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JENDL-3.2核データファイルに基づく
BERMUDA用中性子群定数ライブラリー

1995年6月

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J ENDEL-3.2核データファイルに基づく
BERMUDA用中性子群定数ライブラリー

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放射線輸送コードBERMUDA-1DN, 同-2DN, 同-2DNS16, 同-3DN及び同-1DNAの中性子群定数ライブラリーとして, J439B, BERM125X, DATAが用いられてきた。これは主としてJENDL-2, 同-3PR1及び同-3PR2核データファイルに基づく24核種の群定数データから成っている。1994年にJENDL-3の改訂版JENDL-3.2が原研核データセンターから公開されたため, これに基づいて新しい群定数ライブラリーJ439B, BERMJ3, DATAがBERMUDAの中性子輸送計算のために作成された。核データ処理はPROF-GROUCH-G/Bコードシステムにより行なわれた。従来の24核種に加えて, ^3He , Mg, P, S, K及びWの6核種のデータが追加され, 合計30核種の核データが処理された。本報告書では, 主として処理の概要と処理システムの使用上の要点について説明している。PROF-GROUCH-G/Bコードシステムに関するマニュアルが未刊のため, 本報告書は同システムのBERMUDA用中性子群定数作成オプションの使用法解説書としても有用である。

A New Library of Neutron Group Constants for BERMUDA
Based on JENDL-3.2 Nuclear Data File

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For neutron transport codes BERMUDA-1DN, -2DN, -2DNS16, -3DN and -1DNA, a neutron group constants library, J439B.BERM125X.DATA, is currently used. This library is prepared for 24 nuclides based mainly on nuclear data files JENDL-2, -3PR1 and -3PR2. In 1994, JENDL-3.2, a newly revised version of JENDL-3 nuclear data file, has become available from Nuclear Data Center of JAERI. A new group constants library, J439B.BERMJ3.DATA, has been developed based on JENDL-3.2, for use in BERMUDA neutron transport calculation. Processing code used is PROF-GROUCH-G/B system. Six nuclides, ³He, Mg, P, S, K and W, are newly added so that data of total 30 nuclides have been processed into the new library. In the present report, described mainly are the outline of new library and know-how to use the processing system. As no usage manual has been prepared for PROF-GROUCH-G/B yet, the present report is also useful as a manual of the option in PROF-GROUCH-G/B code system to develop neutron group constants for BERMUDA.

Keywords: Evaluated Nuclear Data File, JENDL-3.2, Processing Code, PROF-GROUCH-G/B, Neutron, Group Constants Library, Transport Code System, BERMUDA

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1. 新ライブラリーの概要

BERMUDA-1 DN¹⁾, -2 DN¹⁾, -2 DNS 16¹⁾, -3 DN¹⁾ および -1 DNA²⁾ で用いてきた 中性子群定数ライブラリー J 4 3 9 B. BERM 1 2 5 X. DATA は, 核データファイル JENDL-2³⁾, -3 PR 1⁴⁾ および -3 PR 2⁴⁾ を基に作成された。但し, 窒素 N については ENDF/B-IV⁵⁾ の核データが用いられている。

平成6年度に至って, 新しい JENDL-3 核データファイル^{6), 7)} に 更に改訂を施した JENDL-3.2 が公開されたため, これに基づいて, 新たに 中性子の 群定数ライブラリー J 4 3 9 B. BERM J 3. DATA が作成された。

J 4 3 9 B. BERM 1 2 5 X. DATA に含まれていた 24 核種 に, 新たに 「³He, Mg, P, S, K および W」の6核種の群定数を追加して, BERMUDAコードシステムで取扱い得る遮蔽体組成の範囲を拡張し, 最新の核データ情報に基づいた遮蔽計算を可能とすることを目的として作成された。

新しい J 4 3 9 B. BERM J 3. DATA の仕様は以下のようになっている。

処理コード	: PROF-GROUCH-G/Bシステム
核データファイル	: JENDL-3.2
エネルギー群数	: 125 (J 4 3 9 B. BERM 1 2 5 X. DATA と同じ群構造)
核種数	: 30
加重スペクトル	: 1/E + Maxwell
ファイル名	: J 4 3 9 B. BERM J 3. DATA

群定数が整備された 30 核種 は 次ページの 表1 のようになっている。表中の“メンバー名”は第3章で用いる JCLファイル 及び 入出力データファイル(それぞれ 区分データセット として準備してある)等の中の, 各核種に対する メンバー名(ディレクトリー)である。また, 右端の“CPUタイム”は, PROFGX79コード(第2章参照)で必要とした FACOM/M780 での CPU時間(XX分:XX秒)である。CPU時間が 20分を越える場合は, 夜間JOB(Hクラス)で処理する必要がある。

表1 新ライブラリーJ439B.BERMJ3.DATに格納された核種

Position No.	核種	核データファイル	MAT No.	Code No.	メンバー名	CPU タイム
1	^1H	J1615.J32F5301.DAT	125	11	H0125	1:13
2	^3He	"	225	21	HE0225	1:04
3	^6Li	"	325	36	LI0325	21:12
4	^7Li	"	328	37	LI0328	19:37
5	^9Be	"	425	40	BE0425	3:38
6	^{10}B	"	525	50	B0525	24:58
7	^{12}C	"	625	60	C0625	6:13
8	^{14}N	"	725	70	N0725	21:06
9	^{16}O	"	825	80	O0825	8:38
10	^{19}F	"	925	90	F0925	10:21
11	^{23}Na	"	1125	110	NA1125	15:47
12	Mg	"	1200	120	MG1200	25:08
13	^{27}Al	"	1325	130	AL1325	16:51
14	Si	J1615.J32F5302.DAT	1400	140	SI1400	21:06
15	^{31}P	"	1525	150	P1525	3:57
16	S	"	1600	160	S1600	13:32
17	K	"	1900	190	K1900	7:48
18	Ca	J1615.J32F5303.DAT	2000	200	CA2000	20:29
19	^{51}V	"	2328	230	V2328	7:51
20	Cr	"	2400	240	CR2400	20:20
21	^{55}Mn	"	2525	250	MN2525	7:37
22	Fe	J1615.J32F5304.DAT	2600	260	FE2600	18:37
23	^{59}Co	"	2725	270	CO2725	11:25
24	Ni	"	2800	280	NI2800	19:46
25	Cu	"	2900	290	CU2900	17:18
26	^{93}Nb	J1615.J32F5307.DAT	4125	410	NB4125	6:20
27	Mo	"	4200	420	MO4200	16:48
28	^{181}Ta	J1615.J32F5312.DAT	7328	730	TA7328	6:04
29	W	"	7400	740	W7400	15:05
30	Pb	"	8200	820	PB8200	10:18

2. ソースファイルとロードモジュールの作成

群定数作成コードシステム PROF-GROUCH-G/B は、次の7本のコードによる処理を核種毎に施す仕組みになっている。

- | | |
|---------------------|--------------------------------------|
| (1) L I N E A R | [J2585. CULLEN. DATA(LINEAR)] |
| (2) R E C E N T N | [J2608. ENDFPR87. FORT77(RECENT89)] |
| (3) S I G M A 1 | [J2585. CULLEN. DATA(SIGMA1)] |
| (4) P R O F G X 7 9 | [J2585. PROFGX79. DATA(all members)] |
| (5) G L I B | [J2585. GLIBMKJG. DATA(all members)] |
| (6) B L I B G B | [J2585. AKDAT11. DATA(BLIBGB)] |
| (7) N L I B D U M P | [J2585. BERMUDA. FORT(NLIBDMPS)] |

実際は複数個の核種を同時に処理できるようになっているが、計算時間の点から考えて、最終ファイルとして二つのファイル

- | | |
|-----|---------------------------------------|
| (A) | J 7 5 3 3 . B E R M 1 2 5 A . D A T A |
| (B) | J 7 5 3 3 . B E R M 1 2 5 B . D A T A |

を用意しておき、B L I B G B で、交互に 入力ファイル、出力ファイル の立場を変えて、1核種ずつ追加してゆくことにした。

ソースプログラム はすべて P Sファイル に変換し、F O R T E X コンパイラー に適合するように修正してから ロードモジュール を作成した。

一方 P R O F G X 7 9 は フォートラン で 23224行、G L I B M K J G は 12214行 と、かなり大きい ファイル なので、これを再分割して 約5000行 または 6000行 の P Sファイル になるようにした (P R O F 7 9 1 ~ 5 と G L I B 1 ~ 2) 。

但し、R E C E N T N は 8077行 であるが、F O R T E X に適合するので、そのまま 1ファイル として扱った。修正後の ソースファイル は以下のようにになっている。

- | | |
|---------------------|---|
| (1) L I N E A R | [J7533. LINEAR. FORT77] |
| (2) R E C E N T N | [J7533. RECENTN. FORT77] |
| (3) S I G M A 1 | [J7533. SIGMA1. FORT77] |
| (4) P R O F G X 7 9 | [J7533. PROF791. FORT77~J7533. PROF795. FORT77] |
| (5) G L I B | [J7533. GLIB1. FORT77, J7533. GLIB2. FORT77] |
| (6) B L I B G B | [J7533. BLIB. FORT77] |
| (7) N L I B D U M P | [J7533. NLIB. FORT77] |

コンパイルリストの作成や、ロードモジュールの作成と修正に用いた JCL は 図1 に掲げた通りである。

この例では、NLIBDUMP のロードモジュール J7533.NLIB.LOAD 作成の JCL が示されている。

```
J7533.PROF.LOAD と J7533.GLIB.LOAD を作成する際の
[.PRVLIB='J2585.AKLIB']
```

は“EXCP”のオブジェクトモジュールを取り入れるために必要である。

```
また、J7533.NLIB.LOAD を作成する際の
[/SYSLIB DD DSN=SYS1.IPFLIB,DISP=SHR]
```

は“IPFCMD”のオブジェクトモジュールを取り入れるために必要である。

```
T(03) W(00) C(05) I(04) E(03) SRP
CLASS(B) MSGCLASS(S) MSGLEVEL(1,1,2) NOTIFY(J7533)
//* T(03) W(04) C(05) I(04) E(03) SRP (SRC=SOURCE)
//* T(03) W(00) C(05) I(04) E(03) SRP
//* EXEC FORTEX, SO='J7533.LINEAR', SRC=SOURCE, LCT=62
//* EXEC FORTEX, SO='J7533.RECENTN', SRC=SOURCE, LCT=62
//* EXEC FORTEX, SO='J7533.SIGMA1', SRC=SOURCE, LCT=62
//* EXEC FORTEX, SO='J7533.PROF791', SRC=SOURCE, LCT=62
//* EXEC FORTEX, SO='J7533.PROF792', SRC=SOURCE, LCT=62
//* EXEC FORTEX, SO='J7533.PROF793', SRC=SOURCE, LCT=62
//* EXEC FORTEX, SO='J7533.PROF794', SRC=SOURCE, LCT=62
//* EXEC FORTEX, SO='J7533.PROF795', SRC=SOURCE, LCT=62
//* EXEC FORTEX, SO='J7533.GLIB1', SRC=SOURCE, LCT=62
//* EXEC FORTEX, SO='J7533.GLIB2', SRC=SOURCE, LCT=62
//* EXEC FORTEX, SO='J7533.BLIB', SRC=SOURCE, LCT=62
//* EXEC FORTEX, SO='J7533.NLIB', SRC=SOURCE, LCT=62
//* EXEC LKEDEX, A='MAP, SECTION=31'
/*SYSIN DD DUMMY
```

図1 コンパイルリストの作成及びロードモジュールの作成と修正のための JCL (続く)

```

//* EXEC FORTEX, SO=' J7533. LINEAR'
//* EXEC LKEDCTEX, LM=' J7533. LINEAR', A=' MAP, SECTION=31', UNIT=xxxxx
//* EXEC LKEDUPEX, LM=' J7533. LINEAR', A=' MAP, SECTION=31'
//* EXEC FORTEX, SO=' J7533. RECENTN'
//* EXEC LKEDCTEX, LM=' J7533. RECENTN', A=' MAP, SECTION=31', UNIT=xxxxx
//* EXEC LKEDUPEX, LM=' J7533. RECENTN', A=' MAP, SECTION=31'
//* EXEC FORTEX, SO=' J7533. SIGMA1'
//* EXEC LKEDCTEX, LM=' J7533. SIGMA1', A=' MAP, SECTION=31', UNIT=xxxxx
//* EXEC LKEDUPEX, LM=' J7533. SIGMA1', A=' MAP, SECTION=31'
//* EXEC FORTEX, SO=' J7533. PROF791'
//* EXEC FORTEX, SO=' J7533. PROF792', DISP=MOD
//* EXEC FORTEX, SO=' J7533. PROF793', DISP=MOD
//* EXEC FORTEX, SO=' J7533. PROF794', DISP=MOD
//* EXEC FORTEX, SO=' J7533. PROF795', DISP=MOD
//* EXEC LKEDCTEX, LM=' J7533. PROF', A=' MAP, SECTION=31', UNIT=xxxxx,
//*   PRVLIB=' J2585. AKLIB'
//* EXEC LKEDUPEX, LM=' J7533. PROF', A=' MAP, SECTION=31'
//* EXEC FORTEX, SO=' J7533. GLIB1'
//* EXEC FORTEX, SO=' J7533. GLIB2', DISP=MOD
//* EXEC LKEDCTEX, LM=' J7533. GLIB', A=' MAP, SECTION=31', UNIT=xxxxx,
//*   PRVLIB=' J2585. AKLIB'
//* EXEC LKEDUPEX, LM=' J7533. GLIB', A=' MAP, SECTION=31'
//* EXEC FORTEX, SO=' J7533. BLIB'
//* EXEC LKEDCTEX, LM=' J7533. BLIB', A=' MAP, SECTION=31', UNIT=xxxxx
//* EXEC LKEDUPEX, LM=' J7533. BLIB', A=' MAP, SECTION=31'
// EXEC FORTEX, SO=' J7533. NLIB'
// EXEC LKEDCTEX, LM=' J7533. NLIB', A=' MAP, SECTION=31', UNIT=xxxxx
//SYSLIB DD DSN=SYS1. IPFLIB, DISP=SHR
//* EXEC LKEDUPEX, LM=' J7533. NLIB', A=' MAP, SECTION=31'
//SYSIN DD DUMMY
//

```

図1 コンパイルリストの作成及びロードモジュールの作成と修正のためのJCL

3. ランのJCLと入力データ

実行時には、前章(1)～(3)のLINEAR, RECENTN, SIGMA1を1JOBにまとめ(LIRESI), (6), (7)のBLIBGBとNLIBDUMPを1JOBにまとめる(BLIB)。従って1核種について4JOB(即ちLIRESEI, PROF, GLIB, BLIBの4ステップ), 30核種については合計120JOBを実行すれば良いことになる。このうちFACOM/M780でCPUタイムが20分を越える(夜間JOB, Hクラス)可能性のあるのは2番目のPROFのみで、それも結果的には ${}^6\text{Li}$, ${}^{10}\text{B}$, ${}^{14}\text{N}$, Mg, Si, Ca および Cr の7核種のみであった。これらのうち、最もCPUタイムが長かったのはMgで、25分程度であった(図1)。残りの23核種については、昼間でもLクラス等で実行可能である。

LIRESEI, PROF, GLIB, BLIBの4ステップの基本的な処理の流れは次ページの図2の通りである。LIRESEIの出力ファイルSJxxxxはPOファイルJ7533.JENDL32.DATA(xxxxxx)に格納して保存されているが、PSファイルのままPROFへ入力する必要がある(BACKSPACEがかかるから)。PROFの出力ファイルGJxxxxは容量が大きく、核種によっては200トラックを越えるので、保存はしていない。FT05からの入力ファイルJ7533.PROFGB.DATAおよびJ7533.BLIB.DATAは、サブルーチンDTLISTで内容をプリントするため、“//SYSINDD*”でJCLに含ませると、FORTEXのOSではエラーを生じるため、POファイルを別途作成したものである。

“JCL”と“その他の入力ファイル”のうちRECFM=FBのものについては、8ページ以下に ${}^{12}\text{C}$ の場合の例のリストを掲げた(図3～12)。

GLIB.CNTLとBLIB.CNTLでは、EXEC LMGOEXのパラメータとして“,RGN=9M”が必要である。

また、GLIB.CNTLの“//SYSINDD*”の下6行目column 58における“NTFOP=1”が必要で、“NTFOP=0”を入力すると、計算途中でSTOPコードを出して止まってしまう。

