0.0 59.7 50.5 1.0 0.0 0.0
* IFLXP IQFLX
  3 0
* IFLXP=0
* XFLX YFLX ZYLY RRFLX HFLX THS THE
  0.0 0.0 28.7 50.5 1.0 0.0 0.0
* IFLXP IQFLX
  3 0
* IFLXP=0
* XFLX YFLX ZYLY RRFLX HFLX THS THE
  0.0 0.0 -0.5 50.5 1.0 0.0 0.0
* IFLXEG(1)
  19
* FLXEG
  0.00
  1.00E-02
  1.25E-02
  1.75E-02
  2.25E-02
  2.50E-02
  3.50E-02
  4.50E-02
  5.50E-02
  6.50E-02
  7.00E-02
  9.00E-02
  1.10E-01
  1.25E-01
  1.75E-01
  2.25E-01
  2.50E-01
  3.50E-01
  4.50E-01
  5.50E-01
* IFLXEG(2)

```

D00T04MM.INP

*	<sup>0</sup>			
	HOSEIS	AFCT	BFCT	NAIPT
	1.0	0.0	0.0	0

DOCT07MM.INP

```

ANGULER CHECK ISO 500keV PB 7 mm
* PRESTA : 0=ON ,1=OFF
* ESTEPE : DATA OF ESTEP
* PRINT : 0=ALL ,1=EXCEPT ECNSV1 & NTALLY ,2=EXCEPT 1 & SPECTRUM
* PRESTA ESTEPE ECUT PCUT PRINT RAYLEIGHT
  0 0.0 0 0 2 0
* MATERIAL COUNT
  2
* MATERIAL NAME
AIR
PB
*GEOMETRY
* NCYL , NPLAN
  3 2
* (CYRAD(J), J=1, NCYL)
  50.0 50.7 52.0
* (PCOORD(3, J), J=1, NPLAN)
  -100.0 310.0
*MET
  1 2 1
*IRAYLR
*ECUT
*PCUT
*IEDFE
  1
* IQII IBETFG EINN NCASPB NBATCH ISFG JWATCH
  0 1 0.5 1000000 10 0 0
+SOURCE
  5.0E-1 5.0E-1 1.0
*ISFG=1 point source
* X Y Z
  0.0 0.0 0.0
* UI VI WI
  0.0 0.0 0.0
* ICKCNT
  3
* DELTAE
  0.01
* ICKKMD
  2 3 4
* IFXCNT
  4
* IFLXP IQFLX
  3 0
* IFLXP=0
* XFLX YFLX ZYLY RRFLX HFLX THS THE
  0.0 0.0 287.6 50.8 1.0 0.0 0.0
* IFLXP IQFLX
  3 0
* IFLXP=0
* XFLX YFLX ZYLY RRFLX HFLX THS THE
  0.0 0.0 60.0 50.8 1.0 0.0 0.0
* IFLXP IQFLX
  3 0
* IFLXP=0
* XFLX YFLX ZYLY RRFLX HFLX THS THE
  0.0 0.0 28.8 50.8 1.0 0.0 0.0
* IFLXP IQFLX
  3 0
* IFLXP=0
* XFLX YFLX ZYLY RRFLX HFLX THS THE
  0.0 0.0 -0.5 50.8 1.0 0.0 0.0
* IFLXEG(1)
  19
* FLXEG
  0.00
  1.00E-02
  1.25E-02
  1.75E-02
  2.25E-02
  2.50E-02
  3.50E-02
  4.50E-02
  5.50E-02
  6.50E-02
  7.00E-02
  9.00E-02
  1.10E-01
  1.25E-01
  1.75E-01
  2.25E-01
  2.50E-01
  3.50E-01
  4.50E-01
  5.50E-01
* IFLXEG(2)

```

DOOT07MM.INP

*	<sup>0</sup> HOSEIS	AFCT	BFCT	NAIPT
	1.0	0.0	0.0	0

DDOT10MM.INP

```

ANGULER CHECK ISO 500keV PB 10 mm
* PRESTA : 0=ON ,1=OFF
* ESTEPE : DATA OF ESTEP
* PRINT : 0=ALL ,1=EXCEPT ECNSV1 & NTALLY ,2=EXCEPT 1 & SPECTRUM
* PRESTA ESTEPE ECUT PCUT PRINT RAYLEIGHT
  0 0.0 0 0 2 0
* MATERIAL COUNT
  2
* MATERIAL NAME
AIR
PB
*GEOMETRY
* NCYL , NPLAN
  3 2
* (CYRAD(J), J=1, NCYL)
  50.0 51.0 52.0
* (PCOORD(3, J), J=1, NPLAN)
  -100.0 310.0
*MET
  1 2 1
*IRAYLR
*ECUT
*PCUT
*IEDFE
  1
* IQII IBETFG EINN NCASPB NBATCH ISFG JWATCH
  0 1 0.5 1000000 10 0 0
*SOURCE
  5.0E-1 5.0E-1 1.0
*ISFG=1 point source
* X Y Z
  0.0 0.0 0.0
* UI VI WI
  0.0 0.0 0.0
* ICKCNT
  3
* DELTAE
  0.01
* ICKKMD
  2 3 4
* IFXCNT
  4
* IFLXP IQFLX
  3 0
* IFLXP=0
* XFLX YFLX ZYLY RRFLX HFLX THS THE
  0.0 0.0 289.3 51.1 1.0 0.0 0.0
* IFLXP IQFLX
  3 0
* IFLXP=0
* XFLX YFLX ZYLY RRFLX HFLX THS THE
  0.0 0.0 60.4 51.1 1.0 0.0 0.0
* IFLXP IQFLX
  3 0
* IFLXP=0
* XFLX YFLX ZYLY RRFLX HFLX THS THE
  0.0 0.0 29.0 51.1 1.0 0.0 0.0
* IFLXP IQFLX
  3 0
* IFLXP=0
* XFLX YFLX ZYLY RRFLX HFLX THS THE
  0.0 0.0 -0.5 51.1 1.0 0.0 0.0
* IFLXEG(1)
  19
* FLXEG
  0.00
  1.00E-02
  1.25E-02
  1.75E-02
  2.25E-02
  2.50E-02
  3.50E-02
  4.50E-02
  5.50E-02
  6.50E-02
  7.00E-02
  9.00E-02
  1.10E-01
  1.25E-01
  1.75E-01
  2.25E-01
  2.50E-01
  3.50E-01
  4.50E-01
  5.50E-01
* IFLXEG(2)

```

DOOT10MM.INP