Pbまでの30核種の処理が終わったのち、“J7533.BERM125B.DATA”をRENAMEして、“J439B.BERMJ3.DATA”とした。

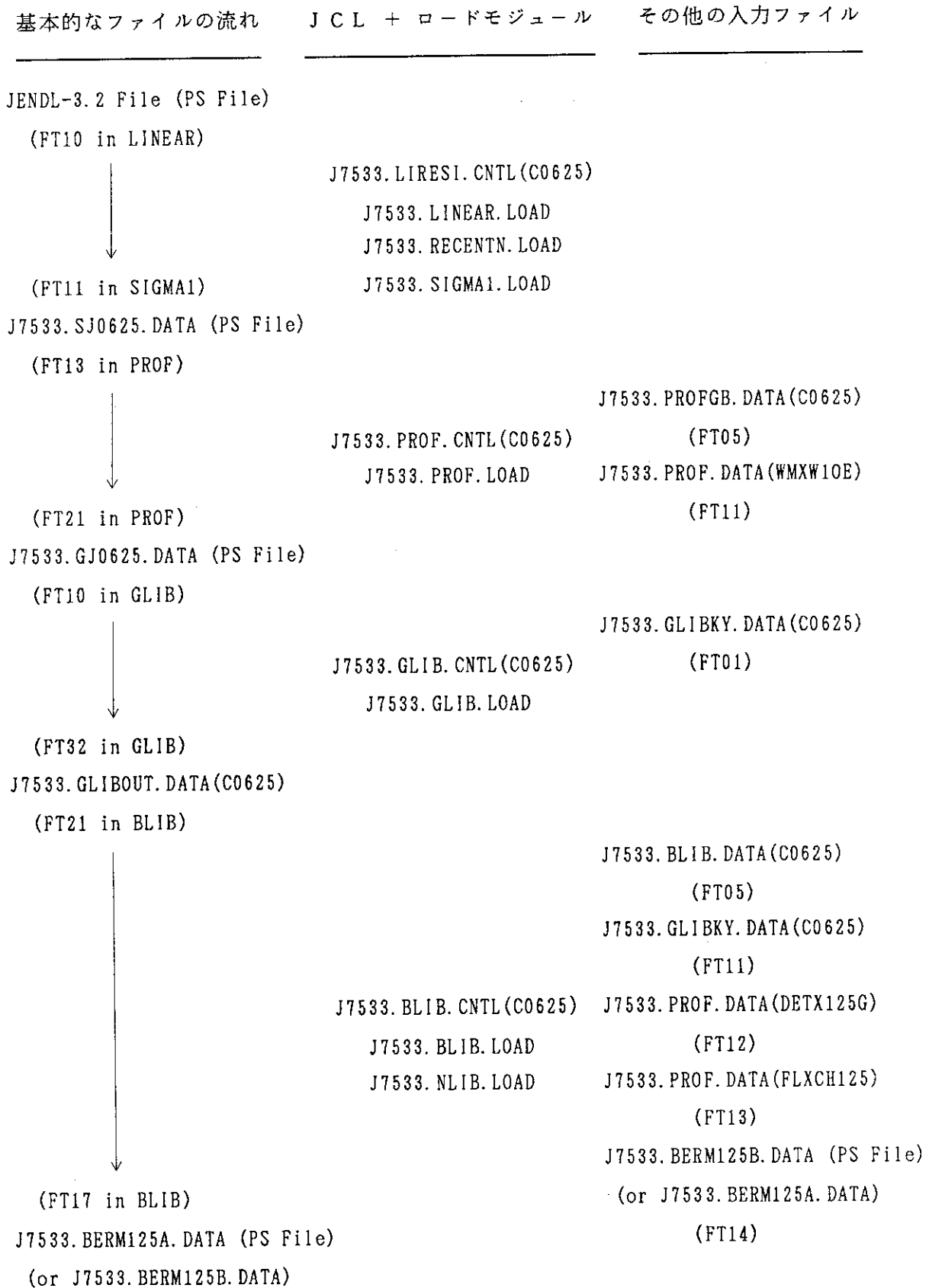


図2 PROF-GROUCH-G/Bコードシステムでのデータ処理の構造 (12Cの例)

```

T(01) W(00) C(00) I(00) E(01) SRP
CLASS(B) MSGCLASS(S) MSGLEVEL(1,1,2) NOTIFY(J7533)
/* ----- LINEAR -----
//LINEAR EXEC LMGOEX,LM='J7533.LINEAR'
/* INPUT FILE FROM JENDL-3.2
//FT10F001 DD DSN=J1615.J32F5301.DATA,DISP=SHR,LABEL=(, , ,IN)
//FT11F001 DD UNIT=WK10,DSN=&&LINE,SPACE=(TRK,(100,30),RLSE),
// DISP=(NEW,PASS),DCB=(RECFM=FB,LRECL=80,BLKSIZE=6400,DSORG=PS)
//FT12F001 DD UNIT=TSSWK,SPACE=(TRK,(10,10)),DISP=(NEW,DELETE),
// DCB=(RECFM=VBS,LRECL=23472,BLKSIZE=23476,DSORG=PS)
//SYSIN DD *
          0          2          1.0E-10          1          #1
          0625          0625          #2
          #2 TERMINATION
          1.0E-05          0.001          #3
          #3 TERMINATION

/*
/* ----- RECENTN -----
//RECENTN EXEC LMGOEX,LM='J7533.RECENTN'
//FT10F001 DD DSN=&&LINE,DISP=(OLD,DELETE)
//FT11F001 DD UNIT=WK10,DSN=&&RECE,SPACE=(TRK,(100,30),RLSE),
// DISP=(NEW,PASS),DCB=(RECFM=FB,LRECL=80,BLKSIZE=6400,DSORG=PS)
//FT12F001 DD UNIT=TSSWK,SPACE=(TRK,(100,10)),DISP=(NEW,DELETE),
// DCB=(RECFM=VBS,LRECL=23472,BLKSIZE=23476,DSORG=PS)
//FT13F001 DD UNIT=TSSWK,SPACE=(TRK,(100,10)),DISP=(NEW,DELETE),
// DCB=(RECFM=VBS,LRECL=23472,BLKSIZE=23476,DSORG=PS)
//FT14F001 DD UNIT=TSSWK,SPACE=(TRK,(10,10)),DISP=(NEW,DELETE),
// DCB=(RECFM=VBS,LRECL=23472,BLKSIZE=23476,DSORG=PS)
//SYSIN DD *
          0          0.0          0          0          0          0          #1
          1          9999          #2 MAT SELECTION
          #2 TERMINATION
          1.0E-05          0.001          #3 ERROR LAW FOR FILE 2
          #3 TERMINATION
          1.0E-05          0.001          #4 ERROR LAW FOR FILE2+3
          #4 TERMINATION

/*
/* ----- SIGMA1 -----
/* ----- DOPPLER BROADENING 0 TO 300 K -----
//SIGMA1 EXEC LMGOEX,LM='J7533.SIGMA1'
//FT10F001 DD DSN=&&RECE,DISP=(OLD,DELETE)
/* OUTPUT FILE FOR PROF
//FT11F001 DD DSN=J7533.SJ0625.DATA,DISP=SHR
//FT12F001 DD UNIT=TSSWK,SPACE=(TRK,(100,10)),DISP=(NEW,DELETE),
// DCB=(RECFM=VBS,LRECL=23472,BLKSIZE=23476,DSORG=PS)
//SYSIN DD *
          0          0          3.0E+02          #1
          1          9999          #2
          #2 TERMINATION
          1.0E-05          0.001          #3
          #3 TERMINATION

/*
//

```

☒ 3 J 7 5 3 3 . L I R E S I . C N T L (C 0 6 2 5)

```

T(10) W(00) C(02) I(10) E(01) SRP
CLASS(H) MSGCLASS(S) MSGLEVEL(1,1,2) NOTIFY(J7533)
//* T(07) W(00) C(02) I(08) E(01) SRP -- CLASS(F)
//* T(07) W(00) C(02) I(10) E(01) SRP -- CLASS(L)
//* T(10) W(00) C(02) I(10) E(01) SRP -- CLASS(H)
//PROFGB EXEC LMGDEX,LM='J7533.PROF',A='HIO=(61,62),ERRCUT=0,DFB=YES'
//SYSPRINT DD DUMMY
//FT06F001 DD DSN=J7533.LP0625.DATA,DISP=SHR
//SYSIN DD DSN=J7533.PROFGB.DATA(C0625),DISP=SHR,LABEL=(,,,IN)
//FT11F001 DD DSN=J7533.PROF.DATA(WMXW10E),DISP=SHR,LABEL=(,,,IN)
//* INPUT FILE FROM LIRESI
//FT13F001 DD DSN=J7533.SJ0625.DATA,DISP=SHR,LABEL=(,,,IN)
//FT14F001 DD UNIT=TSSWK,DSN=&&DUMMYX,
// SPACE=(TRK,(200,10)),DISP=(NEW,DELETE),
// DCB=(RECFM=VBS,LRECL=23472,BLKSIZE=23476,DSORG=PS)
//FT15F001 DD UNIT=TSSWK,DSN=J7533.FIJ0625.DATA,
// SPACE=(TRK,(200,10,100)),DISP=(NEW,CATLG,DELETE),
// DCB=(RECFM=VBS,LRECL=23472,BLKSIZE=23476,DSORG=PO)
//* OUTPUT FILE FOR GLIB
//FT21F001 DD DSN=J7533.GJ0625.DATA,DISP=SHR
//FT43F001 DD UNIT=TSSWK,SPACE=(TRK,(50,10)),DISP=(NEW,DELETE),
// DCB=(RECFM=VBS,LRECL=23472,BLKSIZE=23476,DSORG=PS)
//FT44F001 DD UNIT=TSSWK,SPACE=(TRK,(50,10)),DISP=(NEW,DELETE),
// DCB=(RECFM=VBS,LRECL=23472,BLKSIZE=23476,DSORG=PS)
//FT51F001 DD UNIT=TSSWK,SPACE=(TRK,(50,10)),DISP=(NEW,DELETE),
// DCB=(RECFM=VBS,LRECL=23472,BLKSIZE=23476,DSORG=PS)
//FT52F001 DD UNIT=TSSWK,SPACE=(CYL,030,,CONTIG),DISP=(NEW,DELETE)
//* NEVER WRITE DCB PARAMETERS FOR FT52.
//FT53F001 DD UNIT=TSSWK,SPACE=(TRK,(100,10)),DISP=(NEW,DELETE),
// DCB=(RECFM=VBS,LRECL=23472,BLKSIZE=23476,DSORG=PS)
//FT61F001 DD UNIT=TSSWK,SPACE=(CYL,100,,CONTIG),DISP=(NEW,DELETE),
// DCB=(RECFM=F,LRECL=23000,BLKSIZE=23000,DSORG=PS)
//FT62F001 DD UNIT=TSSWK,SPACE=(CYL,100,,CONTIG),DISP=(NEW,DELETE),
// DCB=(RECFM=F,LRECL=23000,BLKSIZE=23000,DSORG=PS)
//DELETE EXEC DELETE,DSN='J7533.FIJ0625.DATA'
//

```

図4 J7533.PROF.CNTL (C0625)

```

C-12-00 JENDL-3.2 POINTWISE LIN-LIN DATA AT 300K ALL MATRIX CAL
0 0 3JENDL-3.2
1 125 1 3 0 0 0.0E+00 0.0E+00 0.0E+00
1.0010E-05 3.2241E-01 5.3156E-01 8.7640E-01 1.4449E+00 2.3823E+00
3.9278E+00 6.4758E+00 1.0677E+01 1.7603E+01 2.9023E+01 4.7850E+01
7.8891E+01 1.3007E+02 2.1445E+02 3.5357E+02 5.8293E+02 9.6110E+02
1.2341E+03 1.5846E+03 2.0346E+03 2.6125E+03 3.3546E+03 4.3073E+03
5.5307E+03 7.1016E+03 9.1186E+03 1.1709E+04 1.5034E+04 1.9304E+04
2.1874E+04 2.4787E+04 2.8087E+04 3.1827E+04 3.6065E+04 4.0867E+04
4.6308E+04 5.2474E+04 5.9461E+04 6.7378E+04 7.6349E+04 8.6515E+04
9.8035E+04 1.1109E+05 1.2588E+05 1.4264E+05 1.6163E+05 1.8315E+05
2.0754E+05 2.3517E+05 2.6649E+05 3.0197E+05 3.4217E+05 3.8774E+05
4.3936E+05 4.9786E+05 5.6415E+05 6.3927E+05 7.2438E+05 8.2084E+05
9.3013E+05 1.0540E+06 1.1943E+06 1.3533E+06 1.5335E+06 1.7377E+06
1.8498E+06 1.9691E+06 2.0961E+06 2.2313E+06 2.3752E+06 2.5284E+06
2.6914E+06 2.8650E+06 3.0498E+06 3.2465E+06 3.4559E+06 3.6787E+06
3.9160E+06 4.1686E+06 4.4374E+06 4.7236E+06 5.0282E+06 5.3525E+06
5.6978E+06 6.0652E+06 6.4564E+06 6.8728E+06 7.3161E+06 7.7879E+06
8.2902E+06 8.8249E+06 9.3940E+06 9.9999E+06 1.0157E+07 1.0317E+07
1.0480E+07 1.0645E+07 1.0812E+07 1.0983E+07 1.1156E+07 1.1331E+07
1.1510E+07 1.1691E+07 1.1875E+07 1.2062E+07 1.2252E+07 1.2445E+07
1.2641E+07 1.2840E+07 1.3042E+07 1.3248E+07 1.3456E+07 1.3668E+07
1.3883E+07 1.4102E+07 1.4324E+07 1.4550E+07 1.4779E+07 1.5012E+07
1.5248E+07 1.5488E+07 1.5732E+07 1.5980E+07 1.6231E+07 1.6487E+07
9 300.
0.0 E+0 0.178 E+0 1.0 E+0 1.0 E+1 1.0 E+2 1.0 E+3
1.0 E+4 1.0 E+5 1.0 E+6
1
300.
1 MAT
0625
3 MF
3 4 5
0 MT
-1 ISFMTR
1 1 2 OJ7533.WOPTX.DATA
0 -1
PHI 1J7533.PROF.DATA(WMXW10E)
SIGX 1J7533.SJ0625.DATA
OUTD 1J7533.GJ0625.DATA
WORK 1J7533.FIJO625.DATA(DUMMYNM)
FILS 0 2 1 0 5.00000E-03 0
BERM 1 0
END

```

☒5 J 7 5 3 3 . P R O F G B . D A T A (C 0 6 2 5)

0.0	0.0	0	0	0	0999903
				1	594999903
594	2				999903
1.0000E-05	1.5617E-02	4.9355E-05	7.6957E-02	8.8711E-05	1.3811E-01
1.6742E-04	2.5983E-01	3.2484E-04	5.0102E-01	4.8226E-04	7.3921E-01
6.3969E-04	9.7442E-01	7.9711E-04	1.2067E+00	9.5453E-04	1.4360E+00
1.2694E-03	1.8861E+00	1.5842E-03	2.3248E+00	1.8991E-03	2.7523E+00
2.2139E-03	3.1689E+00	2.5287E-03	3.5748E+00	2.8436E-03	3.9702E+00
3.1584E-03	4.3553E+00	3.4733E-03	4.7302E+00	3.7881E-03	5.0951E+00
4.4178E-03	5.7960E+00	5.0475E-03	6.4594E+00	5.6772E-03	7.0866E+00
6.3069E-03	7.6791E+00	6.9365E-03	8.2382E+00	7.5662E-03	8.7651E+00
8.1959E-03	9.2612E+00	8.8256E-03	9.7276E+00	9.4553E-03	1.0165E+01
1.0085E-02	1.0576E+01	1.0715E-02	1.0960E+01	1.1344E-02	1.1319E+01
1.2604E-02	1.1965E+01	1.3863E-02	1.2521E+01	1.5122E-02	1.2995E+01
1.6382E-02	1.3394E+01	1.7641E-02	1.3723E+01	1.8901E-02	1.3989E+01
2.0160E-02	1.4197E+01	2.1419E-02	1.4351E+01	2.2679E-02	1.4457E+01
2.3938E-02	1.4519E+01	2.5197E-02	1.4541E+01	2.6457E-02	1.4526E+01
2.7716E-02	1.4478E+01	3.0235E-02	1.4298E+01	3.2754E-02	1.4021E+01
3.5272E-02	1.3668E+01	3.7791E-02	1.3257E+01	4.0310E-02	1.2800E+01
4.5347E-02	1.1800E+01	5.0385E-02	1.0744E+01	5.5422E-02	9.6845E+00
6.0460E-02	8.6573E+00	6.5497E-02	7.6854E+00	6.8016E-02	7.2247E+00
7.0535E-02	6.7823E+00	7.3054E-02	6.3588E+00	7.5572E-02	5.9547E+00
7.8091E-02	5.5701E+00	8.0610E-02	5.2049E+00	8.3129E-02	4.8589E+00
8.5647E-02	4.5318E+00	8.8166E-02	4.2230E+00	9.0685E-02	3.9320E+00
9.3204E-02	3.6583E+00	9.5722E-02	3.4011E+00	9.8241E-02	3.1598E+00
1.0076E-01	2.9338E+00	1.0328E-01	2.7221E+00	1.0580E-01	2.5243E+00
1.0832E-01	2.3395E+00	1.1083E-01	2.1670E+00	1.1335E-01	2.0063E+00
1.1587E-01	1.8565E+00	1.1839E-01	1.7171E+00	1.2091E-01	1.5875E+00
1.2343E-01	1.4670E+00	1.2595E-01	1.3551E+00	1.2847E-01	1.2512E+00
1.3098E-01	1.1548E+00	1.3350E-01	1.0655E+00	1.3602E-01	9.8274E-01
1.3854E-01	9.0609E-01	1.4106E-01	8.3514E-01	1.4358E-01	7.6950E-01
1.4610E-01	7.0880E-01	1.4862E-01	6.5270E-01	1.5113E-01	6.0086E-01
1.5365E-01	5.5299E-01	1.5617E-01	5.0879E-01	1.5869E-01	4.6801E-01
1.6121E-01	4.3038E-01	1.6373E-01	3.9569E-01	1.6625E-01	3.6370E-01
1.6877E-01	3.3423E-01	1.7128E-01	3.0707E-01	1.7380E-01	2.8206E-01
1.7632E-01	2.5903E-01	1.7884E-01	2.3784E-01	1.8136E-01	2.1833E-01
1.8388E-01	2.0039E-01	1.8640E-01	1.8388E-01	1.8892E-01	1.6871E-01
1.9143E-01	1.5476E-01	1.9395E-01	1.4193E-01	1.9647E-01	1.3015E-01
1.9899E-01	1.1933E-01	2.0151E-01	1.0939E-01	2.0403E-01	1.0026E-01
2.0655E-01	9.1882E-02	2.0907E-01	8.4189E-02	2.1158E-01	7.7130E-02
2.1410E-01	7.0652E-02	2.1662E-01	6.4709E-02	2.1914E-01	5.9259E-02
2.2166E-01	5.4260E-02	2.2418E-01	4.9676E-02	2.2670E-01	4.5474E-02
2.2922E-01	4.1622E-02	2.3173E-01	3.8092E-02	2.3425E-01	3.4858E-02
2.3677E-01	3.1894E-02	2.3929E-01	2.9179E-02	2.4181E-01	2.6692E-02
2.4433E-01	2.4414E-02	2.4685E-01	2.2328E-02	2.4937E-01	2.0419E-02
2.5188E-01	1.8671E-02	2.5440E-01	1.7070E-02	2.5692E-01	1.5606E-02
2.5944E-01	1.4265E-02	2.6196E-01	1.3039E-02	2.6448E-01	1.1917E-02
2.6574E-01	1.1392E-02	2.6700E-01	1.0890E-02	2.6826E-01	1.0410E-02
2.6952E-01	9.9514E-03	2.7078E-01	9.5124E-03	2.7203E-01	9.0926E-03
2.7329E-01	8.6911E-03	2.7455E-01	8.3072E-03	2.7581E-01	7.9401E-03
2.7707E-01	7.5890E-03	2.7833E-01	7.2533E-03	2.7959E-01	6.9323E-03
2.8085E-01	6.6254E-03	2.8211E-01	6.3319E-03	2.8337E-01	6.0514E-03
2.8463E-01	5.7831E-03	2.8589E-01	5.5266E-03	2.8715E-01	5.2814E-03
2.8841E-01	5.0470E-03	2.8967E-01	4.8229E-03	2.9093E-01	4.6086E-03
2.9218E-01	4.4038E-03	2.9344E-01	4.2081E-03	2.9470E-01	4.0209E-03
2.9596E-01	3.8420E-03	2.9722E-01	3.6710E-03	2.9848E-01	3.5075E-03

図6 J7533.PROF.DATA (WMXW10E) (続く)