```
      0
* HOSEIS AFCT BFCT NAIP
  1.0   0.0  0.0  0
```

## 付録4 EGS4コードの出力データ例

以下に、線源エネルギー500keVの出力データの例を示す。

ファイル名	線源角度 (度)	遮蔽厚 (鉛 mm)
D90T01MM.OUT	90	1
D00T10MM.OUT	等方	10



D90T01MM.OUT

```

<<<<< ANGULER CHECK 90 DEG. 500keV PB 1 mm >>>>>
<<<<< * PRESTA : 0=ON ,1=OFF >>>>>
<<<<< * ESTEPE : DATA OF ESTEP >>>>>
<<<<< * PRINT : 0=ALL ,1=EXCEPT ECNSV1 & NTALLY ,2=EXCEPT 1 & SPECTRUM >>>>>
<<<<< * PRESTA ESTEPE ECUT PCUT PRINT HAYLEIGHT >>>>>
<<<<< 0 0.0 0 0 2 0 >>>>>
<<<<< * MATERIAL COUNT >>>>>
<<<<< 2 >>>>>
<<<<< * MATERIAL NAME >>>>>
<<<<< AIR >>>>>
<<<<< PB >>>>>
<<<<< *GEOMETRY >>>>>
<<<<< * NCYL , NPLAN >>>>>
<<<<< 3 2 >>>>>
<<<<< * (CYRAD(J),J=1,NCYL) >>>>>
<<<<< 50.0 50.1 52.0 >>>>>
<<<<< * (PCOORD(J,J),J=1,NPLAN) >>>>>
<<<<< -100.0 300.0 >>>>>
<<<<< *MET >>>>>
<<<<< 1 2 1 >>>>>
<<<<< *IRAYLR >>>>>
<<<<< *ECUT >>>>>
<<<<< *PCUT >>>>>
<<<<< *IEDFE >>>>>
<<<<< 1 >>>>>
<<<<< * IQ11 IBETFG EINN NCASPB NBATCH ISFG JWATCH >>>>>
<<<<< 0 1 0.5 100000 10 0 0 >>>>>
<<<<< *SOURCE >>>>>
<<<<< 5.0E-1 5.0E-1 1.0 >>>>>
<<<<< *ISFG=i point source >>>>>
<<<<< * X Y Z >>>>>
<<<<< 0.0 0.0 0.0 >>>>>
<<<<< * U1 V1 W1 >>>>>
<<<<< 0.0 1.0 0.0 >>>>>
<<<<< * ICKCNT >>>>>
<<<<< 3 >>>>>
<<<<< * DELTAE >>>>>
<<<<< 0.01 >>>>>
<<<<< * ICKKMD >>>>>
<<<<< 2 3 4 >>>>>
<<<<< * IFXCNT >>>>>
<<<<< 1 >>>>>
<<<<< * IFLXP IQFLX >>>>>
<<<<< 3 0 >>>>>
<<<<< * IFLXP=0 >>>>>
<<<<< * XFLX YFLX ZYLX RRFLX HFLX THS THE >>>>>
<<<<< 0.0 0.0 -0.5 50.2 1.0 0.0 0.0 >>>>>
<<<<< * IFLXEG(1) >>>>>
<<<<< 19 >>>>>
<<<<< * FLXEG >>>>>
<<<<< 0.00 >>>>>
<<<<< 1.00E-02 >>>>>
<<<<< 1.25E-02 >>>>>
<<<<< 1.75E-02 >>>>>
<<<<< 2.25E-02 >>>>>
<<<<< 2.50E-02 >>>>>
<<<<< 3.50E-02 >>>>>
<<<<< 4.50E-02 >>>>>
<<<<< 5.50E-02 >>>>>
<<<<< 6.50E-02 >>>>>
<<<<< 7.00E-02 >>>>>
<<<<< 9.00E-02 >>>>>
<<<<< 1.10E-01 >>>>>
<<<<< 1.25E-01 >>>>>
<<<<< 1.75E-01 >>>>>
<<<<< 2.25E-01 >>>>>
<<<<< 2.50E-01 >>>>>
<<<<< 3.50E-01 >>>>>
<<<<< 4.50E-01 >>>>>
<<<<< 5.50E-01 >>>>>
<<<<< * IFLXEG(2) >>>>>
<<<<< 0 >>>>>
<<<<< * HOSEIS AFCT BFCT NAIPT >>>>>
<<<<< 1.0 0.0 0.0 0 >>>>>
LANGULER CHECK 90 DEG. 500keV PB 1 mm

```

```

*****
**** IPRSFG= 0 ****
**** PRESTA ON ****
**** DATA OF ESTEPE= .000 ****
**** IECUTF= 0 ****
**** DEFAULT ECUT ENERGY 0.521 MEV ****
**** IPCUTF= 0 ****

```

D90T01MM.OUT

```

*****  DEFAULT PCUT ENERGY 0.01  MEV  *****
*****
*****  IDBGFG= 2  *****
*****  DEBUG FLAG OFF  *****
*****
*****  IRAYFG= 0  *****
*****  RAYLEIGHT FLAG OFF  *****
*****
*****
*****  *****
*****  NMED = 2 : NUMBER OF MEDIA  *****
*****  1  AIR  *****
*****  2  PB  *****
*****
*****  NCYL = 3 : NUMBER OF CYLINDER  *****
*****  NPLAN= 2 : NUMBER OF PLANES  *****
*****  NREG = 6 : NUMBER OF REGIONS  *****
*****  (INCLUDING OUTSIDE VACUUM REGION)  *****
*****
*****  NO.  RADIUS(CM)  *****
*****  1  50.000  *****
*****  2  50.100  *****
*****  3  52.000  *****
*****
*****  NO.  HIEGHT(CM)  *****
*****  1  -100.000  *****
*****  2  300.000  *****
*****
*****
***  GEOMETRY  ***
*****
NCYL=  1  2  3
NPLAN  1  2  1
***  K-EGDE FLAG OFF  ***
EGS SUCCESSFULLY 'HATCHED' FOR  2  MEDIA.
1 *****
QUANTITIES ASSOCIATED WITH EACH MEDIA:

```