2.9974E-01	3.3513E-03	3.0100E-01	3.2019E-03	3.0226E-01	3.0592E-03
3.0352E-01	2.9228E-03	3.0478E-01	2.7924E-03	3.0604E-01	2.6678E-03
3.0730E-01	2.5487E-03	3.0856E-01	2.4349E-03	3.0982E-01	2.3261E-03
3.1108E-01	2.2221E-03	3.1233E-01	2.1228E-03	3.1359E-01	2.0278E-03
3.1485E-01	1.9371E-03	3.1611E-01	1.8504E-03	3.1737E-01	1.7676E-03
3.1863E-01	1.6884E-03	3.1989E-01	1.6128E-03	3.2115E-01	1.5405E-03
3.2241E-01	1.4714E-03	3.4197E-01	1.3873E-03	3.6153E-01	1.3122E-03
3.8108E-01	1.2449E-03	4.0064E-01	1.1841E-03	4.2020E-01	1.1290E-03
4.3976E-01	1.0788E-03	4.5931E-01	1.0329E-03	4.7887E-01	9.9068E-04
4.9843E-01	9.5181E-04	5.1799E-01	9.1587E-04	5.3754E-01	8.8255E-04
5.5710E-01	8.5157E-04	5.7666E-01	8.2269E-04	5.9622E-01	7.9570E-04
6.1577E-01	7.7043E-04	6.3533E-01	7.4671E-04	6.7445E-01	7.0341E-04
7.1356E-01	6.6485E-04	7.5268E-01	6.3030E-04	7.9179E-01	5.9916E-04
8.3091E-01	5.7095E-04	8.7002E-01	5.4528E-04	9.0914E-01	5.2182E-04
9.4826E-01	5.0030E-04	9.8737E-01	4.8048E-04	1.0265E+00	4.6217E-04
1.0656E+00	4.4520E-04	1.1047E+00	4.2944E-04	1.1438E+00	4.1475E-04
1.1829E+00	4.0104E-04	1.2221E+00	3.8820E-04	1.2612E+00	3.7616E-04
1.3394E+00	3.5419E-04	1.4176E+00	3.3465E-04	1.4959E+00	3.1715E-04
1.5741E+00	3.0138E-04	1.6523E+00	2.8712E-04	1.7306E+00	2.7414E-04
1.8088E+00	2.6228E-04	1.8870E+00	2.5141E-04	1.9653E+00	2.4140E-04
2.0435E+00	2.3216E-04	2.1217E+00	2.2360E-04	2.1999E+00	2.1565E-04
2.2782E+00	2.0824E-04	2.3564E+00	2.0133E-04	2.4346E+00	1.9486E-04
2.5129E+00	1.8879E-04	2.6693E+00	1.7773E-04	2.8258E+00	1.6789E-04
2.9823E+00	1.5908E-04	3.1387E+00	1.5115E-04	3.2952E+00	1.4397E-04
3.4516E+00	1.3744E-04	3.6081E+00	1.3148E-04	3.7646E+00	1.2602E-04
3.9210E+00	1.2099E-04	4.0775E+00	1.1635E-04	4.2339E+00	1.1205E-04
4.3904E+00	1.0806E-04	4.5469E+00	1.0434E-04	4.7033E+00	1.0087E-04
4.8598E+00	9.7619E-05	5.0163E+00	9.4575E-05	5.3292E+00	8.9021E-05
5.6421E+00	8.4084E-05	5.9550E+00	7.9665E-05	6.2679E+00	7.5688E-05
6.5809E+00	7.2089E-05	6.8938E+00	6.8817E-05	7.2067E+00	6.5829E-05
7.5196E+00	6.3089E-05	7.8326E+00	6.0569E-05	8.1455E+00	5.8242E-05
8.4584E+00	5.6087E-05	8.7713E+00	5.4086E-05	9.0843E+00	5.2223E-05
9.3972E+00	5.0484E-05	9.7101E+00	4.8857E-05	1.0336E+01	4.5899E-05
1.0962E+01	4.3279E-05	1.1588E+01	4.0941E-05	1.2213E+01	3.8843E-05
1.2839E+01	3.6950E-05	1.3465E+01	3.5232E-05	1.4091E+01	3.3668E-05
1.4717E+01	3.2236E-05	1.5343E+01	3.0921E-05	1.5969E+01	2.9709E-05
1.6594E+01	2.8589E-05	1.7220E+01	2.7550E-05	1.7846E+01	2.6583E-05
1.8472E+01	2.5683E-05	1.9098E+01	2.4841E-05	1.9724E+01	2.4053E-05
2.0349E+01	2.3313E-05	2.1601E+01	2.1962E-05	2.2853E+01	2.0759E-05
2.4105E+01	1.9681E-05	2.5356E+01	1.8710E-05	2.6608E+01	1.7830E-05
2.7860E+01	1.7029E-05	2.9111E+01	1.6296E-05	3.0363E+01	1.5625E-05
3.1615E+01	1.5006E-05	3.2866E+01	1.4434E-05	3.4118E+01	1.3905E-05
3.5370E+01	1.3413E-05	3.6622E+01	1.2954E-05	3.7873E+01	1.2526E-05
3.9125E+01	1.2126E-05	4.0377E+01	1.1750E-05	4.2880E+01	1.1064E-05
4.5383E+01	1.0453E-05	4.7887E+01	9.9069E-06	5.0390E+01	9.4147E-06
5.2894E+01	8.9691E-06	5.5397E+01	8.5638E-06	5.7900E+01	8.1936E-06
6.0404E+01	7.8540E-06	6.2907E+01	7.5414E-06	6.5410E+01	7.2528E-06
6.7914E+01	6.9855E-06	7.0417E+01	6.7371E-06	7.2921E+01	6.5058E-06
7.5424E+01	6.2899E-06	7.7927E+01	6.0878E-06	8.0431E+01	5.8984E-06
8.5438E+01	5.5527E-06	9.0444E+01	5.2453E-06	9.5451E+01	4.9702E-06
1.0046E+02	4.7225E-06	1.0546E+02	4.4983E-06	1.1047E+02	4.2944E-06
1.1548E+02	4.1082E-06	1.2048E+02	3.9375E-06	1.2549E+02	3.7804E-06
1.3050E+02	3.6354E-06	1.3551E+02	3.5010E-06	1.4051E+02	3.3763E-06
1.4552E+02	3.2601E-06	1.5053E+02	3.1517E-06	1.5553E+02	3.0502E-06
1.6054E+02	2.9551E-06	1.7055E+02	2.7816E-06	1.8057E+02	2.6273E-06
1.9058E+02	2.4893E-06	2.0059E+02	2.3650E-06	2.1061E+02	2.2526E-06

図6 J7533. PROF. DATA (WMXW1OE) (続)

2.2062E+02	2.1503E-06	2.3063E+02	2.0570E-06	2.4065E+02	1.9714E-06
2.5066E+02	1.8926E-06	2.6067E+02	1.8199E-06	2.7069E+02	1.7526E-06
2.8070E+02	1.6901E-06	2.9072E+02	1.6319E-06	3.0073E+02	1.5775E-06
3.1074E+02	1.5267E-06	3.2076E+02	1.4790E-06	3.4078E+02	1.3921E-06
3.6081E+02	1.3148E-06	3.8084E+02	1.2457E-06	4.0086E+02	1.1835E-06
4.2089E+02	1.1272E-06	4.4092E+02	1.0760E-06	4.6095E+02	1.0292E-06
4.8097E+02	9.8635E-07	5.0100E+02	9.4693E-07	5.2103E+02	9.1053E-07
5.4105E+02	8.7683E-07	5.6108E+02	8.4553E-07	5.8111E+02	8.1639E-07
6.0114E+02	7.8919E-07	6.2116E+02	7.6375E-07	6.4119E+02	7.3989E-07
6.8124E+02	6.9639E-07	7.2130E+02	6.5772E-07	7.6135E+02	6.2311E-07
8.0141E+02	5.9197E-07	8.4146E+02	5.6379E-07	8.8152E+02	5.3818E-07
9.2157E+02	5.1478E-07	9.6162E+02	4.9334E-07	1.0017E+03	4.7362E-07
1.0417E+03	4.5540E-07	1.0818E+03	4.3854E-07	1.1218E+03	4.2289E-07
1.1619E+03	4.0831E-07	1.2019E+03	3.9470E-07	1.2420E+03	3.8197E-07
1.2821E+03	3.7004E-07	1.3622E+03	3.4828E-07	1.4423E+03	3.2893E-07
1.5224E+03	3.1162E-07	1.6025E+03	2.9605E-07	1.6826E+03	2.8195E-07
1.7627E+03	2.6914E-07	1.8428E+03	2.5744E-07	1.9229E+03	2.4671E-07
2.0030E+03	2.3685E-07	2.0831E+03	2.2774E-07	2.1632E+03	2.1930E-07
2.2434E+03	2.1147E-07	2.3235E+03	2.0418E-07	2.4036E+03	1.9738E-07
2.4837E+03	1.9101E-07	2.5638E+03	1.8504E-07	2.7240E+03	1.7416E-07
2.8842E+03	1.6448E-07	3.0444E+03	1.5583E-07	3.2047E+03	1.4804E-07
3.3649E+03	1.4099E-07	3.5251E+03	1.3458E-07	3.6853E+03	1.2873E-07
3.8455E+03	1.2337E-07	4.0057E+03	1.1843E-07	4.1660E+03	1.1388E-07
4.3262E+03	1.0966E-07	4.4864E+03	1.0574E-07	4.6466E+03	1.0210E-07
4.8068E+03	9.8695E-08	4.9670E+03	9.5511E-08	5.1273E+03	9.2527E-08
5.4477E+03	8.7084E-08	5.7681E+03	8.2247E-08	6.0886E+03	7.7918E-08
6.4090E+03	7.4022E-08	6.7294E+03	7.0498E-08	7.0499E+03	6.7293E-08
7.3703E+03	6.4368E-08	7.6907E+03	6.1686E-08	8.0112E+03	5.9219E-08
8.3316E+03	5.6941E-08	8.6520E+03	5.4832E-08	8.9725E+03	5.2874E-08
9.2929E+03	5.1051E-08	9.6133E+03	4.9349E-08	9.9338E+03	4.7757E-08
1.0254E+04	4.6265E-08	1.0895E+04	4.3543E-08	1.1536E+04	4.1124E-08
1.2177E+04	3.8960E-08	1.2818E+04	3.7012E-08	1.3459E+04	3.5250E-08
1.4099E+04	3.3647E-08	1.4740E+04	3.2185E-08	1.5381E+04	3.0844E-08
1.6022E+04	2.9610E-08	1.6663E+04	2.8471E-08	1.7304E+04	2.7417E-08
1.7945E+04	2.6437E-08	1.8586E+04	2.5526E-08	1.9226E+04	2.4675E-08
1.9867E+04	2.3879E-08	2.0508E+04	2.3133E-08	2.1790E+04	2.1772E-08
2.3072E+04	2.0563E-08	2.4353E+04	1.9480E-08	2.5635E+04	1.8506E-08
2.6917E+04	1.7625E-08	2.8199E+04	1.6824E-08	2.9480E+04	1.6092E-08
3.0762E+04	1.5422E-08	3.2044E+04	1.4805E-08	3.3325E+04	1.4236E-08
3.4607E+04	1.3708E-08	3.5889E+04	1.3219E-08	3.7171E+04	1.2763E-08
3.8452E+04	1.2338E-08	3.9734E+04	1.1940E-08	4.1016E+04	1.1566E-08
4.3579E+04	1.0886E-08	4.6143E+04	1.0281E-08	4.8706E+04	9.7402E-09
5.1270E+04	9.2532E-09	5.3833E+04	8.8126E-09	5.6397E+04	8.4120E-09
5.8960E+04	8.0463E-09	6.1524E+04	7.7110E-09	6.4087E+04	7.4026E-09
6.6651E+04	7.1179E-09	6.9214E+04	6.8542E-09	7.1778E+04	6.6094E-09
7.4341E+04	6.3815E-09	7.6905E+04	6.1688E-09	7.9468E+04	5.9698E-09
8.2032E+04	5.7833E-09	8.7158E+04	5.4431E-09	9.2285E+04	5.1407E-09
9.7412E+04	4.8701E-09	1.0254E+05	4.6266E-09	1.0767E+05	4.4063E-09
1.1279E+05	4.2060E-09	1.1792E+05	4.0231E-09	1.2305E+05	3.8555E-09
1.2817E+05	3.7013E-09	1.3330E+05	3.5589E-09	1.3843E+05	3.4271E-09
1.4355E+05	3.3047E-09	1.4868E+05	3.1908E-09	1.5381E+05	3.0844E-09
1.5894E+05	2.9849E-09	1.6406E+05	2.8916E-09	1.7432E+05	2.7215E-09
1.8457E+05	2.5703E-09	1.9482E+05	2.4351E-09	2.0508E+05	2.3133E-09
2.1533E+05	2.2032E-09	2.2559E+05	2.1030E-09	2.3584E+05	2.0116E-09
2.4609E+05	1.9278E-09	2.5635E+05	1.8506E-09	2.6660E+05	1.7795E-09
2.7686E+05	1.7136E-09	2.8711E+05	1.6524E-09	2.9736E+05	1.5954E-09

図6 J 7 5 3 3. PROF. DATA (WMXW10E) (続く)

3.0762E+05	1.5422E-09	3.1787E+05	1.4925E-09	3.2813E+05	1.4458E-09
3.4863E+05	1.3608E-09	3.6914E+05	1.2852E-09	3.8965E+05	1.2175E-09
4.1016E+05	1.1567E-09	4.3066E+05	1.1016E-09	4.5117E+05	1.0515E-09
4.7168E+05	1.0058E-09	4.9219E+05	9.6388E-10	5.1270E+05	9.2533E-10
5.3320E+05	8.8974E-10	5.5371E+05	8.5678E-10	5.7422E+05	8.2618E-10
5.9473E+05	7.9769E-10	6.1523E+05	7.7110E-10	6.3574E+05	7.4623E-10
6.5625E+05	7.2291E-10	6.9727E+05	6.8039E-10	7.3828E+05	6.4259E-10
7.7930E+05	6.0877E-10	8.2031E+05	5.7833E-10	8.6133E+05	5.5079E-10
9.0234E+05	5.2575E-10	9.4336E+05	5.0289E-10	9.8438E+05	4.8194E-10
1.0254E+06	4.6266E-10	1.0664E+06	4.4487E-10	1.1074E+06	4.2839E-10
1.1484E+06	4.1309E-10	1.1895E+06	3.9885E-10	1.2305E+06	3.8555E-10
1.2715E+06	3.7312E-10	1.3125E+06	3.6146E-10	1.3945E+06	3.4019E-10
1.4766E+06	3.2129E-10	1.5586E+06	3.0438E-10	1.6406E+06	2.8916E-10
1.7227E+06	2.7539E-10	1.8047E+06	2.6288E-10	1.8867E+06	2.5145E-10
1.9688E+06	2.4097E-10	2.0508E+06	2.3133E-10	2.1328E+06	2.2243E-10
2.2148E+06	2.1420E-10	2.2969E+06	2.0655E-10	2.3789E+06	1.9942E-10
2.4609E+06	1.9278E-10	2.5430E+06	1.8656E-10	2.6250E+06	1.8073E-10
2.7891E+06	1.7010E-10	2.9531E+06	1.6065E-10	3.1172E+06	1.5219E-10
3.2813E+06	1.4458E-10	3.4453E+06	1.3770E-10	3.6094E+06	1.3144E-10
3.7734E+06	1.2572E-10	3.9375E+06	1.2049E-10	4.1016E+06	1.1567E-10
4.2656E+06	1.1122E-10	4.4297E+06	1.0710E-10	4.5938E+06	1.0327E-10
4.7578E+06	9.9712E-11	4.9219E+06	9.6388E-11	5.0859E+06	9.3279E-11
5.2500E+06	9.0364E-11	5.5781E+06	8.5048E-11	5.9063E+06	8.0323E-11
6.2344E+06	7.6096E-11	6.5625E+06	7.2291E-11	6.8906E+06	6.8849E-11
7.2188E+06	6.5719E-11	7.5469E+06	6.2862E-11	7.8750E+06	6.0243E-11
8.2031E+06	5.7833E-11	8.5312E+06	5.5608E-11	8.8594E+06	5.3549E-11
9.1875E+06	5.1636E-11	9.5156E+06	4.9856E-11	9.8437E+06	4.8194E-11
1.0172E+07	4.6639E-11	1.0500E+07	4.5182E-11	1.1156E+07	4.2524E-11
1.1812E+07	4.0162E-11	1.2469E+07	3.8048E-11	1.3125E+07	3.6146E-11
1.3781E+07	3.4424E-11	1.4437E+07	3.2860E-11	1.5094E+07	3.1431E-11
1.5750E+07	3.0121E-11	1.6406E+07	2.8916E-11	1.7062E+07	2.7804E-11
1.7719E+07	2.6774E-11	1.8375E+07	2.5818E-11	1.9031E+07	2.4928E-11
1.9687E+07	2.4097E-11	2.0344E+07	2.3320E-11	2.1000E+07	2.2591E-11

999903

図6 J7533.PROF.DATA (WMXW10E)

```

T(07) W(00) C(01) I(08) E(01) SRP
CLASS(F) MSGCLASS(S) MSGLEVEL(1,1,2) NOTIFY(J7533)
/** T(07) W(00) C(01) I(08) E(01) SRP -- CLASS(F)
/** T(07) W(00) C(01) I(08) E(01) SRP -- CLASS(L)
/** ' ,RGN=9M' IS IMPORTANT.
//GLIB EXEC LMGOEX,LM='J7533.GLIB',A='ERRCUT=0,DFB=YES',RGN=9M
//SYSPRINT DD DUMMY
//FT06F001 DD DSN=J7533.LPGLIB.DATA,DISP=SHR
//FT01F001 DD DSN=J7533.GLIBKY.DATA(C0625),DISP=SHR,LABEL=(,,,IN)
/** INPUT FILE FROM PROF
//FT10F001 DD DSN=J7533.GJ0625.DATA,DISP=SHR,LABEL=(,,,IN)
//FT13F001 DD UNIT=TSSWK,SPACE=(TRK,(300,10)),DISP=(NEW,DELETE),
// DCB=(RECFM=FB,LRECL=80,BLKSIZE=3120,DSORG=PS)
//FT14F001 DD UNIT=TSSWK,SPACE=(TRK,(300,10)),DISP=(NEW,DELETE),
// DCB=(RECFM=FB,LRECL=80,BLKSIZE=3120,DSORG=PS)
//FT15F001 DD UNIT=TSSWK,SPACE=(TRK,(500,10)),DISP=(NEW,DELETE),
// DCB=(RECFM=FB,LRECL=80,BLKSIZE=3120,DSORG=PS)
//FT16F001 DD UNIT=TSSWK,SPACE=(TRK,(300,10)),DISP=(NEW,DELETE),
// DCB=(RECFM=FB,LRECL=80,BLKSIZE=3120,DSORG=PS)
/** FT20 AND FT23-25 ARE DIRECT ACCESS FILES.
//FT20F001 DD UNIT=TSSWK,SPACE=(CYL,050,,CONTIG),DISP=(NEW,DELETE),
// DCB=(RECFM=F,LRECL=16668,BLKSIZE=16668,DSORG=PS)
//FT23F001 DD UNIT=TSSWK,SPACE=(CYL,020,,CONTIG),DISP=(NEW,DELETE),
// DCB=(RECFM=F,LRECL=4068,BLKSIZE=4068,DSORG=PS)
//FT24F001 DD UNIT=TSSWK,SPACE=(CYL,010,,CONTIG),DISP=(NEW,DELETE),
// DCB=(RECFM=F,LRECL=26048,BLKSIZE=26048,DSORG=PS)
//FT25F001 DD UNIT=TSSWK,SPACE=(CYL,150,,CONTIG),DISP=(NEW,DELETE),
// DCB=(RECFM=F,LRECL=31320,BLKSIZE=31320,DSORG=PS)
//FT31F001 DD DUMMY
/** OUTPUT FILE FOR BLIB
//FT32F001 DD DSN=J7533.GLIBOUT.DATA(C0625),DISP=SHR
//FT33F001 DD DUMMY
//FT34F001 DD DUMMY
//FT46F001 DD UNIT=TSSWK,SPACE=(TRK,(500,10)),DISP=(NEW,DELETE),
// DCB=(RECFM=FB,LRECL=80,BLKSIZE=3120,DSORG=PS)
//FT47F001 DD UNIT=TSSWK,SPACE=(TRK,(300,10)),DISP=(NEW,DELETE),
// DCB=(RECFM=FB,LRECL=80,BLKSIZE=3120,DSORG=PS)
/** FT56 IS ALSO A DIRECT ACCESS FILE.
//FT56F001 DD UNIT=TSSWK,SPACE=(CYL,150,,CONTIG),DISP=(NEW,DELETE),
// DCB=(RECFM=F,LRECL=31360,BLKSIZE=31360,DSORG=PS)
//SYSIN DD *
C-12-00 (JENDL-3.2) INFINITE DILUTION CROSS SECTION AT 300K 94/06/21
320JENDL-3.2 0 (I6,3A4,I6) IFILDX,IFILNM,IDBG
2 1 1 1 40 1 (6I6) IPR3,IPR4,IPR5,IPR6,LINMAX,INORM
000000 1 0 0 0 0 0 0 0
0 916 1 124 0 0125 1 0 0 0 DOT
1 920J7533.GLIBOUT.DATA(C0625) 1 BERM
0 902 1 298 0 9497 J-SHIELD LIB JSL
0 902 1 298 0 9497 J-SHIELD GAMMA LIB JSL
/**
//

```

☒ 7 J 7 5 3 3 . G L I B . C N T L (C 0 6 2 5)

*GLIB SYSTEM 1994-JUN-21 SET UP.

*-----SPECIFY FOLLOWING ITEMS-----

* NEUTRON GROUP:

* NNG: NEUTRON ENERGY GROUPS (I6)

* <=250

125

* ENG(I): I=1 TO NNG+1 ENERGY BOUNDARY. DECENDING ORDER.

* (6E12.5)

0.16487E+08	0.16231E+08	0.15980E+08	0.15732E+08	0.15488E+08	0.15248E+08
0.15012E+08	0.14779E+08	0.14550E+08	0.14324E+08	0.14102E+08	0.13883E+08
0.13668E+08	0.13456E+08	0.13248E+08	0.13042E+08	0.12840E+08	0.12641E+08
0.12445E+08	0.12252E+08	0.12062E+08	0.11875E+08	0.11691E+08	0.11510E+08
0.11331E+08	0.11156E+08	0.10983E+08	0.10812E+08	0.10645E+08	0.10480E+08
0.10317E+08	0.10157E+08	0.99999E+07	0.93940E+07	0.88249E+07	0.82902E+07
0.77879E+07	0.73161E+07	0.68728E+07	0.64564E+07	0.60652E+07	0.56978E+07
0.53525E+07	0.50282E+07	0.47236E+07	0.44374E+07	0.41686E+07	0.39160E+07
0.36787E+07	0.34559E+07	0.32465E+07	0.30498E+07	0.28650E+07	0.26914E+07
0.25284E+07	0.23752E+07	0.22313E+07	0.20961E+07	0.19691E+07	0.18498E+07
0.17377E+07	0.15335E+07	0.13533E+07	0.11943E+07	0.10540E+07	0.93013E+06
0.82084E+06	0.72438E+06	0.63927E+06	0.56415E+06	0.49786E+06	0.43936E+06
0.38774E+06	0.34217E+06	0.30197E+06	0.26649E+06	0.23517E+06	0.20754E+06
0.18315E+06	0.16163E+06	0.14264E+06	0.12588E+06	0.11109E+06	0.98035E+05
0.86515E+05	0.76349E+05	0.67378E+05	0.59461E+05	0.52474E+05	0.46308E+05
0.40867E+05	0.36065E+05	0.31827E+05	0.28087E+05	0.24787E+05	0.21874E+05
0.19304E+05	0.15034E+05	0.11709E+05	0.91186E+04	0.71016E+04	0.55307E+04
0.43073E+04	0.33546E+04	0.26125E+04	0.20346E+04	0.15846E+04	0.12341E+04
0.96110E+03	0.58293E+03	0.35357E+03	0.21445E+03	0.13007E+03	0.78891E+02
0.47850E+02	0.29023E+02	0.17603E+02	0.10677E+02	0.64758E+01	0.39278E+01
0.23823E+01	0.14449E+01	0.87640E+00	0.53156E+00	0.32241E+00	0.10010E-04

* NT: NUMBER OF TEMPERATURES (I6)

* <=10

5

* T(I): I=1,NT TEMPERATURES (6E12.5) ASCENDING ORDER.

0. 300. 600. 900. 2100.

* NSO: NUMBER OF SIGO PARAMETERS. EXCEPT INFINITE DILUTION.

* <=24

9

* SIGO(I): I=1,NSO SIGO VALUE. (6E12.5) ASCENDING ORDER.

0.0 0.17783E+00 1. 10. 100. 1000.

1. E+04 1.0 E+05 1.00000E+06

* TO: TEMPERATURE FOR INFINITE DILUTE CROSS SECTION. (E12.5)

300.

* SIGI: SIGO FOR INFINITE DILUTE CROSS SECTIONS. (E12.5)

1.0 E+50

* NRX: NUMBER OF MUTUAL SELF-SHIELDING PARAMETER (I6)

* USUALLY 0 ==> NO CONSIDERATION FOR MUTUAL SHIELDING.

0

* LP: PL MATRIX ORDER REQUESTED. (I6)

* <=20 IF NEGATIVE: PL VAR REQUESTED IN CMS FLAME.

3

* GAMMA GROUP:

* NNG: GAMMA ENERGY GROUPS (I6)

* <=100

36

* ENGG(I): I=1 TO NNG+1 ENERGY BOUNDARY. DECENDING ORDER.

* (6E12.5)

☒ 8 J 7 5 3 3. GLIBKY. DATA (C 0 6 2 5) (続<)

1.40000E+07 1.20000E+07 1.00000E+07 8.00000E+06 7.50000E+06 7.00000E+06
 6.50000E+06 6.00000E+06 5.50000E+06 5.00000E+06 4.50000E+06 4.00000E+06
 3.50000E+06 3.00000E+06 2.50000E+06 2.00000E+06 1.66000E+06 1.50000E+06
 1.33000E+06 1.00000E+06 8.00000E+05 7.00000E+05 6.00000E+05 5.12000E+05
 5.10000E+05 4.50000E+05 4.00000E+05 3.00000E+05 2.00000E+05 1.50000E+05
 1.00000E+05 7.50000E+04 6.00000E+04 4.50000E+04 3.00000E+04 2.00000E+04
 1.00000E+04

*

 * MATERIAL DICTIONARY
 * NUMBER OF MAT DATA INCLUDED IN THIS TABLE. (I6)
 1
 * ISEQ EVFIL MAT IZ IA NUC FILE-NAME
 * I6, A6,2X, I6, I6, I6,1X, A7, A40

 1JNDL32 0625 6 12 6C12 J7533.GJ0625.DATA

☒8 J 7 5 3 3 . G L I B K Y . D A T A (C 0 6 2 5)

```

T(02) W(06) C(00) I(04) E(01) SRP
CLASS(L) MSGCLASS(S) MSGLEVEL(1,1,2) NOTIFY(J7533)
//* ',RGN=9M' IS IMPORTANT.
//BLIBGB EXEC LMGOEX,LM='J7533.BLIB',RGN=9M
//SYSPRINT DD DUMMY
//FT06F001 DD DSN=J7533.LPBLIB.DATA,DISP=SHR
//SYSIN DD DSN=J7533.BLIB.DATA(C0625),DISP=SHR,LABEL=(,,,IN)
//* #1 ITITLE(20) (20A4)
//* #2 IDBG,NGRPO,MMAXD,LMAX40 (12I6)
//* #3 IDUM,NGRPN,MMAXN,LMAX4N (12I6)
//* #4 IOPHD,IOPDX,IOPNUC,IPROP (12I6)
//*+====
//*1 #5 NPOS,NCODE,MAT,EVF,DSNAME (3I6,3A4,A40)
//*+==== REPEAT AS NECESSARY TIMES
//* 7 60 0625 JENDL-3.2 J7533.BERM125B.DATA
//FT11F001 DD DSN=J7533.GLIBKY.DATA(C0625),DISP=SHR,LABEL=(,,,IN)
//FT12F001 DD DSN=J7533.PROF.DATA(DETX125G),DISP=SHR,LABEL=(,,,IN)
//FT13F001 DD DSN=J7533.PROF.DATA(FLXCH125),DISP=SHR,LABEL=(,,,IN)
//* FT14 : OLD BERMUDA LIB
//*FT14F001 DD DSN=J7533.BERM125B.DATA,DISP=SHR,LABEL=(,,,IN)
//FT14F001 DD DSN=J7533.BERM125A.DATA,DISP=SHR,LABEL=(,,,IN)
//FT15F001 DD UNIT=TSSWK,SPACE=(TRK,(500,50)),DISP=(NEW,DELETE),
// DCB=(RECFM=VBS,LRECL=23472,BLKSIZE=23476,DSORG=PS)
//FT16F001 DD UNIT=TSSWK,SPACE=(TRK,(500,50)),DISP=(NEW,DELETE),
// DCB=(RECFM=VBS,LRECL=23472,BLKSIZE=23476,DSORG=PS)
//* FT17 : NEW BERMUDA LIB (THE FINAL OUTPUT FILE)
//*FT17F001 DD DSN=J7533.BERM125A.DATA,DISP=SHR
//FT17F001 DD DSN=J7533.BERM125B.DATA,DISP=SHR
//* INPUT FILE FROM GLIB
//FT21F001 DD DSN=J7533.GLIBOUT.DATA(C0625),DISP=SHR,LABEL=(,,,IN)
//* -----
//* NEXT IS A SERVICE ROUTINE FOR PRINTING OUT THE FINAL RESULTS.
//* -----
//NLIBDUMP EXEC LMGOEX,LM='J7533.NLIB'
//CMDIN DD DUMMY
//CMDOUT DD DUMMY
//FT99F001 DD DUMMY
//SYSIN DD *
125 30
J7533.BERM125B.DATA
 1 1
 60 1
-1
/*
//

```

☒9 J 7 5 3 3 . B L I B . C N T L (C 0 6 2 5)

TEST	BLIBGB	BERMUDA LIB	UPDATE.	CASE #7	0-125	7-60	1-NUCLIDE	UPDATE
0	125	30	40					
0	125	30	40					
1	1	1	0					
7	60	0625	JENDL-3.2	J7533.BERM125B.DATA				

☒10 J 7 5 3 3 . B L I B . D A T A (C 0 6 2 5)

125FLUX		INFINITE DILUTION FLUX				
0.37683E+03	0.36947E+03	0.36506E+03	0.35917E+03	0.35328E+03	0.34739E+03	
0.34298E+03	0.33709E+03	0.33267E+03	0.32678E+03	0.32237E+03	0.31648E+03	
0.31206E+03	0.30618E+03	0.30323E+03	0.29734E+03	0.29293E+03	0.28851E+03	
0.28410E+03	0.27968E+03	0.27526E+03	0.27085E+03	0.26643E+03	0.26349E+03	
0.25760E+03	0.25466E+03	0.25171E+03	0.24582E+03	0.24288E+03	0.23994E+03	
0.23552E+03	0.23125E+03	0.89188E+03	0.83772E+03	0.78708E+03	0.73939E+03	
0.69449E+03	0.65254E+03	0.61294E+03	0.57585E+03	0.54081E+03	0.50828E+03	
0.47737E+03	0.44837E+03	0.42129E+03	0.39567E+03	0.37183E+03	0.34931E+03	
0.32796E+03	0.30824E+03	0.28954E+03	0.27203E+03	0.25554E+03	0.23994E+03	
0.22551E+03	0.21182E+03	0.19901E+03	0.18694E+03	0.17561E+03	0.16501E+03	
0.30058E+03	0.26525E+03	0.23405E+03	0.20652E+03	0.18234E+03	0.16087E+03	
0.14199E+03	0.12528E+03	0.11058E+03	0.97579E+02	0.86112E+02	0.75985E+02	
0.67079E+02	0.59174E+02	0.52227E+02	0.46103E+02	0.40671E+02	0.35902E+02	
0.31677E+02	0.27953E+02	0.24671E+02	0.21771E+02	0.19217E+02	0.16957E+02	
0.14964E+02	0.13205E+02	0.11654E+02	0.10285E+02	0.90764E+01	0.80092E+01	
0.70685E+01	0.62383E+01	0.55053E+01	0.48576E+01	0.42879E+01	0.37830E+01	
0.62854E+01	0.48944E+01	0.38131E+01	0.29690E+01	0.23124E+01	0.18008E+01	
0.14024E+01	0.10924E+01	0.85067E+00	0.66240E+00	0.51594E+00	0.40186E+00	
0.55667E+00	0.33762E+00	0.20478E+00	0.12421E+00	0.75335E-01	0.45692E-01	
0.27713E-01	0.16810E-01	0.10195E-01	0.61842E-02	0.37507E-02	0.22750E-02	
0.13799E-02	0.83683E-03	0.50760E-03	0.30787E-03	0.99989E+00		
125CHI		FISSION SPECTRUM (DUMMY)				
0.0	0.0	0.0	0.0	0.0	0.0	
0.0	0.0	0.0	0.0	0.0	0.0	
0.0	0.0	0.0	0.0	0.0	0.0	
0.0	0.0	0.0	0.0	0.0	0.0	
0.0	0.0	0.0	0.0	0.0	0.0	
0.0	0.0	0.0	0.0	0.0	0.0	
0.0	0.0	0.0	0.0	0.0	0.0	
0.0	0.0	0.0	0.0	0.0	0.0	
0.0	0.0	0.0	0.0	0.0	0.0	
0.0	0.0	0.0	0.0	0.0	0.0	
0.0	0.0	0.0	0.0	0.0	0.0	
0.0	0.0	0.0	0.0	0.0	0.0	
0.0	0.0	0.0	0.0	0.0	0.0	
0.0	0.0	0.0	0.0	0.0	0.0	
0.0	0.0	0.0	0.0	0.0	0.0	
0.0	0.0	0.0	0.0	0.0	0.0	
0.0	0.0	0.0	0.0	0.0	0.0	
0.0	0.0	0.0	0.0	0.0	0.0	
0.0	0.0	0.0	0.0	0.0	0.0	
0.0	0.0	0.0	0.0	0.0	0.0	
0.0	0.0	0.0	0.0	0.0	0.0	
0.0	0.0	0.0	0.0	0.0	0.0	

☒12 J 7 5 3 3. PROF. DATA (FLXCH125)

4. 適用性テスト

4.1 BERM125X.DATA との比較

JAERI 1327¹⁾ の Fig. 5.1 に与えられている BERMUDA-1DN における 117群 の例題を用いて、FT04 で J439B.BERMJ3.DATA を用いた場合と J439B.BERM125X.DATA を用いた場合の 2ケース について、1次元中性子輸送コード BERMUDA-1DN による計算を行い、結果を比較した。結果の中性子束分布は、第116群 までは大きな差は認められなかった。しかし、第117群 (サーマル群) の第1, 第2領域 における中性子束の値が、新ライブラリーの方が数桁小さい値になっている。

使用核種は ${}^6\text{Li}$, ${}^7\text{Li}$, C, Cr, Mn, Fe および Ni の 7種類 であるので、これらのデータの影響を見るため、核種の密度をそのままにして、1核種毎にコードナンバーを変えて、それぞれ BERMJ3 と BERM125X を用いた計算を実行して比較した。

その結果、 ${}^6\text{Li}$, ${}^7\text{Li}$ とも ${}^7\text{Li}$ のコードナンバー (37) で実行した場合に、両者の計算結果の間にはほとんど差がなくなることが判明した。即ち、 ${}^6\text{Li}$ の核データの値が従来の JENDL-3PR2 と、新しい JENDL-3.2 との間で相異のあることが分った。従って NLIB で、新旧両ライブラリー内の ${}^6\text{Li}$ の群定数を dump して比較したところ、離散レベルの非弾性散乱のデータに相異があることが判明した。dump リストは付録に、新ライブラリーの ${}^6\text{Li}$ の場合のみであるが掲載してある。

4.2 Li-6 の離散レベル非弾性散乱のデータ

BERM125X, BERMJ3 共にレベル数は 30 あり、レベル断面積と Q-値には大差ない。しかし BERM125X では、第3レベル (Q=2.185 MeV) と第9レベル (Q=4.31 MeV) のみは非等方のデータが与えられ、これらは BERMJ3 と大差のないものであるが、残りの 28レベル (第1, 2, 4~8, 10~30レベル) では、旧ライブラリーには重心系で等方のデータ (即ち、ルジャンドル係数は LG=0 の場合の $a_0=1$ のみ) が与えられているにすぎないが、BERMJ3 では LG=1 までのデータが与えられていて、重心系で linear な、前方散乱のある角度分布になっている。次ページ以下の、図13 と 14 に、第1レベル (Q=1.5 MeV) についての新旧のデータの例が掲げられている。

このため、サーマル群が高エネルギー側から受ける散乱源が、球体系の外側へ向う成分が多くなり、 ${}^6\text{Li}$ を含む第2領域よりも球の中心側の第1領域側で、中性子束が小さくなったものと解釈される。従って、少なくとも第4.1節で扱った 7核種のうち、 ${}^6\text{Li}$ の離散レベル非弾性散乱の、非等方データが JENDL-3.2 では JENDL-3PR2 よりも大巾に改善されたと言えよう。

```

*****
*
*      << LEGENDRE COEFFICIENT TABLE >>
*
*      LIBRARY NAME = J4398.BERMJ3.DATA
*      CODE NUMBER  =   36
*      LEVEL        =   1   Q-VALUE = 1.50000E+06
*****
    
```

NO (GROUP)	SCATTERING	ORDER	LEGENDRE COEFFICIENT
1	6.59780E-05	1	2.19650E-01
2	6.82930E-05	1	2.17540E-01
3	7.08630E-05	1	2.15460E-01
4	7.36980E-05	1	2.13410E-01
5	7.66450E-05	1	2.11390E-01
6	7.96710E-05	1	2.09410E-01
7	8.28690E-05	1	2.07450E-01
8	8.61520E-05	1	2.05530E-01
9	8.96480E-05	1	2.03630E-01
10	9.32160E-05	1	2.01770E-01
11	9.69550E-05	1	1.99670E-01
12	1.01590E-04	1	1.96320E-01
13	1.06260E-04	1	1.92830E-01
14	1.11110E-04	1	1.89400E-01
15	1.16300E-04	1	1.86020E-01
16	1.21580E-04	1	1.82690E-01
17	1.27280E-04	1	1.79420E-01
18	1.33100E-04	1	1.76190E-01
19	1.39200E-04	1	1.73020E-01
20	1.45580E-04	1	1.69890E-01
21	1.52610E-04	1	1.66810E-01
22	1.61300E-04	1	1.63780E-01
23	1.70280E-04	1	1.60800E-01
24	1.79970E-04	1	1.57860E-01
25	1.90010E-04	1	1.54970E-01
26	2.00110E-04	1	1.52130E-01
27	2.10880E-04	1	1.49330E-01
28	2.21530E-04	1	1.46570E-01
29	2.32020E-04	1	1.43860E-01
30	2.43750E-04	1	1.41180E-01
31	2.56000E-04	1	1.38540E-01
32	2.68020E-04	1	1.35950E-01
33	2.95510E-04	1	1.29560E-01
34	3.43280E-04	1	1.19980E-01
35	4.03230E-04	1	1.10970E-01
36	4.77050E-04	1	1.02500E-01
37	5.73400E-04	1	9.45520E-02
38	6.94090E-04	1	8.70950E-02
39	8.29000E-04	1	8.00950E-02
40	9.77070E-04	1	7.35090E-02
41	1.13750E-03	1	6.73330E-02
42	1.31590E-03	1	6.15210E-02
43	1.52610E-03	1	5.60540E-02
44	1.76000E-03	1	5.09400E-02
45	1.98880E-03	1	4.61170E-02

PAGE 1 OF 2 TO CONTINUED

図13 Li-6 第1レベル非弾性散乱データ (新ライブラリー) (続く)

```

*****
*
*      << LEGENDRE COEFFICIENT TABLE >>
*
*  LIBRARY NAME = J439B.BERMJ3.DATA
*  CODE NUMBER  =   36
*  LEVEL        =   1   Q-VALUE = 1.50000E+06
*****
    
```

NO	SCATTERING	ORDER	LEGENDRE COEFFICIENT
46	2.31940E-03	1	4.15830E-02
47	2.67350E-03	1	3.73420E-02
48	2.83600E-03	1	3.33760E-02
49	2.91190E-03	1	2.96270E-02
50	2.69230E-03	1	2.61410E-02
51	2.34920E-03	1	2.28260E-02
52	2.37210E-03	1	1.95920E-02
53	3.58580E-03	1	1.66610E-02
54	4.89700E-03	1	1.39450E-02
55	1.62800E-02	1	1.10550E-02
56	3.58860E-02	1	9.00830E-03
57	2.83800E-02	1	6.77520E-03
58	1.99430E-02	1	4.65100E-03
59	1.13490E-02	1	2.69200E-03
60	3.06850E-03	1	1.06520E-03

PAGE 2 OF 2

図13 Li-6 第1レベル非弾性散乱データ (新ライブラリー)

```

*****
*
*      << LEGENDRE COEFFICIENT TABLE >>
*
*  LIBRARY NAME = J439B.BERM125X.DATA
*  CODE NUMBER  =   36
*  LEVEL        =   1   Q-VALUE = 1.50000E+06
*****
    
```