```

AIR
RHO= .1205000E-02 G/CM**3      RLC= 30383.50      CM
AE= .5210000      MEV      UE= 10.00000      MEV
AP= .1000000E-02 MEV      UP= 10.00000      MEV

PB
RHO= 11.40000      G/CM**3      RLC= .5587660      CM
AE= .5210000      MEV      UE= 10.00000      MEV
AP= .1000000E-02 MEV      UP= 10.00000      MEV
*****

```

INFORMATION OF MEDIUM AND CUT-OFF FOR EACH REGION

```

MEDIUM( 1)=VACUUM      ECUT=.00000E+00 MEV, PCUT=.00000E+00 MEV
MEDIUM( 2)=AIR      ECUT=.52100      MEV, PCUT=.10000E-01 MEV
MEDIUM( 3)=PB      ECUT=.52100      MEV, PCUT=.10000E-01 MEV
MEDIUM( 4)=AIR      ECUT=.52100      MEV, PCUT=.10000E-01 MEV
MEDIUM( 5)=VACUUM      ECUT=.00000E+00 MEV, PCUT=.00000E+00 MEV
MEDIUM( 6)=VACUUM      ECUT=.00000E+00 MEV, PCUT=.00000E+00 MEV
*****

```

1 \*\*\*\*\*  
PCOORD AND PNORM VALUES FOR EACH J-PLANE (I=1,3):

```

  1  .0000000E+00  .0000000E+00  -100.0000  .0000000E+00  .0000000E+00  1.000000
  2  .0000000E+00  .0000000E+00  300.0000  .0000000E+00  .0000000E+00  1.000000

```

CYLINDER RADII

```

I=  1  CYRAD(1)=  50.000  CM
I=  2  CYRAD(1)=  50.100  CM
I=  3  CYRAD(1)=  52.000  CM
*****

```

```

*****  IQII= 0  *****
*****  SOURCE : GAMMA RAY  *****
*****
*****  IBETFG= 1  *****
*****  SPECTRUM DATA  *****
*****
** INPUT KINETIC ENERGY= 5.000E-01(MeV) **
* NUMBER OF INPUT PARTICLE AT BATCH= 100000
* NUMBER OF BATCH= 10

```

D90T01MM.OUT

```

*****
**** ISFG= 0 IS MODEL OF SOURCE ****
****      0 : POINT SOURCE ****
****      1 : Z PLANE SURFACE SOURCE ****
****      2 : X PLANE SURFACE SOURCE ****
****      3 : VOLUME SOURCE OF RZ ****
****      4 : VOLUME SOURCE OF RZ - RZ **
*****
***** JWATCH= 0: IF 4 THEN WRITE PLOT DATA
*****
**** SPECTRA OF SOURCE ****
NO. LOWER ENERGY UPPER ENERGY FACTOR
  1  5.0000E-01  5.0000E-01  1.0000E+00
**** POINT SOURCE ****
X= .000
Y= .000
Z= .000
***** SOURCE DIRECTION *****
*** UI= .000E+00 VI= 1.000E+00 WI= .000E+00
DEPOSITION AREA DATA
NO.= 1. REGION NO. = 2
NO.= 2. REGION NO. = 3
NO.= 3. REGION NO. = 4
**** CYLINDER DETECTOR ****
IQ= 0
X= .000
Y= .000
Z= -.500
R= 50.200
H= 1.000
START ANGLE( DEG. )= .000
END ANGLE( DEG. )= .000
BOUNDARY ENERGY FOR PHOTON FLUX
  1 .000E+00
  2 1.000E-02
  3 1.250E-02
  4 1.750E-02
  5 2.250E-02
  6 2.500E-02
  7 3.500E-02
  8 4.500E-02
  9 5.500E-02
 10 6.500E-02
 11 7.000E-02
 12 9.000E-02
 13 1.100E-01
 14 1.250E-01
 15 1.750E-01
 16 2.250E-01
 17 2.500E-01
 18 3.500E-01
 19 4.500E-01
 20 5.500E-01
***** HOSEI= 1.000E+00
*****
BROAD DATA : AFCT= .00000E+00 BFCT= .00000E+00
NAI OPTION OFF(0)/ON(1) FLAG : NAIOPT= 0
O*** PRESTA INPUTS ***
IPLC, IBCA, ILCA, IOLDTM, BLCMIN:
INITIAL= 0 0 0 0 0 0 0 1.504
0-----
PRESTA CALCULATED MINIMUM STEP SIZES FOR MAXIMUM ENERGY ELECTRONS
MEDIUM NO. t.prime,min for E=Emax
          1 .382 cm
          2 .553E-04 cm
-----
          6 3 11 3 0 4 0
         13 8 15 11 11 14 0
          6 15 0 2 3 11 0
          5 14 2 14 4 8 0
          7 15 7 10 12 2 0
1 1000000 CASES COMPLETED
IXXST= 123456789
IXXEND= 54
AVAILABLE K.E. = .50000 MEV
TOTKE= .50000E+06 MEV

```

PULSE HEIGHT DISTRIBUTION FOR .50000 MEV

D90T01MM.OUT

DETECTOR NO. = 1 REGION NO. = 2  
 TOTAL DEP. ENERGY = 8.270E+02 MEV  
 TOTAL INPUT ENERGY = 5.000E+05 MEV  
 DEP. EFFICIENCY = .001654  
 YIELD DATA = 1.000

TOTAL CASE = 1000000 TOTAL COUNTS = 6229.  
 YIELD DATA = 1.000

RESPONSE FUNCTION

FOR A .500 MeV BEAM

NO.	ENERGY	COUNTS	UP-COUNTS	COUNTS/INCIDENT PARTICLES
1	.0100	320.	5909.	.0003
2	.0200	309.	5600.	.0003
3	.0300	333.	5267.	.0003
4	.0400	263.	5004.	.0003
5	.0500	276.	4728.	.0003
6	.0600	269.	4459.	.0003
7	.0700	243.	4216.	.0002
8	.0800	255.	3961.	.0003
9	.0900	278.	3683.	.0003
10	.1000	227.	3456.	.0002
11	.1100	227.	3229.	.0002
12	.1200	210.	3019.	.0002
13	.1300	189.	2830.	.0002
14	.1400	185.	2645.	.0002
15	.1500	236.	2409.	.0002
16	.1600	179.	2230.	.0002
17	.1700	173.	2057.	.0002
18	.1800	153.	1904.	.0002
19	.1900	153.	1751.	.0002
20	.2000	156.	1595.	.0002
21	.2100	163.	1432.	.0002
22	.2200	125.	1307.	.0001
23	.2300	134.	1173.	.0001
24	.2400	111.	1062.	.0001
25	.2500	111.	951.	.0001
26	.2600	119.	832.	.0001
27	.2700	150.	682.	.0002
28	.2800	102.	580.	.0001
29	.2900	115.	465.	.0001
30	.3000	91.	374.	.0001
31	.3100	97.	277.	.0001
32	.3200	86.	191.	.0001
33	.3300	67.	124.	.0001
34	.3400	37.	87.	.0000
35	.3500	24.	63.	.0000
36	.3600	23.	40.	.0000
37	.3700	21.	19.	.0000
38	.3800	12.	7.	.0000
39	.3900	7.	0.	.0000
40	.4000	0.	0.	.0000

DETECTOR NO. = 2 REGION NO. = 3  
 TOTAL DEP. ENERGY = 6.271E+04 MEV  
 TOTAL INPUT ENERGY = 5.000E+05 MEV  
 DEP. EFFICIENCY = .125423  
 YIELD DATA = 1.000

TOTAL CASE = 1000000 TOTAL COUNTS = 160432.  
 YIELD DATA = 1.000

RESPONSE FUNCTION

FOR A .500 MeV BEAM

NO.	ENERGY	COUNTS	UP-COUNTS	COUNTS/INCIDENT PARTICLES
1	.0100	2401.	158031.	.0024 *
2	.0200	2303.	155728.	.0023*
3	.0300	2301.	153427.	.0023*
4	.0400	2256.	151171.	.0023*
5	.0500	2079.	149092.	.0021*
6	.0600	2065.	147027.	.0021*
7	.0700	1971.	145056.	.0020*
8	.0800	1879.	143177.	.0019*
9	.0900	1991.	141186.	.0020*
10	.1000	2250.	138936.	.0022*
11	.1100	2080.	136856.	.0021*
12	.1200	1895.	134961.	.0019*
13	.1300	1820.	133141.	.0018*
14	.1400	1690.	131451.	.0017*
15	.1500	1658.	129793.	.0017*
16	.1600	1517.	128276.	.0015*
17	.1700	1464.	126812.	.0015*
18	.1800	1383.	125429.	.0014*

D90T01MM.OUT

19	.1900	1324.	124105.	.0013*
20	.2000	1273.	122832.	.0013*
21	.2100	1101.	121731.	.0011*
22	.2200	1021.	120710.	.0010*
23	.2300	795.	119915.	.0008*
24	.2400	528.	119387.	.0005*
25	.2500	320.	119067.	.0003*
26	.2600	294.	118773.	.0003*
27	.2700	318.	118455.	.0003*
28	.2800	418.	118037.	.0004*
29	.2900	482.	117555.	.0005*
30	.3000	501.	117054.	.0005*
31	.3100	554.	116500.	.0006*
32	.3200	573.	115927.	.0006*
33	.3300	571.	115356.	.0006*
34	.3400	278.	115078.	.0003*
35	.3500	222.	114856.	.0002*
36	.3600	203.	114653.	.0002*
37	.3700	180.	114473.	.0002*
38	.3800	144.	114329.	.0001*
39	.3900	160.	114169.	.0002*
40	.4000	152.	114017.	.0002*
41	.4100	142.	113875.	.0001*
42	.4200	219.	113656.	.0002*
43	.4300	205.	113451.	.0002*
44	.4400	177.	113274.	.0002*
45	.4500	182.	113092.	.0002*
46	.4600	135.	112957.	.0001*
47	.4700	117.	112840.	.0001*
48	.4800	157.	112683.	.0002*
49	.4900	141.	112542.	.0001*
50	.5000	112542.	0.	.1125
51	.5100	0.	0.	.0000*

DETECTOR NO. = 3 REGION NO. = 4  
 TOTAL DEP. ENERGY = 3.451E+01 MEV  
 TOTAL INPUT ENERGY = 5.000E+05 MEV  
 DEP. EFFICIENCY = .000069  
 YIELD DATA = 1.000

TOTAL CASE = 1000000 TOTAL COUNTS = 3689.  
 YIELD DATA = 1.000

RESPONSE FUNCTION FOR A .500 MeV BEAM

NO.	ENERGY	COUNTS	UP-COUNTS	COUNTS/INCIDENT PARTICLES
1	.0100	2893.	796.	.0029
2	.0200	465.	331.	.0005
3	.0300	134.	197.	.0001
4	.0400	87.	110.	.0001
5	.0500	49.	61.	.0000*
6	.0600	25.	36.	.0000*
7	.0700	14.	22.	.0000*
8	.0800	12.	10.	.0000*
9	.0900	6.	4.	.0000*
10	.1000	2.	2.	.0000*
11	.1100	1.	1.	.0000*
12	.1200	1.	0.	.0000*
13	.1300	0.	0.	.0000*

FLUX CALCULATION NO. = 1

NO.	LOWER-ENERGY (MEV)	UPPER-ENERGY (MEV)	FLUX (PARTICLES/CM**2)		
1	.0000E+00	1.0000E-02	.0000E+00	.0000E+00	.0000E+00
2	1.0000E-02	1.2500E-02	.0000E+00	3.1150E-02	3.1150E-02
3	1.2500E-02	1.7500E-02	.0000E+00	4.0628E-02	4.0628E-02
4	1.7500E-02	2.2500E-02	.0000E+00	2.7453E-02	2.7453E-02
5	2.2500E-02	2.5000E-02	.0000E+00	5.2024E-02	5.2024E-02
6	2.5000E-02	3.5000E-02	.0000E+00	1.2564E-01	1.2564E-01
7	3.5000E-02	4.5000E-02	.0000E+00	2.1103E-01	2.1103E-01
8	4.5000E-02	5.5000E-02	.0000E+00	2.3952E-01	2.3952E-01
9	5.5000E-02	6.5000E-02	.0000E+00	3.1452E-01	3.1452E-01
10	6.5000E-02	7.0000E-02	.0000E+00	3.2080E-01	3.2080E-01
11	7.0000E-02	9.0000E-02	.0000E+00	8.0206E-01	8.0206E-01
12	9.0000E-02	1.1000E-01	.0000E+00	2.1892E-01	2.1892E-01
13	1.1000E-01	1.2500E-01	.0000E+00	2.7587E-01	2.7587E-01
14	1.2500E-01	1.7500E-01	1.7110E-02	1.5264E+00	1.5435E+00
15	1.7500E-01	2.2500E-01	5.0101E-02	2.0906E+00	2.1407E+00
16	2.2500E-01	2.5000E-01	9.3159E-02	1.1385E+00	1.2317E+00
17	2.5000E-01	3.5000E-01	.0000E+00	6.8995E+01	6.8995E+01
18	3.5000E-01	4.5000E-01	.0000E+00	7.5704E+01	7.5704E+01
19	4.5000E-01	5.5000E-01	.0000E+00	2.6948E+03	2.6948E+03
TOTAL			1.6037E-01	2.8469E+03	2.8471E+03

DOOT10MM.OUT