NO	SCATTERING	ORDER LEGENDRE COEFFICIENT
1	6.59750E-05	0
2	6.82900E-05	0
3	7.08590E-05	0
4	7.36940E-05	0
5	7.66410E-05	0
6	7.96670E-05	0
7	8.28640E-05	0
8	8.61480E-05	0
9	8.96440E-05	0
10	9.32120E-05	0
11	9.69500E-05	0
12	1.01590E-04	0
13	1.06260E-04	0
14	1.11110E-04	0
15	1.16300E-04	0
16	1.21570E-04	0
17	1.27270E-04	0
18	1.33100E-04	0
19	1.39190E-04	0
20	1.45570E-04	0
21	1.52600E-04	0
22	1.61290E-04	0
23	1.70270E-04	0
24	1.79950E-04	0
25	1.90000E-04	0
26	2.00090E-04	0
27	2.10860E-04	0
28	2.21510E-04	0
29	2.32010E-04	0
30	2.43730E-04	0
31	2.55980E-04	0
32	2.68010E-04	0
33	2.95280E-04	0
34	3.43010E-04	0
35	4.02880E-04	0
36	4.76610E-04	0
37	5.72830E-04	0
38	6.93430E-04	0
39	8.28290E-04	0
40	9.76230E-04	0
41	1.13670E-03	0
42	1.31490E-03	0
43	1.52480E-03	0
44	1.75890E-03	0
45	1.98740E-03	0

PAGE 1 OF 2 TO CONTINUED

図14 Li-6第1レベル非弾性散乱データ (旧ライブラリー) (続く)

```

*****
*
*      << LEGENDRE COEFFICIENT TABLE >>
*
*      LIBRARY NAME = J439B.BERM125X.DATA
*      CODE NUMBER  =   36
*      LEVEL        =   1   Q-VALUE = 1.50000E+06
*****

```

NO	SCATTERING	ORDER LEGENDRE COEFFICIENT
46	2.31750E-03	0
47	2.67180E-03	0
48	2.83560E-03	0
49	2.91170E-03	0
50	2.69410E-03	0
51	2.35100E-03	0
52	2.36800E-03	0
53	3.57870E-03	0
54	4.89050E-03	0
55	1.61310E-02	0
56	3.58970E-02	0
57	2.84250E-02	0
58	1.99860E-02	0
59	1.13930E-02	0
60	3.10890E-03	0

PAGE 2 OF 2

図14 Li-6 第1レベル非弾性散乱データ (旧ライブラリー)

5. あとがき

JENDL-3.2 核データファイル を基に、放射線輸送コードシステム BERMUDA の中性子及び随伴中性子輸送計算サブシステム で用いる、30核種の新しい中性子群定数ライブラリー J439B.BERMJ3.DATA が完成した。これを用いることにより、より精度の高い中性子輸送計算が可能になった。

この新ライブラリーの使用法は、文献1)及び2)に述べられている BERMUDA コードの LMGOE X の JCL で、

```
//FT04F001 DD DISP=SHR,DSN=J439B.BERM125X.DATA,LABEL=(,..,IN)
```

の代わりに、

```
//FT04F001 DD DISP=SHR,DSN=J439B.BERMJ3.DATA,LABEL=(,..,IN)
```

を用いればよい。

次の目標としては、BERMUDA のガンマ線輸送計算サブシステム⁸⁾ で用いる、同じ30核種のガンマ線群定数ライブラリー [微視的な全断面積 σ_t と (n,γ) 生成断面積とから成る] も、JENDL-3.2 核データファイル を基に、作成することを考えている。

謝 辞

JENDL-3.2 核データライブラリーの使用に際してお世話になった、日本原子力研究所 核データセンター の中島 豊、中川 庸雄、成田 孟 の諸氏に感謝いたします。

5. あとがき

JENDL-3.2 核データファイル を基に、放射線輸送コードシステム BERMUDA の中性子及び随伴中性子輸送計算サブシステム で用いる、30 核種の新しい中性子群定数ライブラリー J439B.BERMJ3.DATA が完成した。これを用いることにより、より精度の高い中性子輸送計算が可能になった。

この新ライブラリーの用法は、文献1)及び2)に述べられている BERMUDA コードの LMGOEX の JCL で、

```
//FT04F001 DD DISP=SHR,DSN=J439B.BERM125X.DATA,LABEL=(,..,IN)
```

の代わりに、

```
//FT04F001 DD DISP=SHR,DSN=J439B.BERMJ3.DATA,LABEL=(,..,IN)
```

を用いればよい。

次の目標としては、BERMUDA のガンマ線輸送計算サブシステム⁸⁾ で用いる、同じ 30 核種のガンマ線群定数ライブラリー [微視的な全断面積 σ_t と (n,γ) 生成断面積とから成る] も、JENDL-3.2 核データファイル を基に、作成することを考えている。

謝 辞

JENDL-3.2 核データライブラリーの使用に際してお世話になった、日本原子力研究所 核データセンター の中島 豊、中川 庸雄、成田 孟 の諸氏に感謝いたします。

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付 録 L i - 6 の 群 定 数 デ ー タ

PARAMETER & INPUT DATA LIST

NMAX	:	NEUTRON ENERGY GROUP	-----										
NMAX1	:	NMAX + 1	-----	125									
MMA	:	NUMBER OF NUCLIDE	-----	126									
NSO	:	NUMBER OF SIGMAO	-----	30									
NTP	:	NUMBER OF TEMPERATURE	-----	9									
NDET	:	NUMBER OF DETECTOR X-SECTION	-----	4									
MXLVL	:	MAX. NUMBER OF LEVEL	-----	1									
MXLVL1	:	MXLVL - 1	-----	41									
LPMAX	:	ORDER OF LEGENDRE EXPANSION	-----	40									
NPMT	:	NO OF REACTION IN 1-D DATA	-----	20									
NPFT	:	NO OF REACTION IN F-TABLE	-----	4									
LIN	:	LOGICAL UNIT NO OF LIBRARY	-----	5									
DSNLIB	:	BERMUDA-1DN NEW FILE NAME	-----	10									
IOPT1	:	HEADER PART PRINT OPTION	-----	J439B.BERMJ3.DATA									
IOPT2	:	DETECTOR X-SECTION PRINT OPTION	-----	1									
MEMORY	:	RESERVED MEMORY	-----	1									
MAXMEM	:	USED MEMORY	-----	200000									
DYNAMIC MEMORY LOCATION	:		-----	162732									
				1	127	252	377	407	532	562	592	1792	1822
				1831	1835	1837	1962	2087	7212	12337	114837	114867	114897
				114927	114957	118707	119787	120867	121947	123027	124107	124607	140232
				162732									

ENTER *NMAX,MMA* IN FREE FORMAT
 NMAX : NEUTRON ENERGY GROUPS
 IF NMAX=0 , THEN NMAX IS RESET 120
 MMA : NUMBER OF NUCLIDES
 IF MMA=0 , THEN MMA IS RESET 30

ENTER DATA SET NAME OF BERMUDA-1DN NEW LIBRARY (44A1)

ENTER PRINT OPTION *IOPT1,IOPT2* IN FREE FORMAT
 IOPT1 : PRINT OPTION FOR HEADER PART

= 0 : PRINT OFF
 = 1 : PRINT ON

IOPT2 : PRINT OPTION FOR DETECTOR CROSS SECTION

= 0 : PRINT OFF
 = 1 : PRINT ON

 * HEADER PRINT
 * << NEUTRON ENERGY GROUP STRUCTURE >>
 *
 * LIBRARY NAME = J439B.BERMJ3.DATA

 PART-1 *
 * * * * *
 * * * * *
 * * * * *

PAGE 1 OF 3

GROUP NO	UPPER ENERGY	LOWER ENERGY	MIDDLE ENERGY	LETHARGY	FISSION SPECTRUM	WEIGHTING FLUX
1	1.64870E+07	1.62310E+07	1.63585E+07	0.01565	0.00000E+00	3.76830E+02
2	1.62310E+07	1.59800E+07	1.61050E+07	0.01558	0.00000E+00	3.69470E+02
3	1.59800E+07	1.57320E+07	1.58555E+07	0.01564	0.00000E+00	3.65060E+02
4	1.57320E+07	1.54880E+07	1.56095E+07	0.01563	0.00000E+00	3.59170E+02
5	1.54880E+07	1.52480E+07	1.53675E+07	0.01562	0.00000E+00	3.53280E+02
6	1.52480E+07	1.50120E+07	1.51295E+07	0.01560	0.00000E+00	3.47390E+02
7	1.50120E+07	1.47790E+07	1.48950E+07	0.01564	0.00000E+00	3.42980E+02
8	1.47790E+07	1.45500E+07	1.46641E+07	0.01562	0.00000E+00	3.37090E+02
9	1.45500E+07	1.43240E+07	1.44366E+07	0.01565	0.00000E+00	3.32670E+02
10	1.43240E+07	1.41020E+07	1.42126E+07	0.01562	0.00000E+00	3.26780E+02
11	1.41020E+07	1.38830E+07	1.39921E+07	0.01565	0.00000E+00	3.22370E+02
12	1.38830E+07	1.36680E+07	1.37751E+07	0.01561	0.00000E+00	3.16480E+02
13	1.36680E+07	1.34560E+07	1.35616E+07	0.01563	0.00000E+00	3.12060E+02
14	1.34560E+07	1.32480E+07	1.33516E+07	0.01558	0.00000E+00	3.06180E+02
15	1.32480E+07	1.30420E+07	1.31446E+07	0.01567	0.00000E+00	3.03230E+02
16	1.30420E+07	1.28400E+07	1.29406E+07	0.01561	0.00000E+00	2.97340E+02
17	1.28400E+07	1.26410E+07	1.27401E+07	0.01562	0.00000E+00	2.92930E+02
18	1.26410E+07	1.24450E+07	1.25426E+07	0.01563	0.00000E+00	2.88510E+02
19	1.24450E+07	1.22520E+07	1.23481E+07	0.01563	0.00000E+00	2.84100E+02
20	1.22520E+07	1.20620E+07	1.21566E+07	0.01563	0.00000E+00	2.79680E+02
21	1.20620E+07	1.18750E+07	1.19681E+07	0.01562	0.00000E+00	2.75260E+02
22	1.18750E+07	1.16910E+07	1.17826E+07	0.01562	0.00000E+00	2.70850E+02
23	1.16910E+07	1.15100E+07	1.16001E+07	0.01560	0.00000E+00	2.66430E+02
24	1.15100E+07	1.13310E+07	1.14201E+07	0.01567	0.00000E+00	2.63490E+02
25	1.13310E+07	1.11560E+07	1.12332E+07	0.01556	0.00000E+00	2.57600E+02
26	1.11560E+07	1.09830E+07	1.10692E+07	0.01563	0.00000E+00	2.54660E+02
27	1.09830E+07	1.08120E+07	1.08972E+07	0.01569	0.00000E+00	2.51710E+02
28	1.08120E+07	1.06450E+07	1.07282E+07	0.01557	0.00000E+00	2.45820E+02
29	1.06450E+07	1.04800E+07	1.05622E+07	0.01562	0.00000E+00	2.42880E+02
30	1.04800E+07	1.03170E+07	1.03982E+07	0.01568	0.00000E+00	2.39940E+02
31	1.03170E+07	1.01570E+07	1.02367E+07	0.01563	0.00000E+00	2.35520E+02
32	1.01570E+07	9.99990E+06	1.00781E+07	0.01559	0.00000E+00	2.31250E+02
33	9.99990E+06	9.39400E+06	9.69222E+06	0.06250	0.00000E+00	8.91880E+02
34	9.39400E+06	8.82490E+06	9.10500E+06	0.06249	0.00000E+00	8.37720E+02
35	8.82490E+06	8.29020E+06	8.55337E+06	0.06250	0.00000E+00	7.87080E+02
36	8.29020E+06	7.78790E+06	8.03513E+06	0.06250	0.00000E+00	7.39390E+02
37	7.78790E+06	7.31610E+06	7.54832E+06	0.06249	0.00000E+00	6.94490E+02
38	7.31610E+06	6.87280E+06	7.09099E+06	0.06251	0.00000E+00	6.52540E+02
39	6.87280E+06	6.45640E+06	6.66135E+06	0.06250	0.00000E+00	6.12940E+02
40	6.45640E+06	6.06520E+06	6.25774E+06	0.06250	0.00000E+00	5.75850E+02
41	6.06520E+06	5.69780E+06	5.87863E+06	0.06249	0.00000E+00	5.40810E+02
42	5.69780E+06	5.35250E+06	5.52455E+06	0.06252	0.00000E+00	5.08280E+02
43	5.35250E+06	5.02820E+06	5.18782E+06	0.06250	0.00000E+00	4.77370E+02
44	5.02820E+06	4.72360E+06	4.87352E+06	0.06249	0.00000E+00	4.48370E+02
45	4.72360E+06	4.43740E+06	4.57826E+06	0.06250	0.00000E+00	4.21290E+02
46	4.43740E+06	4.16860E+06	4.30090E+06	0.06249	0.00000E+00	3.95670E+02
47	4.16860E+06	3.91600E+06	4.04033E+06	0.06251	0.00000E+00	3.71830E+02
48	3.91600E+06	3.67870E+06	3.79550E+06	0.06251	0.00000E+00	3.49310E+02
49	3.67870E+06	3.45590E+06	3.56556E+06	0.06248	0.00000E+00	3.27960E+02
50	3.45590E+06	3.24650E+06	3.34956E+06	0.06251	0.00000E+00	3.08240E+02

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* * LIBRARY NAME = J439B.BERMJ3.DATA
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GROUP NO	UPPER ENERGY	LOWER ENERGY	MIDDLE ENERGY	LETHARGY	FISSION SPECTRUM	WEIGHTING FLUX
51	3.24650E+06	3.04980E+06	3.14661E+06	0.06250	0.00000E+00	2.89540E+02
52	3.04980E+06	2.86500E+06	2.95596E+06	0.06251	0.00000E+00	2.72030E+02
53	2.86500E+06	2.69140E+06	2.77684E+06	0.06251	0.00000E+00	2.55540E+02
54	2.69140E+06	2.52840E+06	2.60863E+06	0.06247	0.00000E+00	2.39940E+02
55	2.52840E+06	2.37520E+06	2.45060E+06	0.06250	0.00000E+00	2.25510E+02
56	2.37520E+06	2.23130E+06	2.30135E+06	0.06250	0.00000E+00	2.11820E+02
57	2.23130E+06	2.09610E+06	2.16266E+06	0.06251	0.00000E+00	1.99010E+02
58	2.09610E+06	1.96910E+06	2.03161E+06	0.06250	0.00000E+00	1.86940E+02
59	1.96910E+06	1.84980E+06	1.90852E+06	0.06250	0.00000E+00	1.75610E+02
60	1.84980E+06	1.73770E+06	1.79287E+06	0.06251	0.00000E+00	1.65010E+02
61	1.73770E+06	1.53350E+06	1.63241E+06	0.12501	0.00000E+00	3.00580E+02
62	1.53350E+06	1.35330E+06	1.44059E+06	0.12501	0.00000E+00	2.65250E+02
63	1.35330E+06	1.19430E+06	1.27132E+06	0.12499	0.00000E+00	2.34050E+02
64	1.19430E+06	1.05400E+06	1.12198E+06	0.12497	0.00000E+00	2.06520E+02
65	1.05400E+06	9.30130E+05	9.90130E+05	0.12501	0.00000E+00	1.82340E+02
66	9.30130E+05	8.20840E+05	8.73778E+05	0.12500	0.00000E+00	1.60870E+02
67	8.20840E+05	7.24380E+05	7.71103E+05	0.12501	0.00000E+00	1.41990E+02
68	7.24380E+05	6.39270E+05	6.80496E+05	0.12499	0.00000E+00	1.25280E+02
69	6.39270E+05	5.64150E+05	6.00537E+05	0.12501	0.00000E+00	1.10580E+02
70	5.64150E+05	4.97860E+05	5.29970E+05	0.12500	0.00000E+00	9.75790E+01
71	4.97860E+05	4.39360E+05	4.67966E+05	0.12500	0.00000E+00	8.61120E+01
72	4.39360E+05	3.87740E+05	4.12746E+05	0.12498	0.00000E+00	7.59850E+01
73	3.87740E+05	3.42170E+05	3.62435E+05	0.12503	0.00000E+00	6.70790E+01
74	3.42170E+05	3.01970E+05	3.21422E+05	0.12498	0.00000E+00	5.91740E+01
75	3.01970E+05	2.66490E+05	2.83678E+05	0.12499	0.00000E+00	5.22270E+01
76	2.66490E+05	2.35170E+05	2.50341E+05	0.12503	0.00000E+00	4.61030E+01
77	2.35170E+05	2.07540E+05	2.20923E+05	0.12498	0.00000E+00	4.06710E+01
78	2.07540E+05	1.83150E+05	1.94964E+05	0.12502	0.00000E+00	3.59020E+01
79	1.83150E+05	1.61630E+05	1.72054E+05	0.12500	0.00000E+00	3.16770E+01
80	1.61630E+05	1.42640E+05	1.51838E+05	0.12499	0.00000E+00	2.79530E+01
81	1.42640E+05	1.25880E+05	1.33988E+05	0.12499	0.00000E+00	2.46710E+01
82	1.25880E+05	1.11090E+05	1.18254E+05	0.12499	0.00000E+00	2.17710E+01
83	1.11090E+05	9.80350E+04	1.04359E+05	0.12502	0.00000E+00	1.92170E+01
84	9.80350E+04	8.65150E+04	9.20951E+04	0.12501	0.00000E+00	1.69570E+01
85	8.65150E+04	7.63490E+04	8.12732E+04	0.12500	0.00000E+00	1.49640E+01
86	7.63490E+04	6.73780E+04	7.17234E+04	0.12500	0.00000E+00	1.32050E+01
87	6.73780E+04	5.94610E+04	6.32958E+04	0.12500	0.00000E+00	1.16540E+01
88	5.94610E+04	5.24740E+04	5.58586E+04	0.12500	0.00000E+00	1.02850E+01
89	5.24740E+04	4.63080E+04	4.92947E+04	0.12500	0.00000E+00	9.07640E+00
90	4.63080E+04	4.08670E+04	4.35025E+04	0.12499	0.00000E+00	8.00920E+00
91	4.08670E+04	3.60650E+04	3.83910E+04	0.12500	0.00000E+00	7.06850E+00
92	3.60650E+04	3.18270E+04	3.39866E+04	0.12501	0.00000E+00	6.23830E+00
93	3.18270E+04	2.80870E+04	2.98986E+04	0.12501	0.00000E+00	5.50530E+00
94	2.80870E+04	2.47870E+04	2.63855E+04	0.12499	0.00000E+00	4.85760E+00
95	2.47870E+04	2.18740E+04	2.32850E+04	0.12502	0.00000E+00	4.28790E+00
96	2.18740E+04	1.93040E+04	2.05489E+04	0.12499	0.00000E+00	3.78300E+00
97	1.93040E+04	1.50340E+04	1.70357E+04	0.25000	0.00000E+00	6.28540E+00
98	1.50340E+04	1.17090E+04	1.32677E+04	0.24996	0.00000E+00	4.89440E+00
99	1.17090E+04	9.11860E+03	1.03329E+04	0.25004	0.00000E+00	3.81310E+00
100	9.11860E+03	7.10160E+03	8.04715E+03	0.25000	0.00000E+00	2.96990E+00

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* * LIBRARY NAME = J439B.BERMJ3.DATA
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PART-1 *
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GROUP NO	UPPER ENERGY	LOWER ENERGY	MIDDLE ENERGY	LETHARGY	FISSION SPECTRUM	WEIGHTING FLUX
101	7.10160E+03	5.53070E+03	6.26712E+03	0.25001	0.00000E+00	2.31240E+00
102	5.53070E+03	4.30730E+03	4.88082E+03	0.25000	0.00000E+00	1.80080E+00
103	4.30730E+03	3.35460E+03	3.80122E+03	0.24998	0.00000E+00	1.40240E+00
104	3.35460E+03	2.61250E+03	2.96039E+03	0.25002	0.00000E+00	1.09240E+00
105	2.61250E+03	2.03460E+03	2.30551E+03	0.25001	0.00000E+00	8.50670E-01
106	2.03460E+03	1.58460E+03	1.79556E+03	0.24997	0.00000E+00	6.62400E-01
107	1.58460E+03	1.23410E+03	1.39841E+03	0.24999	0.00000E+00	5.15940E-01
108	1.23410E+03	9.61100E+02	1.08908E+03	0.25002	0.00000E+00	4.01860E-01
109	9.61100E+02	5.82930E+02	7.48501E+02	0.50001	0.00000E+00	5.56670E-01
110	5.82930E+02	3.53570E+02	4.53990E+02	0.49999	0.00000E+00	3.37620E-01
111	3.53570E+02	2.14450E+02	2.75360E+02	0.50000	0.00000E+00	2.04780E-01
112	2.14450E+02	1.30070E+02	1.67014E+02	0.50000	0.00000E+00	1.24210E-01
113	1.30070E+02	7.88910E+01	1.01298E+02	0.50001	0.00000E+00	7.53350E-02
114	7.88910E+01	4.78500E+01	6.14403E+01	0.50000	0.00000E+00	4.56920E-02
115	4.78500E+01	2.90230E+01	3.72659E+01	0.49998	0.00000E+00	2.77130E-02
116	2.90230E+01	1.76030E+01	2.26029E+01	0.50002	0.00000E+00	1.68100E-02
117	1.76030E+01	1.06770E+01	1.37094E+01	0.49998	0.00000E+00	1.01950E-02
118	1.06770E+01	6.47580E+00	8.31517E+00	0.50002	0.00000E+00	6.18420E-03
119	6.47580E+00	3.92780E+00	5.04338E+00	0.49999	0.00000E+00	3.75070E-03
120	3.92780E+00	2.38230E+00	3.05895E+00	0.50001	0.00000E+00	2.27500E-03
121	2.38230E+00	1.44490E+00	1.85531E+00	0.50003	0.00000E+00	1.37990E-03
122	1.44490E+00	8.76400E-01	1.12530E+00	0.49997	0.00000E+00	8.36830E-04
123	8.76400E-01	5.31560E-01	6.82539E-01	0.50001	0.00000E+00	5.07600E-04
124	5.31560E-01	3.22410E-01	4.13981E-01	0.49999	0.00000E+00	3.07870E-04
125	3.22410E-01	1.00100E-05	1.79648E-03	10.37999	0.00000E+00	9.99890E-01

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NO.	CODE	INDXFT	WEIGHT	LEVEL	Q-VALUE
1	11	1	0.9992	1	1.50000E+06
2	21	1	2.9901	1	3.50000E+06
3	36	1	5.9635	31	5.00000E+06
4	37	1	6.9557	29	7.00000E+06
5	40	1	8.9348	5	8.00000E+06
6	50	1	9.9269	33	9.00000E+06
7	60	1	11.8970	20	1.05000E+07
8	70	1	13.8830	34	1.10000E+07
9	80	1	15.8580	30	1.15000E+07

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* << NUCLEIDE INFORMATION >>
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* LIBRARY NAME = J439B.BERMJ3.DATA
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NO.	CODE	INDXFT	WEIGHT	LEVEL	Q-VALUE
10	90	1	18.8350	11	1.10000E+05 1.97200E+05 1.34570E+06 1.45850E+06 1.55410E+06
11	110	1	22.7920	28	2.77980E+06 3.90710E+06 3.99850E+06 4.03250E+06 4.37770E+06
12	120	1	24.0960	41	4.39900E+05 2.07640E+06 2.39090E+06 2.63980E+06 2.70370E+06
13	130	1	26.7500	21	2.98240E+06 3.67830E+06 3.84800E+06 3.91470E+06 4.3200E+06
14	140	1	27.8440	41	4.77560E+06 5.38000E+06 5.53600E+06 5.74100E+06 5.76600E+06
15	150	1	30.7080	7	5.93100E+06 5.96700E+06 6.04300E+06 6.11700E+06 6.19100E+06
16	160	1	31.7890	24	6.23600E+06 6.30800E+06 6.35060E+06 6.57700E+06 6.61700E+06
17	190	1	38.7630	12	6.73400E+06 6.86800E+06 5.84460E+05 9.73740E+05 1.61010E+06
					1.96260E+06 2.56100E+06 2.73470E+06 2.79810E+06 2.93080E+06
					3.40150E+06 3.41000E+06 3.57880E+06 3.90360E+06 3.93040E+06
					3.96640E+06 4.05520E+06 4.12220E+06 4.24070E+06 4.27240E+06
					4.30690E+06 4.32090E+06 4.33880E+06 4.35470E+06 4.70630E+06
					4.71690E+06 4.82160E+06 4.88740E+06 4.95920E+06 5.23890E+06
					5.27740E+06 5.45990E+06 5.67540E+06 6.01350E+06 6.43560E+06
					7.35180E+06 7.55700E+06 7.62030E+06 7.75130E+06 7.81620E+06
					8.43800E+05 1.01400E+06 2.21000E+06 2.73400E+06 2.98140E+06
					3.00400E+06 3.67800E+06 3.95600E+06 4.05400E+06 4.40900E+06
					4.51030E+06 4.58000E+06 4.81200E+06 5.15500E+06 5.24600E+06
					5.41990E+06 5.43280E+06 5.43840E+06 5.49980E+06 5.55070E+06
					1.27300E+06 1.77910E+06 2.23500E+06 2.42500E+06 3.62400E+06
					3.76960E+06 4.61840E+06 4.74100E+06 4.80900E+06 4.89500E+06
					4.97980E+06 5.23000E+06 5.25500E+06 5.37200E+06 5.61300E+06
					5.65200E+06 5.94900E+06 6.19200E+06 6.27730E+06 6.42300E+06
					6.50300E+06 6.52200E+06 6.63400E+06 6.69230E+06 6.69700E+06
					6.71500E+06 6.74470E+06 6.87930E+06 6.88970E+06 6.90700E+06
					6.91400E+06 7.38170E+06 7.41830E+06 7.79990E+06 7.93450E+06
					8.26010E+06 8.32910E+06 8.41440E+06 8.54410E+06 8.59020E+06
					1.26600E+06 2.23400E+06 3.13400E+06 3.29500E+06 3.41500E+06
					3.50600E+06
					8.40000E+05 1.96600E+06 2.12700E+06 2.23000E+06 2.31300E+06
					2.86600E+06 2.93400E+06 2.96900E+06 3.22000E+06 3.29100E+06
					3.30400E+06 3.34600E+06 3.77900E+06 3.91400E+06 4.07200E+06
					4.11500E+06 4.19200E+06 4.28000E+06 4.45900E+06 4.52300E+06
					4.57500E+06 4.69500E+06 5.00600E+06
					3.00000E+04 8.00000E+05 8.92000E+05 9.80000E+05 1.29400E+06
					1.64400E+06 1.95900E+06 2.52300E+06 2.81400E+06 3.01900E+06
					3.59800E+06

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NO.	CODE	INDXFT	WEIGHT	LEVEL	Q-VALUE
18	200	1	39.7320	35	3.72800E+05 5.93400E+05 9.90300E+05 1.15700E+06 1.34600E+06 1.52460E+06 1.67780E+06 1.83730E+06 1.90180E+06 1.93140E+06 2.28310E+06 2.42310E+06 2.57470E+06 2.65650E+06 2.75230E+06 2.97390E+06 3.02260E+06 3.18930E+06 3.25390E+06 3.30000E+06 3.35210E+06 3.39100E+06 3.61400E+06 3.73690E+06 3.83170E+06 3.90450E+06 4.28420E+06 4.49150E+06 5.21290E+06 5.24880E+06 5.27880E+06 5.61420E+06 5.62960E+06 5.90330E+06 3.20100E+05 9.28700E+05 1.60890E+06 1.81310E+06 2.41080E+06 2.54740E+06 2.67740E+06 2.69960E+06 2.79000E+06 3.08360E+06 3.15000E+06 3.19510E+06 3.21480E+06 3.26400E+06 3.28000E+06 5.63810E+05 7.83880E+05 8.34300E+05 1.00600E+06 1.28910E+06 1.43400E+06 1.53610E+06 1.82240E+06 1.88280E+06 1.97280E+06 2.17170E+06 2.23220E+06 2.32000E+06 2.36950E+06 2.45230E+06 2.61770E+06 2.64710E+06 2.66860E+06 2.76780E+06 2.77110E+06 2.82560E+06 2.82740E+06 2.92670E+06 2.96480E+06 2.99200E+06 3.07170E+06 3.11380E+06 3.15770E+06 3.16110E+06 3.16170E+06 3.32730E+06 3.41530E+06 3.47230E+06 3.61590E+06 3.70010E+06 3.77180E+06 3.94610E+06 4.01550E+06 4.56300E+06 4.62710E+06 1.26000E+05 9.84000E+05 1.29000E+06 1.29200E+06 1.29300E+06 1.52800E+06 1.88400E+06 2.01500E+06 2.19800E+06 2.21500E+06 2.25200E+06 2.26700E+06 2.31200E+06 2.36600E+06 2.39800E+06 2.42700E+06
19	230	1	50.5060	16	1.43950E+04 1.36450E+05 3.66680E+05 7.06160E+05 8.46780E+05 1.00690E+06 1.26500E+06 1.40910E+06 1.62680E+06 1.98860E+06 2.08500E+06 2.11730E+06 2.21820E+06 2.45520E+06 2.59870E+06 2.65750E+06 2.69650E+06 2.94160E+06 2.95180E+06 2.95990E+06 3.11990E+06 3.13100E+06 3.23090E+06 3.37010E+06 3.44530E+06 3.6080E+06 3.74790E+06 3.83190E+06 3.85640E+06 4.03550E+06 4.09390E+06 4.10020E+06 4.11990E+06 4.29810E+06 4.39490E+06 4.40090E+06 4.45830E+06 4.50990E+06 4.60090E+06 4.78300E+06 1.09930E+06 1.19050E+06 1.29200E+06 1.43430E+06 1.45950E+06 1.48200E+06 1.74500E+06 2.06300E+06 2.08800E+06 2.14600E+06 2.15330E+06 2.18300E+06 2.20500E+06 2.39710E+06 2.47900E+06 2.53700E+06 2.54050E+06 2.58160E+06 2.58400E+06 4.00000E+06 6.73580E+04 2.82820E+05 6.55590E+05 9.08230E+05 1.01440E+06 1.33200E+06 1.34400E+06 1.45480E+06 1.45710E+06 1.72870E+06 1.97680E+06 2.00180E+06 2.15800E+06 2.27190E+06 2.28410E+06 2.29980E+06 2.45960E+06 2.50490E+06 2.62510E+06 2.77610E+06 2.86100E+06 2.90240E+06 2.96690E+06 3.03830E+06 3.11870E+06 3.15520E+06 3.18500E+06 3.25480E+06 3.26410E+06 3.26700E+06 3.42110E+06 3.45420E+06 3.52480E+06 3.59420E+06 3.64200E+06 3.77520E+06 3.80270E+06 3.89920E+06 4.03830E+06 4.47630E+06
20	240	1	51.5490	41	
21	250	1	54.4660	17	
22	260	1	55.3670	41	
23	270	1	58.4270	21	
24	280	1	58.1840	41	

TO BE CONTINUED

* HEADER PRINT ***** PART-2 *
* << NUCLEIDE INFORMATION >> *
* *
* LIBRARY NAME = J439B.BERMJ3.DATA *

Table with columns: NO., CODE, INDXFT, WEIGHT, LEVEL, Q-VALUE. Rows include data for codes 290, 410, 420, 730, 740, 820 with various associated values and exponents.

```
*****  
* HEADER PRINT  
* << F-TABLE PARAMETER >> PART-3 *  
*  
* LIBRARY NAME = J439B.BERNJ3.DATA *  
*****
```

```
NS0(SIGMA0) = 9  
1 0.00000E+00  
2 1.77830E-01  
3 1.00000E+00  
4 1.00000E+01  
5 1.00000E+02  
6 1.00000E+03  
7 1.00000E+04  
8 1.00000E+05  
9 1.00000E+06
```

```
NTP(TEMP.) = 4  
1 3.00000E+02  
2 6.00000E+02  
3 9.00000E+02  
4 2.10000E+03
```

 * * << INFINITE MICRO SCOPIC CROSS SECTION TABLE >> * *
 * * * * *
 * LIBRARY NAME = J4398.BERMJ3.DATA * *
 * CODE NUMBER = 36 * *

GRP.	TOTAL	NUFISSION	FISSION	CAPTURE	WEIGHT
1	1.31612E+00	0.0000E+00	0.0000E+00	2.79424E-02	3.76830E+02
2	1.32787E+00	0.0000E+00	0.0000E+00	2.88656E-02	3.69470E+02
3	1.33943E+00	0.0000E+00	0.0000E+00	2.97512E-02	3.65060E+02
4	1.35097E+00	0.0000E+00	0.0000E+00	3.04613E-02	3.59170E+02
5	1.36254E+00	0.0000E+00	0.0000E+00	3.11309E-02	3.53280E+02
6	1.37397E+00	0.0000E+00	0.0000E+00	3.17845E-02	3.47390E+02
7	1.38499E+00	0.0000E+00	0.0000E+00	3.24227E-02	3.42980E+02
8	1.39592E+00	0.0000E+00	0.0000E+00	3.30505E-02	3.37090E+02
9	1.40675E+00	0.0000E+00	0.0000E+00	3.36689E-02	3.32670E+02
10	1.41878E+00	0.0000E+00	0.0000E+00	3.42782E-02	3.26780E+02
11	1.43160E+00	0.0000E+00	0.0000E+00	3.49167E-02	3.22370E+02
12	1.44495E+00	0.0000E+00	0.0000E+00	3.55843E-02	3.16480E+02
13	1.45839E+00	0.0000E+00	0.0000E+00	3.62174E-02	3.12060E+02
14	1.47158E+00	0.0000E+00	0.0000E+00	3.67768E-02	3.06180E+02
15	1.48463E+00	0.0000E+00	0.0000E+00	3.73241E-02	3.03230E+02
16	1.49773E+00	0.0000E+00	0.0000E+00	3.78642E-02	2.97340E+02
17	1.51124E+00	0.0000E+00	0.0000E+00	3.84164E-02	2.92930E+02
18	1.52455E+00	0.0000E+00	0.0000E+00	3.90043E-02	2.88510E+02
19	1.53791E+00	0.0000E+00	0.0000E+00	3.95845E-02	2.84100E+02
20	1.55068E+00	0.0000E+00	0.0000E+00	4.01564E-02	2.79680E+02
21	1.56296E+00	0.0000E+00	0.0000E+00	4.07191E-02	2.75260E+02
22	1.57532E+00	0.0000E+00	0.0000E+00	4.12727E-02	2.70850E+02
23	1.58745E+00	0.0000E+00	0.0000E+00	4.18171E-02	2.66430E+02
24	1.59961E+00	0.0000E+00	0.0000E+00	4.23567E-02	2.63490E+02
25	1.61148E+00	0.0000E+00	0.0000E+00	4.29402E-02	2.57600E+02
26	1.62325E+00	0.0000E+00	0.0000E+00	4.35385E-02	2.54660E+02
27	1.63537E+00	0.0000E+00	0.0000E+00	4.41373E-02	2.51710E+02
28	1.64685E+00	0.0000E+00	0.0000E+00	4.4777E-02	2.45820E+02
29	1.65784E+00	0.0000E+00	0.0000E+00	4.53932E-02	2.42880E+02
30	1.66957E+00	0.0000E+00	0.0000E+00	4.60129E-02	2.39940E+02
31	1.68153E+00	0.0000E+00	0.0000E+00	4.66216E-02	2.35520E+02
32	1.69306E+00	0.0000E+00	0.0000E+00	4.72193E-02	2.31250E+02
33	1.72173E+00	0.0000E+00	0.0000E+00	4.86685E-02	8.91880E+02
34	1.76671E+00	0.0000E+00	0.0000E+00	5.11053E-02	8.37720E+02
35	1.80907E+00	0.0000E+00	0.0000E+00	5.46841E-02	7.87080E+02
36	1.84859E+00	0.0000E+00	0.0000E+00	5.93050E-02	7.39390E+02
37	1.88833E+00	0.0000E+00	0.0000E+00	6.45409E-02	6.94490E+02
38	1.92786E+00	0.0000E+00	0.0000E+00	7.03567E-02	6.52540E+02
39	1.96706E+00	0.0000E+00	0.0000E+00	7.63146E-02	6.12940E+02
40	2.00565E+00	0.0000E+00	0.0000E+00	8.2595E-02	5.75850E+02
41	2.03979E+00	0.0000E+00	0.0000E+00	8.88056E-02	5.40810E+02
42	2.06749E+00	0.0000E+00	0.0000E+00	9.67601E-02	5.08280E+02
43	2.08875E+00	0.0000E+00	0.0000E+00	1.07591E-01	4.77370E+02
44	2.10478E+00	0.0000E+00	0.0000E+00	1.16561E-01	4.48370E+02
45	2.11433E+00	0.0000E+00	0.0000E+00	1.23125E-01	4.21290E+02
46	2.12615E+00	0.0000E+00	0.0000E+00	1.36247E-01	3.95670E+02
47	2.13165E+00	0.0000E+00	0.0000E+00	1.39674E-01	3.71830E+02
48	2.14356E+00	0.0000E+00	0.0000E+00	1.36677E-01	3.49310E+02
49	2.06085E+00	0.0000E+00	0.0000E+00	1.33435E-01	3.27960E+02
50	2.01273E+00	0.0000E+00	0.0000E+00	1.32031E-01	3.08240E+02

TO BE CONTINUED

 * << INFINITE MICRO SCOPIC CROSS SECTION TABLE >> *
 * * * * *
 * LIBRARY NAME = J439B.BERMJ3.DATA *
 * CODE NUMBER = 36 *