```

<<<<< ANGULAR CHECK ISO 500keV PB 10 mm >>>>>
<<<<< * PRESTA : 0=ON ,1=OFF >>>>>
<<<<< * ESTEPE : DATA OF ESTEP >>>>>
<<<<< * PRINT : 0=ALL .1=EXCEPT ECNSV1 & NTALLY .2=EXCEPT 1 & SPECTRUM >>>>>
<<<<< * PRESTA ESTEPE ECUT PCUT PRINT RAYLEIGHT >>>>>
<<<<< 0 0.0 0 0 2 0 >>>>>
<<<<< * MATERIAL COUNT >>>>>
<<<<< 2 >>>>>
<<<<< * MATERIAL NAME >>>>>
<<<<< AIR >>>>>
<<<<< PB >>>>>
<<<<< *GEOMETRY >>>>>
<<<<< * NCYL , NPLAN >>>>>
<<<<< 3 2 >>>>>
<<<<< * (CYRAD(J), J=1, NCYL) >>>>>
<<<<< 50.0 51.0 52.0 >>>>>
<<<<< * (PCOORD(3, J), J=1, NPLAN) >>>>>
<<<<< -100.0 310.0 >>>>>
<<<<< *MET >>>>>
<<<<< 1 2 1 >>>>>
<<<<< *IRAYLR >>>>>
<<<<< *ECUT >>>>>
<<<<< *PCUT >>>>>
<<<<< *IEDFE >>>>>
<<<<< 1 >>>>>
<<<<< * IQII IBETFG EINN NCASPB NBATC H ISFG JWATC H >>>>>
<<<<< 0 1 0.5 1000000 10 0 0 >>>>>
<<<<< *SOURCE >>>>>
<<<<< 5.0E-1 5.0E-1 1.0 >>>>>
<<<<< *ISFG=1 point source >>>>>
<<<<< * X Y Z >>>>>
<<<<< 0.0 0.0 0.0 >>>>>
<<<<< * U1 V1 W1 >>>>>
<<<<< 0.0 0.0 0.0 >>>>>
<<<<< * ICKCNT >>>>>
<<<<< 3 >>>>>
<<<<< * DELTAE >>>>>
<<<<< 0.01 >>>>>
<<<<< * ICKKMD >>>>>
<<<<< 2 3 4 >>>>>
<<<<< * IFXCNT >>>>>
<<<<< 4 >>>>>
<<<<< * IFLXP IQFLX >>>>>
<<<<< 3 0 >>>>>
<<<<< * IFLXP=0 >>>>>
<<<<< * XFLX YFLX ZYLX RRFLX HFLX THS THE >>>>>
<<<<< 0.0 0.0 289.3 51.1 1.0 0.0 0.0 >>>>>
<<<<< * IFLXP IQFLX >>>>>
<<<<< 3 0 >>>>>
<<<<< * IFLXP=0 >>>>>
<<<<< * XFLX YFLX ZYLX RRFLX HFLX THS THE >>>>>
<<<<< 0.0 0.0 60.4 51.1 1.0 0.0 0.0 >>>>>
<<<<< * IFLXP IQFLX >>>>>
<<<<< 3 0 >>>>>
<<<<< * IFLXP=0 >>>>>
<<<<< * XFLX YFLX ZYLX RRFLX HFLX THS THE >>>>>
<<<<< 0.0 0.0 29.0 51.1 1.0 0.0 0.0 >>>>>
<<<<< * IFLXP IQFLX >>>>>
<<<<< 3 0 >>>>>
<<<<< * IFLXP=0 >>>>>
<<<<< * XFLX YFLX ZYLX RRFLX HFLX THS THE >>>>>
<<<<< 0.0 0.0 -0.5 51.1 1.0 0.0 0.0 >>>>>
<<<<< * IFLXEG(1) >>>>>
<<<<< 19 >>>>>
<<<<< * FLXEG >>>>>
<<<<< 0.00 >>>>>
<<<<< 1.00E-02 >>>>>
<<<<< 1.25E-02 >>>>>
<<<<< 1.75E-02 >>>>>
<<<<< 2.25E-02 >>>>>
<<<<< 2.50E-02 >>>>>
<<<<< 3.50E-02 >>>>>
<<<<< 4.50E-02 >>>>>
<<<<< 5.50E-02 >>>>>
<<<<< 6.50E-02 >>>>>
<<<<< 7.00E-02 >>>>>
<<<<< 9.00E-02 >>>>>
<<<<< 1.10E-01 >>>>>
<<<<< 1.25E-01 >>>>>
<<<<< 1.75E-01 >>>>>
<<<<< 2.25E-01 >>>>>
<<<<< 2.50E-01 >>>>>
<<<<< 3.50E-01 >>>>>
<<<<< 4.50E-01 >>>>>
<<<<< 5.50E-01 >>>>>
<<<<< * IFLXEG(2) >>>>>

```

DOOT10MM.OUT

```

<<<<< 0
<<<<< * HOSEIS AFCT BFCT NAIPT
<<<<< 1.0 0.0 0.0 0
1 ANGULAR CHECK ISO 500keV PB 10 mm
    >>>>>
    >>>>>
    >>>>>
    