GRP.	TOTAL	NUFISSION	FISSION	CAPTURE	WEIGHT
51	1.94346E+00	0.0000E+00	0.0000E+00	1.36778E-01	2.89540E+02
52	1.84433E+00	0.0000E+00	0.0000E+00	1.48745E-01	2.72030E+02
53	1.75071E+00	0.0000E+00	0.0000E+00	1.62593E-01	2.55540E+02
54	1.65426E+00	0.0000E+00	0.0000E+00	1.75882E-01	2.39940E+02
55	1.58789E+00	0.0000E+00	0.0000E+00	1.88610E-01	2.25510E+02
56	1.51933E+00	0.0000E+00	0.0000E+00	2.00608E-01	2.11820E+02
57	1.45870E+00	0.0000E+00	0.0000E+00	2.06917E-01	1.99010E+02
58	1.40405E+00	0.0000E+00	0.0000E+00	2.08206E-01	1.86940E+02
59	1.35906E+00	0.0000E+00	0.0000E+00	2.09415E-01	1.75610E+02
60	1.32040E+00	0.0000E+00	0.0000E+00	2.11834E-01	1.65010E+02
61	1.28390E+00	0.0000E+00	0.0000E+00	2.24003E-01	3.00580E+02
62	1.26143E+00	0.0000E+00	0.0000E+00	2.38731E-01	2.65250E+02
63	1.25652E+00	0.0000E+00	0.0000E+00	2.51019E-01	2.34050E+02
64	1.27339E+00	0.0000E+00	0.0000E+00	2.62088E-01	2.06520E+02
65	1.33146E+00	0.0000E+00	0.0000E+00	2.72857E-01	1.82340E+02
66	1.38412E+00	0.0000E+00	0.0000E+00	2.84817E-01	1.60870E+02
67	1.44401E+00	0.0000E+00	0.0000E+00	2.99407E-01	1.41990E+02
68	1.52733E+00	0.0000E+00	0.0000E+00	3.18427E-01	1.25280E+02
69	1.64409E+00	0.0000E+00	0.0000E+00	3.44687E-01	1.10380E+02
70	1.81127E+00	0.0000E+00	0.0000E+00	3.82667E-01	9.75790E+01
71	2.06052E+00	0.0000E+00	0.0000E+00	4.40918E-01	8.61120E+01
72	2.46475E+00	0.0000E+00	0.0000E+00	5.38648E-01	7.59850E+01
73	3.18418E+00	0.0000E+00	0.0000E+00	7.20478E-01	6.70790E+01
74	4.59152E+00	0.0000E+00	0.0000E+00	1.09962E+00	5.91740E+01
75	7.43522E+00	0.0000E+00	0.0000E+00	1.93562E+00	5.22270E+01
76	1.07312E+01	0.0000E+00	0.0000E+00	3.11722E+00	4.61030E+01
77	8.96742E+00	0.0000E+00	0.0000E+00	2.90742E+00	4.06710E+01
78	5.19242E+00	0.0000E+00	0.0000E+00	1.86432E+00	3.59020E+01
79	3.14642E+00	0.0000E+00	0.0000E+00	1.22752E+00	3.16770E+01
80	2.23513E+00	0.0000E+00	0.0000E+00	9.22429E-01	2.79330E+01
81	1.79575E+00	0.0000E+00	0.0000E+00	7.66149E-01	2.46710E+01
82	1.60342E+00	0.0000E+00	0.0000E+00	7.00929E-01	2.17710E+01
83	1.50009E+00	0.0000E+00	0.0000E+00	6.68779E-01	1.92170E+01
84	1.44985E+00	0.0000E+00	0.0000E+00	6.58720E-01	1.69570E+01
85	1.42883E+00	0.0000E+00	0.0000E+00	6.61851E-01	1.49640E+01
86	1.42630E+00	0.0000E+00	0.0000E+00	6.74233E-01	1.32050E+01
87	1.43658E+00	0.0000E+00	0.0000E+00	6.93774E-01	1.16540E+01
88	1.45575E+00	0.0000E+00	0.0000E+00	7.18726E-01	1.02850E+01
89	1.48202E+00	0.0000E+00	0.0000E+00	7.48658E-01	9.07640E+00
90	1.51513E+00	0.0000E+00	0.0000E+00	7.83549E-01	8.00920E+00
91	1.55200E+00	0.0000E+00	0.0000E+00	8.21861E-01	7.06850E+00
92	1.59419E+00	0.0000E+00	0.0000E+00	8.64783E-01	6.23830E+00
93	1.63978E+00	0.0000E+00	0.0000E+00	9.10485E-01	5.50330E+00
94	1.69096E+00	0.0000E+00	0.0000E+00	9.61778E-01	4.85760E+00
95	1.74553E+00	0.0000E+00	0.0000E+00	1.01644E+00	4.28790E+00
96	1.80395E+00	0.0000E+00	0.0000E+00	1.07474E+00	3.78300E+00
97	1.90376E+00	0.0000E+00	0.0000E+00	1.17375E+00	6.28540E+00
98	2.05226E+00	0.0000E+00	0.0000E+00	1.32135E+00	4.89440E+00
99	2.21967E+00	0.0000E+00	0.0000E+00	1.48806E+00	3.81310E+00
100	2.41112E+00	0.0000E+00	0.0000E+00	1.67897E+00	2.96900E+00

TO BE CONTINUED

 * << INFINITE MICRO SCOPIC CROSS SECTION TABLE >> *
 * * * * *
 * LIBRARY NAME = J439B.BERMJ3.DATA *
 * CODE NUMBER = 36 *

GRP.	TOTAL	NUFISSION	FISSION	CAPTURE	WEIGHT
101	2.63045E+00	0.00000E+00	0.00000E+00	1.89788E+00	2.31240E+00
102	2.87969E+00	0.00000E+00	0.00000E+00	2.14679E+00	1.80080E+00
103	3.16236E+00	0.00000E+00	0.00000E+00	2.42920E+00	1.40240E+00
104	3.48377E+00	0.00000E+00	0.00000E+00	2.75041E+00	1.09240E+00
105	3.84882E+00	0.00000E+00	0.00000E+00	3.11513E+00	8.50670E-01
106	4.26254E+00	0.00000E+00	0.00000E+00	3.52844E+00	6.62400E-01
107	4.73218E+00	0.00000E+00	0.00000E+00	3.99776E+00	5.15940E-01
108	5.26387E+00	0.00000E+00	0.00000E+00	4.52919E+00	4.01860E-01
109	6.20927E+00	0.00000E+00	0.00000E+00	5.47432E+00	5.56670E-01
110	7.76538E+00	0.00000E+00	0.00000E+00	7.03019E+00	3.37620E-01
111	9.76490E+00	0.00000E+00	0.00000E+00	9.02957E+00	2.04780E-01
112	1.23299E+01	0.00000E+00	0.00000E+00	1.15945E+01	1.24210E-01
113	1.56271E+01	0.00000E+00	0.00000E+00	1.48916E+01	7.53350E-02
114	1.98633E+01	0.00000E+00	0.00000E+00	1.91278E+01	4.56920E-02
115	2.52965E+01	0.00000E+00	0.00000E+00	2.45610E+01	2.77130E-02
116	3.22838E+01	0.00000E+00	0.00000E+00	3.15483E+01	1.68100E-02
117	4.12402E+01	0.00000E+00	0.00000E+00	4.05047E+01	1.01950E-02
118	5.27667E+01	0.00000E+00	0.00000E+00	5.20311E+01	6.18420E-03
119	6.75413E+01	0.00000E+00	0.00000E+00	6.68057E+01	3.75070E-03
120	8.65231E+01	0.00000E+00	0.00000E+00	8.57875E+01	2.27500E-03
121	1.10890E+02	0.00000E+00	0.00000E+00	1.10154E+02	1.37990E-03
122	1.42182E+02	0.00000E+00	0.00000E+00	1.41446E+02	8.36830E-04
123	1.82385E+02	0.00000E+00	0.00000E+00	1.81647E+02	5.07600E-04
124	2.33959E+02	0.00000E+00	0.00000E+00	2.33220E+02	3.07870E-04
125	8.34670E+02	0.00000E+00	0.00000E+00	8.33874E+02	9.99890E-01

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 * << MICRO SCOPIC TRANSFER MATRICIES TABLE >>
 *
 * LIBRARY NAME = J439B.BERMJ3.DATA
 * CODE NUMBER = 36

PAGE 1 OF 20

GROUP I	EXIT J=	GROUP	** KK **	KK = I + J - 1	5	6	7	8	9	10
1	1	2	3	4	15	16	17	18	19	20
	11	12	13	14	25	26	27	28	29	30
	21	22	23	24	35	36	37	38	39	40
	31	32	33	34	45	46	47	48	49	50
	41	42	43	44	55	56	57	58	59	60
	51	52	53	54	65	66	67	68	69	70
	61	62	63	64	75	76	77	78	79	80
	71	72	73	74	85	86	87	88	89	90
	81	82	83	84	95	96	97	98	99	100
	91	92	93	94	105	106	107	108	109	110
	101	102	103	104	115	116	117	118	119	120
	111	112	113	114	125					
	121	122	123	124						
1	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.1423E-10	6.5275E-08	1.9258E-07	2.5196E-07
	3.0526E-07	3.6845E-07	2.3891E-06	4.7848E-06	9.1235E-06	1.6604E-05	2.8921E-05	4.8364E-05	7.7794E-05	1.2070E-04
	1.8092E-04	2.6290E-04	3.7095E-04	5.0836E-04	6.7803E-04	8.8184E-04	1.1210E-03	1.3932E-03	1.6951E-03	2.0231E-03
	2.3740E-03	2.7356E-03	3.1017E-03	3.4622E-03	3.8135E-03	4.1417E-03	4.4282E-03	4.7096E-03	4.9386E-03	5.1236E-03
	1.0624E-02	1.0823E-02	1.0670E-02	1.0238E-02	9.5927E-03	8.7881E-03	7.9173E-03	6.9990E-03	6.0977E-03	5.2604E-03
	4.4506E-03	3.7463E-03	3.1183E-03	2.5857E-03	2.1237E-03	1.7336E-03	1.4060E-03	1.1354E-03	9.1353E-04	7.3076E-04
	5.8395E-04	4.6570E-04	3.6992E-04	2.9293E-04	2.3174E-04	1.8272E-04	1.4415E-04	1.1329E-04	8.9006E-05	6.9989E-05
	5.4852E-05	4.2906E-05	3.3576E-05	2.6287E-05	2.0604E-05	1.6136E-05	1.2432E-05	9.3673E-06	6.9384E-06	5.0736E-06
	3.0856E-06	1.8760E-06	1.1379E-06	6.9030E-07	4.1864E-07	2.5389E-07	1.5401E-07	9.3422E-08	5.1024E-08	3.3484E-08
	1.2319E-08	4.5317E-09	1.6671E-09	6.1329E-10	2.2561E-10	8.3005E-11	3.0533E-11	1.1234E-11	4.1323E-12	1.5203E-12
	5.5926E-13	2.0572E-13	7.5687E-14	2.7843E-14	1.6204E-14					
2	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	1.8765E-08	1.5751E-07	2.7711E-07
	3.3505E-07	2.1825E-06	4.3992E-06	8.4386E-06	1.5445E-05	2.7045E-05	4.5453E-05	7.3457E-05	1.1447E-04	1.7242E-04
	2.5183E-04	3.5616E-04	4.8943E-04	6.5505E-04	8.5435E-04	1.0891E-03	1.3574E-03	1.6560E-03	1.9821E-03	2.3290E-03
	2.6900E-03	3.0560E-03	3.4172E-03	3.7702E-03	4.1016E-03	4.4075E-03	4.6797E-03	4.9115E-03	5.1021E-03	5.0597E-02
	1.0820E-02	1.0689E-02	1.0274E-02	9.6404E-03	8.8360E-03	7.9752E-03	7.0569E-03	6.1529E-03	5.2914E-03	4.5000E-03
	3.7885E-03	3.1542E-03	2.6165E-03	2.1506E-03	1.7561E-03	1.4243E-03	1.1514E-03	9.2587E-04	7.4147E-04	5.9198E-04
	4.7246E-04	3.7538E-04	2.9725E-04	2.3521E-04	1.8546E-04	1.4631E-04	1.1505E-04	9.0357E-05	7.1033E-05	5.5727E-05
	4.3582E-05	3.4099E-05	2.6691E-05	2.0915E-05	1.6384E-05	1.2786E-05	9.3886E-06	8.4737E-06	5.1534E-06	3.1339E-06
	1.9056E-06	1.1560E-06	7.0126E-07	4.2529E-07	2.5792E-07	1.5646E-07	9.4906E-08	9.2470E-08	3.4016E-08	1.2514E-08
	4.6037E-09	1.6936E-09	6.2303E-10	2.2920E-10	8.4323E-11	3.1018E-11	1.1412E-11	4.1980E-12	1.5444E-12	5.6815E-13
	2.0899E-13	7.6889E-14	2.8285E-14	1.6462E-14	0.0000E+00					

TO BE CONTINUED

 * << MICRO SCOPIC TRANSFER MATRICES TABLE >>
 *
 * LIBRARY NAME = J439B.BERMJ3.DATA
 * CODE NUMBER = 36

PAGE 2 OF 20

GROUP I	EXIT J=	GROUP	** KK **	KK = I + J - 1	5	6	7	8	9	10
	1	2	3	4	15	16	17	18	19	20
	11	12	13	14	22	23	24	25	26	27
	21	22	23	24	31	32	33	34	35	36
	31	32	33	34	41	42	43	44	45	46
	41	42	43	44	51	52	53	54	55	56
	51	52	53	54	61	62	63	64	65	66
	61	62	63	64	71	72	73	74	75	76
	71	72	73	74	81	82	83	84	85	86
	81	82	83	84	91	92	93	94	95	96
	91	92	93	94	101	102	103	104	105	106
	101	102	103	104	111	112	113	114	115	116
	111	112	113	114	121	122	123	124	125	126
	121	122	123	124						

3	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
	1.98861E-06	4.03423E-06	7.78555E-06	1.43311E-05	2.52292E-05	4.26153E-05	6.92155E-05	1.08491E-04	1.64101E-04	2.40272E-04
	3.40972E-04	4.70153E-04	6.31264E-04	8.26105E-04	1.05581E-03	1.31981E-03	1.61351E-03	1.93721E-03	2.28072E-03	2.63912E-03
	3.00422E-03	3.36592E-03	3.72052E-03	4.05462E-03	4.36353E-03	4.63803E-03	4.87553E-03	5.08083E-03	5.2591E-02	1.07941E-02
	1.06871E-02	1.02891E-02	9.66786E-03	8.87015E-03	8.01565E-03	7.10154E-03	6.19694E-03	5.33483E-03	4.54053E-03	3.82293E-03
	3.18592E-03	2.64222E-03	2.17361E-03	1.77541E-03	1.44071E-03	1.16521E-03	9.36566E-04	7.50985E-04	5.99134E-04	4.78333E-04
	3.80112E-04	3.01122E-04	2.38252E-04	1.87921E-04	1.48191E-04	1.16621E-04	9.15656E-05	7.19575E-05	5.65014E-05	4.41873E-05
	3.45662E-05	2.70512E-05	2.11931E-05	1.66031E-05	1.31021E-05	1.0761E-05	8.58936E-06	5.22493E-06	3.17702E-06	1.93201E-06
	1.17221E-06	7.11075E-07	4.31243E-07	2.61532E-07	1.58651E-07	9.62346E-08	5.37646E-08	3.44922E-08	1.26901E-08	4.66813E-09
	1.17131E-09	6.31754E-10	2.32402E-10	8.55036E-11	3.14522E-11	1.15721E-11	4.25673E-12	1.56601E-12	5.76104E-13	2.11911E-13
	7.79655E-14	2.86812E-14	1.66921E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
4	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
	3.69135E-06	7.16770E-06	1.32692E-05	2.34953E-05	3.99325E-05	6.52119E-05	1.02541E-04	1.55622E-04	2.28773E-04	3.25864E-04
	4.50896E-04	6.07358E-04	7.97160E-04	1.02221E-03	1.28062E-03	1.57062E-03	1.88893E-03	2.22963E-03	2.58613E-03	2.94964E-03
	3.31064E-03	3.66565E-03	4.00105E-03	4.31225E-03	4.59086E-03	4.83336E-03	5.04667E-03	5.21521E-02	1.07531E-02	1.06701E-02
	1.02901E-02	9.68063E-03	8.89752E-03	8.04221E-03	7.13669E-03	6.23998E-03	5.37167E-03	4.57466E-03	3.85185E-03	3.21534E-03
	2.66444E-03	2.19413E-03	1.79262E-03	1.45572E-03	1.17752E-03	9.46403E-04	7.59510E-04	6.05748E-04	4.83586E-04	3.84415E-04
	3.04694E-04	2.41013E-04	1.90193E-04	1.49022E-04	1.18072E-04	9.26842E-05	7.28110E-05	5.72038E-05	4.47486E-05	3.49995E-05
	2.73844E-05	2.14493E-05	1.68022E-05	1.33953E-05	1.04252E-05	8.69582E-06	5.29097E-06	3.21694E-06	1.95633E-06	1.18712E-06
	7.20160E-07	4.36756E-07	2.64864E-07	1.60672E-07	9.74633E-08	5.49613E-08	3.49325E-08	1.28512E-08	4.72776E-09	1.75922E-09
	6.39818E-10	2.35373E-10	8.65951E-11	3.18544E-11	1.17192E-11	4.31106E-12	1.58603E-12	5.83458E-13	2.14613E-13	7.89610E-14
	2.90474E-14	1.69052E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00

TO BE CONTINUED

* << MICRO SCOPIC TRANSFER MATRICES TABLE >>
*
* LIBRARY NAME = J439B-BERMJ3.DATA
* CODE NUMBER = 36

GROUP I	EXIT J=	GROUP	** KK **	KK = I + J - 1	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
	21	22	23	24	25	26	27	28	29	30
	31	32	33	34	35	36	37	38	39	40
	41	42	43	44	45	46	47	48	49	50
	51	52	53	54	55	56	57	58	59	60
	61	62	63	64	65	66	67	68	69	70
	71	72	73	74	75	76	77	78	79	80
	81	82	83	84	85	86	87	88	89	90
	91	92	93	94	95	96	97	98	99	100
	101	102	103	104	105	106	107	108	109	110
	111	112	113	114	115	116	117	118	119	120
	121	122	123	124	125					

5	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
	0.0000E+06	1.2302E-05	2.1908E-05	3.7385E-05	6.1289E-05	9.6796E-05	1.4754E-04	2.1775E-04	3.1131E-04	4.3230E-04
	5.8430E-04	7.6923E-04	9.8908E-04	1.2431E-03	1.5276E-03	1.8428E-03	2.1796E-03	2.5328E-03	2.8950E-03	3.2558E-03
	3.6114E-03	3.9485E-03	4.2627E-03	4.5454E-03	4.7913E-03	5.0012E-03	1.0457E-02	1.0713E-02	1.0652E-02	1.0291E-02
	9.6947E-03	8.9281E-03	8.0727E-03	7.1729E-03	6.2717E-03	5.4087E-03	4.6087E-03	3.8818E-03	3.2456E-03	2.6867E-03
	2.2151E-03	1.8106E-03	1.4711E-03	1.1898E-03	9.5673E-04	7.6802E-04	6.1266E-04	4.8889E-04	3.8886E-04	3.0833E-04
	2.4382E-04	1.9253E-04	1.5170E-04	1.1953E-04	9.3836E-05	7.3690E-05	5.7910E-05	4.5325E-05	3.5444E-05	2.7727E-05
	2.1713E-05	1.7003E-05	2.3695E-05	1.6423E-05	8.8047E-06	5.3580E-06	3.2577E-06	1.9812E-06	1.2024E-06	7.2945E-07
	4.4238E-07	2.6828E-07	1.6274E-07	9.8721E-08	9.6187E-08	3.5383E-08	1.3017E-08	4.7887E-09	1.7617E-09	6.4808E-10
	2.3841E-10	8.7713E-11	3.2265E-11	1.1871E-11	4.3667E-12	1.6065E-12	5.9099E-13	2.1739E-13	7.9980E-14	2.9421E-14
	1.7123E-14	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
6	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
	1.1386E-05	2.0372E-05	3.4942E-05	5.7561E-05	9.1323E-05	1.3979E-04	2.0714E-04	2.9727E-04	4.1427E-04	5.6178E-04
	7.4200E-04	9.5686E-04	1.2056E-03	1.4861E-03	1.7963E-03	2.1298E-03	2.4811E-03	2.8412E-03	3.2009E-03	3.5570E-03
	3.8958E-03	4.2124E-03	4.4978E-03	4.7473E-03	4.9594E-03	5.1040E-03	1.0686E-02	1.0633E-02	1.0290E-02	9.7101E-03
	8.9559E-03	8.0991E-03	7.2085E-03	6.3085E-03	5.4446E-03	4.6416E-03	3.9134E-03	3.2747E-03	2.7091E-03	2.2359E-03
	1.8287E-03	1.4862E-03	1.2020E-03	9.6729E-04	7.7634E-04	6.1968E-04	4.9415E-04	3.9327E-04	3.1166E-04	2.4652E-04
	1.9486E-04	1.5350E-04	1.2098E-04	9.4998E-05	7.4578E-05	5.8608E-05	4.5905E-05	3.5892E-05	2.8072E-05	2.1978E-05
	1.7209E-05	2.3994E-05	1.4614E-05	8.9137E-06	5.4267E-06	3.2988E-06	2.0621E-06	1.2178E-06	7.3878E-07	4.4805E-07
	2.7172E-07	1.6483E-07	9.9983E-08	9.7417E-08	3.5836E-08	1.3184E-08	4.8500E-09	1.7842E-09	6.5636E-10	2.4146E-10
	8.8835E-11	3.2678E-11	1.2023E-11	4.4226E-12	1.6270E-12	5.9854E-13	2.2017E-13	8.1003E-14	2.9798E-14	1.7342E-14
	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00