```

```

*****
***** IPRSFG= 0
***** PRESTA ON
***** DATA OF ESTEPE= .000
***** IECUTF= 0
***** DEFAULT ECUT ENERGY 0.521 MEV
***** IPCUTF= 0
***** DEFAULT PCUT ENERGY 0.01 MEV
***** IDBGFG= 2
***** DEBUG FLAG OFF
***** IRAYFG= 0
***** RAYLEIGHT FLAG OFF
*****
    
```

```

*****
***** NMED = 2 : NUMBER OF MEDIA
***** 1 AIR
***** 2 PB
*****
    
```

```

*****
***** NCYL = 3 : NUMBER OF CYLINDER
***** NPLAN = 2 : NUMBER OF PLANES
***** NREG = 6 : NUMBER OF REGIONS
***** (INCLUDING OUTSIDE VACUUM REGION)
*****
    
```

```

***** NO. RADIUS(CM)
***** 1 50.000
***** 2 51.000
***** 3 52.000
*****
    
```

```

***** NO. HIEGHT(CM)
***** 1 -100.000
***** 2 310.000
*****
    
```

\*\*\* GEOMETRY \*\*\*

```

*****
NCYL= 1 2 3
NPLAN 1 1 2 1
    
```

```

*** K-EGDE FLAG OFF ***
EGS SUCCESSFULLY 'HATCHED' FOR 2 MEDIA.
1 *****
    
```

QUANTITIES ASSOCIATED WITH EACH MEDIA:

```

AIR
RHO= .1205000E-02 G/CM**3 RLC= 30383.50 CM
AE= .5210000 MEV UE= 10.00000 MEV
AP= .1000000E-02 MEV UP= 10.00000 MEV
    
```

```

PB
RHO= 11.40000 G/CM**3 RLC= .5587660 CM
AE= .5210000 MEV UE= 10.00000 MEV
AP= .1000000E-02 MEV UP= 10.00000 MEV
*****
    
```

INFORMATION OF MEDIUM AND CUT-OFF FOR EACH REGION

```

MEDIUM( 1)=VACUUM ECUT=.00000E+00 MEV, PCUT=.00000E+00 MEV
MEDIUM( 2)=AIR ECUT=.52100 MEV, PCUT=.10000E-01 MEV
MEDIUM( 3)=PB ECUT=.52100 MEV, PCUT=.10000E-01 MEV
MEDIUM( 4)=AIR ECUT=.52100 MEV, PCUT=.10000E-01 MEV
MEDIUM( 5)=VACUUM ECUT=.00000E+00 MEV, PCUT=.00000E+00 MEV
MEDIUM( 6)=VACUUM ECUT=.00000E+00 MEV, PCUT=.00000E+00 MEV
    
```

1 PCOORD AND PNORM VALUES FOR EACH J-PLANE (I=1,3):

1	.0000000E+00	.0000000E+00	-100.0000	.0000000E+00	.0000000E+00	1.000000
2	.0000000E+00	.0000000E+00	310.0000	.0000000E+00	.0000000E+00	1.000000

CYLINDER RADII

DOOT10MM.OUT

```

I= 1      CYRAD(I)= 50.000  CM
I= 2      CYRAD(I)= 51.000  CM
I= 3      CYRAD(I)= 52.000  CM
*****
***** IQII= 0 *****
***** SOURCE : GAMMA RAY *****
***** IBETFG= 1 *****
***** SPECTRUM DATA *****
*****
** INPUT KINETIC ENERGY= 5.000E-01(MeV) **
* NUMBER OF INPUT PARTICLE AT BATCH= 1000000
* NUMBER OF BATCH= 10
*****
**** ISFG= 0 IS MODEL OF SOURCE ****
**** 0 : POINT SOURCE ****
**** 1 : Z PLANE SURFACE SOURCE ****
**** 2 : X PLANE SURFACE SOURCE ****
**** 3 : VOLUME SOURCE OF RZ ****
**** 4 : VOLUME SOURCE OF RZ - RZ **
*****
***** JWATCH= 0:IF 4 THEN WRITE PLOT DATA *****
*****
**** SPECTRA OF SOURCE ****
NO. LOWER ENERGY UPPER ENERGY FACTOR
1 5.0000E-01 5.0000E-01 1.0000E+00
**** POINT SOURCE ****
X= .000
Y= .000
Z= .000
***** SOURCE DIRECTION *****
***** ISOTOROPIC *****
DEPOSITION AREA DATA
NO.= 1, REGION NO. = 2
NO.= 2, REGION NO. = 3
NO.= 3, REGION NO. = 4
**** CYLINDER DETECTOR ****
IQ= 0
X= .000
Y= .000
Z= 289.300
R= 51.100
H= 1.000
START ANGLE( DEG. )= .000
END ANGLE( DEG. )= .000
**** CYLINDER DETECTOR ****
IQ= 0
X= .000
Y= .000
Z= 60.400
R= 51.100
H= 1.000
START ANGLE( DEG. )= .000
END ANGLE( DEG. )= .000
**** CYLINDER DETECTOR ****
IQ= 0
X= .000
Y= .000
Z= 29.000
R= 51.100
H= 1.000
START ANGLE( DEG. )= .000
END ANGLE( DEG. )= .000
**** CYLINDER DETECTOR ****
IQ= 0
X= .000
Y= .000
Z= -.500
R= 51.100
H= 1.000
START ANGLE( DEG. )= .000
END ANGLE( DEG. )= .000
BOUNDARY ENERGY FOR PHOTON FLUX
1 .000E+00
2 1.000E-02
3 1.250E-02
4 1.750E-02
5 2.250E-02
6 2.500E-02
7 3.500E-02
8 4.500E-02
9 5.500E-02
10 6.500E-02
11 7.000E-02

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DOBT10MM.OUT

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12 9.000E-02
13 1.100E-01
14 1.250E-01
15 1.750E-01
16 2.250E-01
17 2.500E-01
18 3.500E-01
19 4.500E-01
20 5.500E-01
***** ROSEI= 1.000E+00
*****
BROAD DATA : AFCT= .00000E+00 BFCT= .00000E+00
NAI OPTION OFF(0)/ON(1) FLAG : NAI OPT= 0
0*** PRESTA INPUTS ***
IPLC, IBCA, ILCA, IOLDTM, BLCMIN:
INITIAL= 0 0 0 0 0 0 0 .0000E+00
0-----

```

PRESTA CALCULATED MINIMUM STEP SIZES FOR MAXIMUM ENERGY ELECTRONS

MEDIUM NO.	t, prime, min for E=Emax
1	.382 cm
2	.553E-04 cm

```

6 3 11 3 0 4 0
13 8 15 11 11 14 0
6 15 0 2 3 11 0
5 14 2 14 4 8 0
7 15 7 10 12 2 0
1 10000000 CASES COMPLETED

```

IXXST= 123456789  
 IXXEND= 16

AVAILABLE K.E. = .50000 MEV  
 TOTKE= .50000E+07 MEV

PULSE HEIGHT DISTRIBUTION FOR .50000 MEV  
 DETECTOR NO. = 1 REGION NO. = 2  
 TOTAL DEP. ENERGY = 1.296E+04 MEV  
 TOTAL INPUT ENERGY = 5.000E+06 MEV  
 DEP. EFFICIENCY = .002591  
 YIELD DATA = 1.000

TOTAL CASE = 10000000 TOTAL COUNTS = 92865.  
 YIELD DATA = 1.000

RESPONSE FUNCTION

FOR A	.500 MeV BEAM	COUNTS	UP-COUNTS	COUNTS/INCIDENT PARTICLES
1	.0100	4582.	88283.	.0005
2	.0200	4314.	83969.	.0004
3	.0300	4159.	79810.	.0004
4	.0400	3933.	75877.	.0004
5	.0500	3967.	71910.	.0004
6	.0600	3821.	68089.	.0004
7	.0700	3779.	64310.	.0004
8	.0800	3695.	60615.	.0004
9	.0900	3440.	57175.	.0003
10	.1000	3373.	53802.	.0003
11	.1100	3230.	50572.	.0003
12	.1200	3150.	47422.	.0003
13	.1300	3067.	44355.	.0003
14	.1400	2968.	41387.	.0003
15	.1500	2826.	38561.	.0003
16	.1600	2546.	36015.	.0003
17	.1700	2600.	33415.	.0003
18	.1800	2510.	30905.	.0003
19	.1900	2311.	28594.	.0002
20	.2000	2210.	26384.	.0002
21	.2100	2244.	24140.	.0002
22	.2200	2201.	21939.	.0002
23	.2300	2092.	19847.	.0002
24	.2400	2029.	17818.	.0002
25	.2500	1984.	15834.	.0002
26	.2600	1890.	13944.	.0002
27	.2700	1772.	12172.	.0002
28	.2800	1754.	10418.	.0002
29	.2900	1834.	8584.	.0002
30	.3000	1700.	6884.	.0002

DOOT10MM.OUT

31	.3100	1635.	5249.	.0002
32	.3200	1525.	3724.	.0002
33	.3300	1418.	2306.	.0001
34	.3400	551.	1755.	.0001
35	.3500	426.	1329.	.0000
36	.3600	368.	961.	.0000
37	.3700	343.	618.	.0000
38	.3800	268.	350.	.0000
39	.3900	205.	145.	.0000
40	.4000	107.	38.	.0000
41	.4100	34.	4.	.0000*
42	.4200	0.	4.	.0000*
43	.4300	0.	4.	.0000*
44	.4400	0.	4.	.0000*
45	.4500	1.	3.	.0000*
46	.4600	0.	3.	.0000*
47	.4700	0.	3.	.0000*
48	.4800	1.	2.	.0000*
49	.4900	1.	1.	.0000*
50	.5000	1.	0.	.0000*
51	.5100	0.	0.	.0000*

DETECTOR NO. = 2 REGION NO. = 3  
 TOTAL DEP. ENERGY = 3.934E+06 MEV  
 TOTAL INPUT ENERGY = 5.000E+06 MEV  
 DEP. EFFICIENCY = .786731  
 YIELD DATA = 1.000

TOTAL CASE = 10000000 TOTAL COUNTS = 8247285.  
 YIELD DATA = 1.000

RESPONSE FUNCTION

FOR A	.500 MeV BEAM	COUNTS	UP-COUNTS	COUNTS/INCIDENT PARTICLES
NO. 1	.0100	36114.	8211171.	.0036*
2	.0200	33845.	8177326.	.0034*
3	.0300	32183.	8145143.	.0032*
4	.0400	29996.	8115147.	.0030*
5	.0500	28373.	8086774.	.0028*
6	.0600	26440.	8060334.	.0026*
7	.0700	24409.	8035925.	.0024*
8	.0800	22814.	8013111.	.0023*
9	.0900	21369.	7991742.	.0021*
10	.1000	19930.	7971812.	.0020*
11	.1100	18383.	7953429.	.0018*
12	.1200	16581.	7936848.	.0017*
13	.1300	15180.	7921668.	.0015*
14	.1400	13438.	7908230.	.0013*
15	.1500	12518.	7895712.	.0013*
16	.1600	11054.	7884658.	.0011*
17	.1700	9983.	7874675.	.0010*
18	.1800	9832.	7864843.	.0010*
19	.1900	9171.	7855672.	.0009*
20	.2000	8271.	7847401.	.0008*
21	.2100	7484.	7839917.	.0007*
22	.2200	7075.	7832842.	.0007*
23	.2300	6242.	7826600.	.0006*
24	.2400	5836.	7820764.	.0006*
25	.2500	5432.	7815332.	.0005*
26	.2600	5219.	7810113.	.0005*
27	.2700	4896.	7805217.	.0005*
28	.2800	4528.	7800689.	.0005*
29	.2900	3946.	7796743.	.0004*
30	.3000	3525.	7793218.	.0004*
31	.3100	3278.	7789940.	.0003*
32	.3200	3216.	7786724.	.0003*
33	.3300	3258.	7783466.	.0003*
34	.3400	2890.	7780576.	.0003*
35	.3500	2652.	7777924.	.0003*
36	.3600	2811.	7775113.	.0003*
37	.3700	2955.	7772158.	.0003*
38	.3800	2948.	7769210.	.0003*
39	.3900	2989.	7766221.	.0003*
40	.4000	2951.	7763270.	.0003*
41	.4100	3030.	7760240.	.0003*
42	.4200	3210.	7757030.	.0003*
43	.4300	3493.	7753537.	.0003*
44	.4400	3385.	7750152.	.0003*
45	.4500	3334.	7746818.	.0003*
46	.4600	3367.	7743451.	.0003*
47	.4700	3276.	7740175.	.0003*
48	.4800	3399.	7736776.	.0003*
49	.4900	3490.	7733286.	.0003*
50	.5000	7733286.	0.	.7733
51	.5100	0.	0.	.0000*

DOOT10MM.OUT

DETECTOR NO. = 3 REGION NO. = 4  
 TOTAL DEP. ENERGY = 3.253E+01 MEV  
 TOTAL INPUT ENERGY = 5.000E+06 MEV  
 DEP. EFFICIENCY = .000007  
 YIELD DATA = 1.000

TOTAL CASE = 10000000 TOTAL COUNTS = 6582.  
 YIELD DATA = 1.000

RESPONSE FUNCTION  
 FOR A .500 MeV BEAM

NO.	ENERGY	COUNTS	UP-COUNTS	COUNTS/INCIDENT PARTICLES
1	.0100	6069.	513.	.0006
2	.0200	302.	211.	.0000 *
3	.0300	111.	100.	.0000*
4	.0400	58.	42.	.0000*
5	.0500	26.	16.	.0000*
6	.0600	7.	9.	.0000*
7	.0700	7.	2.	.0000*
8	.0800	1.	1.	.0000*
9	.0900	1.	0.	.0000*
10	.1000	0.	0.	.0000*

FLUX CALCULATION NO. = 1

NO.	LOWER-ENERGY (MEV)	UPPER-ENERGY (MEV)	FLUX (PARTICLES/CM**2)		
1	.0000E+00	1.0000E-02	.0000E+00	.0000E+00	.0000E+00
2	1.0000E-02	1.2500E-02	.0000E+00	.0000E+00	.0000E+00
3	1.2500E-02	1.7500E-02	.0000E+00	.0000E+00	.0000E+00
4	1.7500E-02	2.2500E-02	.0000E+00	.0000E+00	.0000E+00
5	2.2500E-02	2.5000E-02	.0000E+00	.0000E+00	.0000E+00
6	2.5000E-02	3.5000E-02	.0000E+00	.0000E+00	.0000E+00
7	3.5000E-02	4.5000E-02	.0000E+00	.0000E+00	.0000E+00
8	4.5000E-02	5.5000E-02	.0000E+00	.0000E+00	.0000E+00
9	5.5000E-02	6.5000E-02	.0000E+00	.0000E+00	.0000E+00
10	6.5000E-02	7.0000E-02	.0000E+00	.0000E+00	.0000E+00
11	7.0000E-02	9.0000E-02	.0000E+00	.0000E+00	.0000E+00
12	9.0000E-02	1.1000E-01	.0000E+00	.0000E+00	.0000E+00
13	1.1000E-01	1.2500E-01	.0000E+00	.0000E+00	.0000E+00
14	1.2500E-01	1.7500E-01	.0000E+00	.0000E+00	.0000E+00
15	1.7500E-01	2.2500E-01	.0000E+00	.0000E+00	.0000E+00
16	2.2500E-01	2.5000E-01	.0000E+00	.0000E+00	.0000E+00
17	2.5000E-01	3.5000E-01	.0000E+00	5.1129E-03	5.1129E-03
18	3.5000E-01	4.5000E-01	.0000E+00	1.3996E-02	1.3996E-02
19	4.5000E-01	5.5000E-01	.0000E+00	.0000E+00	.0000E+00
TOTAL			.0000E+00	1.9109E-02	1.9109E-02

FLUX CALCULATION NO. = 2

NO.	LOWER-ENERGY (MEV)	UPPER-ENERGY (MEV)	FLUX (PARTICLES/CM**2)		
1	.0000E+00	1.0000E-02	.0000E+00	.0000E+00	.0000E+00
2	1.0000E-02	1.2500E-02	.0000E+00	.0000E+00	.0000E+00
3	1.2500E-02	1.7500E-02	.0000E+00	.0000E+00	.0000E+00
4	1.7500E-02	2.2500E-02	.0000E+00	.0000E+00	.0000E+00
5	2.2500E-02	2.5000E-02	.0000E+00	.0000E+00	.0000E+00
6	2.5000E-02	3.5000E-02	.0000E+00	.0000E+00	.0000E+00
7	3.5000E-02	4.5000E-02	.0000E+00	.0000E+00	.0000E+00
8	4.5000E-02	5.5000E-02	.0000E+00	.0000E+00	.0000E+00
9	5.5000E-02	6.5000E-02	.0000E+00	.0000E+00	.0000E+00
10	6.5000E-02	7.0000E-02	.0000E+00	.0000E+00	.0000E+00
11	7.0000E-02	9.0000E-02	.0000E+00	.0000E+00	.0000E+00
12	9.0000E-02	1.1000E-01	.0000E+00	3.3966E-03	3.3966E-03
13	1.1000E-01	1.2500E-01	.0000E+00	.0000E+00	.0000E+00
14	1.2500E-01	1.7500E-01	.0000E+00	1.3393E-02	1.3393E-02
15	1.7500E-01	2.2500E-01	.0000E+00	4.6419E-02	4.6419E-02
16	2.2500E-01	2.5000E-01	.0000E+00	2.5542E-02	2.5542E-02
17	2.5000E-01	3.5000E-01	.0000E+00	6.5479E-01	6.5479E-01
18	3.5000E-01	4.5000E-01	.0000E+00	1.6797E+00	1.6797E+00
19	4.5000E-01	5.5000E-01	.0000E+00	1.0015E+01	1.0015E+01
TOTAL			.0000E+00	1.2438E+01	1.2438E+01

FLUX CALCULATION NO. = 3

NO.	LOWER-ENERGY (MEV)	UPPER-ENERGY (MEV)	FLUX (PARTICLES/CM**2)		
1	.0000E+00	1.0000E-02	.0000E+00	.0000E+00	.0000E+00
2	1.0000E-02	1.2500E-02	.0000E+00	.0000E+00	.0000E+00
3	1.2500E-02	1.7500E-02	.0000E+00	.0000E+00	.0000E+00
4	1.7500E-02	2.2500E-02	.0000E+00	.0000E+00	.0000E+00
5	2.2500E-02	2.5000E-02	.0000E+00	6.5968E-03	6.5968E-03
6	2.5000E-02	3.5000E-02	.0000E+00	.0000E+00	.0000E+00
7	3.5000E-02	4.5000E-02	.0000E+00	4.0065E-03	4.0065E-03