TO BE CONTINUED

 * * << MICRO SCOPIC TRANSFER MATRICIES TABLE >>
 * *
 * * LIBRARY NAME = J439B.BERMJ3.DATA
 * * CODE NUMBER = 36

 PAGE 4 OF 20

GROUP I	EXIT J=	GROUP	** KK **	KK = I + J - 1	5	6	7	8	9	10
1	1	2	3	4	15	16	17	18	19	20
11	12	13	14	15	26	27	28	29	30	31
21	22	23	24	25	36	37	38	39	40	41
31	32	33	34	35	46	47	48	49	50	51
41	42	43	44	45	56	57	58	59	60	61
51	52	53	54	55	66	67	68	69	70	71
61	62	63	64	65	76	77	78	79	80	81
71	72	73	74	75	86	87	88	89	90	91
81	82	83	84	85	96	97	98	99	100	101
91	92	93	94	95	106	107	108	109	110	111
101	102	103	104	105	116	117	118	119	120	121
111	112	113	114	115						
121	122	123	124	125						

7	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
7	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
7	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
7	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
7	1.89280E-05	3.26340E-05	5.40200E-05	8.60990E-05	1.32370E-04	1.96930E-04	2.83700E-04	3.96770E-04	5.39860E-04	7.15280E-04
7	9.25270E-04	1.16910E-03	1.44450E-03	1.75080E-03	2.08060E-03	2.42820E-03	2.78690E-03	3.14630E-03	3.50250E-03	3.84230E-03
7	4.16100E-03	4.44970E-03	4.70370E-03	4.92010E-03	5.03410E-03	5.06710E-03	5.06190E-03	5.02870E-03	4.97240E-03	4.898050E-03
7	8.12390E-03	7.24380E-03	6.34470E-03	5.47980E-03	4.67440E-03	3.94610E-03	3.30260E-03	2.73260E-03	2.25630E-03	1.84660E-03
7	1.50110E-03	1.21420E-03	9.78020E-04	7.84520E-04	6.26870E-04	4.99440E-04	3.97520E-04	3.14280E-04	2.48830E-04	1.97120E-04
7	1.53330E-04	1.22410E-04	9.61740E-05	7.54770E-05	5.93000E-05	4.64910E-05	3.63440E-05	2.84210E-05	2.22470E-05	1.74150E-05
7	2.42920E-05	1.67970E-05	9.02350E-06	5.49520E-06	3.34020E-06	2.03120E-06	1.23330E-06	7.48180E-07	4.53740E-07	2.75170E-07
7	1.65920E-07	1.01250E-07	9.86560E-08	3.62910E-08	1.33520E-08	4.91170E-09	1.80690E-09	6.64710E-10	2.44530E-10	8.99650E-11
7	3.30930E-11	1.21750E-11	4.47880E-12	1.64770E-12	6.06160E-13	2.22970E-13	8.20330E-14	3.01770E-14	1.75630E-14	0.00000E+00
7	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
7	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
7	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
7	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
7	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
7	3.04714E-05	5.04896E-05	8.11660E-05	1.25332E-04	1.87222E-04	2.70753E-04	3.80025E-04	5.18836E-04	6.89588E-04	8.94671E-04
7	1.13381E-03	1.40452E-03	1.70652E-03	2.03243E-03	2.37823E-03	2.73443E-03	3.09254E-03	3.44914E-03	3.79055E-03	4.11185E-03
7	4.40415E-03	4.66206E-03	4.88176E-03	5.06251E-03	5.20623E-03	5.3124E-03	5.38025E-03	5.42365E-03	5.45136E-03	5.4672E-03
7	7.27989E-03	6.38378E-03	5.51767E-03	4.71126E-03	3.98025E-03	3.33124E-03	2.75873E-03	2.27733E-03	1.86542E-03	1.51672E-03
7	1.23902E-03	9.89152E-04	7.93080E-04	6.34498E-04	5.05136E-04	4.02365E-04	3.18184E-04	2.51753E-04	1.99462E-04	1.57272E-04
7	1.49892E-04	9.74182E-05	7.64289E-05	6.00277E-05	4.71006E-05	3.68204E-05	2.87883E-05	2.25303E-05	1.76332E-05	1.35304E-05
7	1.02591E-07	9.59582E-08	5.56697E-06	3.38374E-06	2.05753E-06	1.24962E-06	7.58049E-07	4.59736E-07	2.78803E-07	1.69132E-07
7	1.23362E-11	4.53796E-12	1.66952E-12	6.14158E-13	2.25913E-13	8.31160E-14	3.05754E-14	1.77952E-14	0.00000E+00	0.00000E+00
7	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00

TO BE CONTINUED

 * << MICRO SCOPIC TRANSFER MATRICIES TABLE >>
 *
 * LIBRARY NAME = J439B.BERMJ3.DATA
 * CODE NUMBER = 36

PAGE 5 OF 20

GROUP I	EXIT J=	GROUP	** KK **	KK = I + J - 1	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
	21	22	23	24	25	26	27	28	29	30
	31	32	33	34	35	36	37	38	39	40
	41	42	43	44	45	46	47	48	49	50
	51	52	53	54	55	56	57	58	59	60
	61	62	63	64	65	66	67	68	69	70
	71	72	73	74	75	76	77	78	79	80
	81	82	83	84	85	86	87	88	89	90
	91	92	93	94	95	96	97	98	99	100
	101	102	103	104	105	106	107	108	109	110
	111	112	113	114	115	116	117	118	119	120
	121	122	123	124	125					

9	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	4.90593E-08	4.32413E-06	8.96886E-06	1.63181E-05	2.84332E-05
	4.75333E-05	7.64695E-05	1.18591E-04	1.77891E-04	2.58262E-04	3.63822E-04	4.98403E-04	6.64584E-04	8.64776E-04	1.09891E-03
	1.36531E-03	1.66261E-03	1.98551E-03	2.32732E-03	2.68212E-03	3.03992E-03	3.39642E-03	3.73882E-03	4.06213E-03	4.35713E-03
	4.61913E-03	4.84733E-03	1.01961E-02	1.05731E-02	1.05691E-02	1.02851E-02	9.75616E-03	9.03046E-03	8.19043E-03	7.31385E-03
	6.42204E-03	5.55603E-03	4.74803E-03	4.01353E-03	3.35912E-03	2.78622E-03	2.29812E-03	1.88421E-03	1.53241E-03	1.24091E-03
	1.00021E-03	8.01885E-04	6.42044E-04	5.10993E-04	4.07133E-04	3.22172E-04	2.54752E-04	2.01781E-04	1.59251E-04	1.25401E-04
	9.86727E-05	7.73975E-05	6.07674E-05	4.77073E-05	3.73042E-05	2.91622E-05	2.28181E-05	1.78541E-05	1.49172E-05	1.15181E-05
	9.25616E-06	5.63934E-06	3.42772E-06	2.08411E-06	1.26601E-06	7.68045E-07	4.65793E-07	2.82482E-07	1.71361E-07	1.03941E-07
	1.01271E-07	3.72552E-08	1.37061E-08	5.04213E-09	1.85491E-09	6.82364E-10	2.51022E-10	9.23536E-11	3.39722E-11	1.24991E-11
	4.59773E-12	1.69151E-12	6.22254E-13	2.28892E-13	8.42116E-14	3.09782E-14	1.80291E-14	0.00000E+00	0.00000E+00	0.00000E+00
	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	2.47013E-06	8.27121E-06	1.51362E-05	2.65113E-05	4.45436E-05
	7.19990E-05	1.12151E-04	1.68932E-04	2.46213E-04	3.48114E-04	4.78536E-04	6.40168E-04	8.35591E-04	1.06481E-03	1.32632E-03
	1.61972E-03	1.93803E-03	2.27783E-03	2.63023E-03	2.98624E-03	3.34284E-03	3.68655E-03	4.01195E-03	4.31006E-03	4.57616E-03
	4.81856E-03	1.01391E-02	1.05221E-02	1.05401E-02	1.02771E-02	9.76893E-03	9.05402E-03	8.22741E-03	7.34620E-03	6.46009E-03
	5.59387E-03	4.78406E-03	4.04595E-03	3.38735E-03	2.81404E-03	2.31853E-03	1.90313E-03	1.54852E-03	1.25452E-03	1.01101E-03
	8.10941E-04	6.49459E-04	5.16997E-04	4.11805E-04	3.26244E-04	2.57813E-04	2.04083E-04	1.61252E-04	1.26932E-04	9.99193E-05
	7.83800E-05	6.15188E-05	4.83086E-05	3.77935E-05	2.95394E-05	2.31093E-05	1.80782E-05	1.42323E-05	1.10382E-05	8.37462E-06
	5.71208E-06	3.47225E-06	2.11093E-06	1.28262E-06	7.78120E-07	4.71906E-07	2.86184E-07	1.73602E-07	1.05311E-07	6.02601E-07
	3.77435E-08	1.38862E-08	5.10837E-09	1.87922E-09	6.91319E-10	2.54323E-10	9.35653E-11	3.44185E-11	1.26632E-11	4.65806E-12
	1.71372E-12	6.30418E-13	2.31893E-13	8.53161E-14	3.13854E-14	1.82662E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00

TO BE CONTINUED

 * << MICRO SCOPIC TRANSFER MATRICIES TABLE >>
 *
 * LIBRARY NAME = J439B.BERMJ3.DATA
 * CODE NUMBER = 36

PAGE 6 OF 20

GROUP I	EXIT	GROUP	KK	KK	KK	I + J	5	6	7	8	9	10
11	1	2	3	4	5	6	15	16	17	18	19	20
	11	12	13	14	15	16	22	26	27	28	29	30
	21	22	23	24	25	26	31	36	37	38	39	40
	31	32	33	34	35	36	41	46	47	48	49	50
	41	42	43	44	45	46	51	56	57	58	59	60
	51	52	53	54	55	56	61	66	67	68	69	70
	61	62	63	64	65	66	71	76	77	78	79	80
	71	72	73	74	75	76	81	86	87	88	89	90
	81	82	83	84	85	86	91	96	97	98	99	100
	91	92	93	94	95	96	101	106	107	108	109	110
	101	102	103	104	105	106	111	116	117	118	119	120
	111	112	113	114	115	116	121	126	127	128	129	130
	121	122	123	124	125	126						

TO BE CONTINUED

 * << MICRO SCOPIC TRANSFER MATRICIES TABLE >>
 *
 * LIBRARY NAME = J439B.BERMJ3.DATA
 * CODE NUMBER = 36

PAGE 8 OF 20

GROUP I	EXIT J=	GROUP	** KK **	KK = I + J - 1	5	6	7	8	9	10
	1	2	3	4	15	16	17	18	19	20
	11	12	13	14	25	26	27	28	29	30
	21	22	23	24	35	36	37	38	39	40
	31	32	33	34	45	46	47	48	49	50
	41	42	43	44	55	56	57	58	59	60
	51	52	53	54	65	66	67	68	69	70
	61	62	63	64	75	76	77	78	79	80
	71	72	73	74	85	86	87	88	89	90
	81	82	83	84	95	96	97	98	99	100
	91	92	93	94	105	106	107	108	109	110
	101	102	103	104	115	116	117	118	119	120
	111	112	113	114	125					
	121	122	123	124						

15	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
	0.0000E+00	0.0000E+00	4.00114E-06	1.69312E-05	2.91833E-05	4.83185E-05	7.69827E-05	1.18441E-04	1.76102E-04	2.53702E-04
	3.54943E-04	4.82754E-04	6.39996E-04	8.27628E-04	1.04511E-03	1.29271E-03	1.56601E-03	1.86122E-03	2.17242E-03	2.49172E-03
	2.81603E-03	3.13283E-03	3.43783E-03	3.72264E-03	3.98174E-03	4.22214E-03	4.41919E-03	4.54479E-03	4.61705E-03	4.6893E-03
	8.96818E-03	8.38698E-03	7.66587E-03	6.87706E-03	6.07185E-03	5.28725E-03	4.53864E-03	3.85144E-03	3.23643E-03	2.69173E-03
	2.2372E-03	1.82492E-03	1.49101E-03	1.20961E-03	9.76319E-04	7.84647E-04	6.27996E-04	5.01685E-04	3.98784E-04	3.16893E-04
	2.50802E-04	1.97912E-04	1.56431E-04	1.23491E-04	9.71079E-05	7.63737E-05	5.98866E-05	4.69674E-05	3.68544E-05	2.88233E-05
	2.25292E-05	1.76082E-05	1.35332E-05	1.00061E-05	7.56635E-06	5.56635E-06	3.38703E-06	2.05812E-06	1.25111E-06	7.59457E-07
	4.60584E-07	2.79323E-07	1.69442E-07	1.02781E-07	5.56635E-08	3.38703E-08	1.35531E-08	4.98575E-09	1.83412E-09	6.74736E-10
	2.48222E-10	9.13209E-11	3.35923E-11	1.23591E-11	4.54634E-12	1.67262E-12	6.15296E-13	2.26332E-13	8.32698E-14	3.06323E-14
	1.78282E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
	0.00000E+00	0.00000E+00	1.40411E-05	2.64982E-05	4.40853E-05	7.05665E-05	1.09041E-04	1.62791E-04	2.35432E-04	3.30562E-04
	4.51123E-04	5.9975E-04	7.78196E-04	9.85467E-04	1.22211E-03	1.48411E-03	1.76821E-03	2.06822E-03	2.37742E-03	2.69142E-03
	3.00012E-03	3.29823E-03	3.57693E-03	3.83113E-03	4.06163E-03	4.26236E-03	4.41817E-03	4.52497E-03	4.5910977E-03	4.62036E-03
	8.17346E-03	7.48255E-03	6.72025E-03	5.93295E-03	5.17504E-03	4.44553E-03	3.77473E-03	3.17312E-03	2.64212E-03	2.18562E-03
	1.79131E-03	1.46461E-03	1.18881E-03	9.59747E-04	7.71296E-04	6.17845E-04	4.93374E-04	3.92473E-04	3.11632E-04	2.47002E-04
	1.94811E-04	1.53881E-04	1.21561E-04	9.55967E-05	7.51886E-05	5.89804E-05	4.62423E-05	3.62813E-05	2.83982E-05	2.21922E-05
	1.73421E-05	2.41752E-05	1.47801E-05	9.00077E-06	5.48174E-06	3.33652E-06	2.02732E-06	1.23221E-06	7.48186E-07	4.53753E-07
	2.75172E-07	1.66921E-07	1.02161E-07	9.86568E-08	3.62913E-08	1.33521E-08	4.91174E-09	1.80691E-09	6.64715E-10	2.44532E-10
	8.99657E-11	3.30942E-11	1.21761E-11	4.47883E-12	1.64771E-12	6.06165E-13	2.29272E-13	8.20336E-14	3.01772E-14	1.75631E-14
	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00

TO BE CONTINUED

 * << MICRO SCOPIC TRANSFER MATRICIES TABLE >>
 *
 * LIBRARY NAME = J439B.BERMJ3.DATA
 * CODE NUMBER = 36

PAGE 9 OF 20

GROUP I	EXIT J=	GROUP	** KK **	KK = I + J - 1	5	6	7	8	9	10
	11	2	3	4	15	16	17	18	19	20
	11	12	13	14	25	26	27	28	29	30
	21	22	23	24	35	36	37	38	39	40
	31	32	33	34	45	46	47	48	49	50
	41	42	43	44	55	56	57	58	59	60
	51	52	53	54	65	66	67	68	69	70
	61	62	63	64	75	76	77	78	79	80
	71	72	73	74	85	86	87	88	89	90
	81	82	83	84	95	96	97	98	99	100
	91	92	93	94	105	106	107	108	109	110
	101	102	103	104	115	116	117	118	119	120
	111	112	113	114	125					
	121	122	123	124						

17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
	0.00000E+00	7.32430E-06	2.37523E-05	3.97156E-05	6.38659E-05	9.91214E-05	1.48592E-04	2.15723E-04	3.03994E-04	4.16286E-04
	5.55408E-04	7.22570E-04	9.17623E-04	1.14112E-03	1.38912E-03	1.65882E-03	1.94483E-03	2.23973E-03	2.54104E-03	2.83764E-03
	3.12434E-03	3.39405E-03	3.64455E-03	3.86536E-03	4.00428E-03	4.16116E-03	4.33761E-03	4.52994E-03	4.73782E-03	4.95111E-03
	7.21350E-03	6.48489E-03	5.72738E-03	5.00267E-03	4.30116E-03	3.65425E-03	3.07414E-03	2.56194E-03	2.11893E-03	1.73782E-03
	1.42082E-03	1.15402E-03	9.31853E-04	7.49041E-04	6.00428E-04	4.79207E-04	3.81635E-04	3.02784E-04	2.40213E-04	1.89463E-04
	1.49562E-04	1.18182E-04	9.29733E-05	7.31110E-05	5.73858E-05	4.49776E-05	3.52785E-05	2.76354E-05	2.15963E-05	1.68722E-05
	2.35143E-05	1.43802E-05	8.75782E-06	5.33268E-06	3.24665E-06	1.97253E-06	1.19892E-06	7.28110E-07	4.41576E-07	2.67794E-07
	1.62442E-07	9.85394E-08	9.60094E-08	3.53175E-08	1.29932E-08	4.77997E-09	1.75843E-09	6.46879E-10	2.37973E-10	8.75512E-11
	3.22055E-11	1.18492E-11	4.35866E-12	1.60352E-12	5.89898E-13	2.16983E-13	7.98321E-14	2.93674E-14	1.70922E-14	0.00000E+00
	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
	0.00000E+00	2.04573E-05	3.57396E-05	5.77439E-05	9.00195E-05	1.35502E-04	1.97483E-04	2.79324E-04	3.83816E-04	5.13748E-04
	6.70401E-04	8.53814E-04	1.06462E-03	1.29932E-03	1.55513E-03	1.82743E-03	2.10903E-03	2.39734E-03	2.68184E-03	2.93865E-03
	3.21915E-03	3.46356E-03	3.68296E-03	3.90463E-03	4.14232E-03	4.39423E-03	4.65933E-03	4.93733E-03	5.22633E-03	5.52633E-03
	6.25330E-03	5.53049E-03	4.83208E-03	4.15947E-03	3.53660E-03	2.97745E-03	2.48254E-03	2.05313E-03	1.68603E-03	1.37742E-03
	1.11982E-03	9.04365E-04	7.27382E-04	5.83149E-04	4.65327E-04	3.70906E-04	2.94145E-04	2.33444E-04	1.84213E-04	1.45332E-04
	1.14822E-04	9.03995E-05	7.10582E-05	5.58139E-05	4.37357E-05	3.42925E-05	2.68794E-05	2.10083E-05	1.64113E-05	1.28644E-05
	1.39842E-05	8.51854E-06	5.18598E-06	3.15785E-06	1.91863E-06	1.16602E-06	7.08311E-07	4.29567E-07	2.60514E-07	1.58033E-07
	9.58605E-08	9.33995E-08	3.43576E-08	1.26402E-08	4.64997E-09	1.71063E-09	6.29300E-10	2.31504E-10	8.51714E-11	3.13305E-11
	1.15272E-11	4.24017E-12	1.55992E-12	5.73859E-13	2.11083E-13	7.76623E-14	2.85695E-14	1.66273E-14	0.00000E+00	0.00000E+00
	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00

TO BE CONTINUED

 * * << MICRO SCOPIC TRANSFER MATRICIES TABLE >>
 * *
 * * LIBRARY NAME = J439B.BERMJ3.DATA
 * * CODE NUMBER = 36

 PAGE 10 OF 20

GROUP I	EXIT J=	GROUP	** KK **	KK = I + J -	5	6	7	8	9	10
	1	2	3	4	15	16	17	18	19	20
	11	12	13	14	25	26	27	28	29	30
	21	22	23	24	35	36	37	38	39	40
	31	32	33	34	45	46	47	48	49	50
	41	42	43	44	55	56	57	58	59	60
	51	52	53	54	65	66	67	68	69	70
	61	62	63	64	75	76	77	78	79	80
	71	72	73	74	85	86	87	88	89	90
	81	82	83	84	95	96	97	98	99	100
	91	92	93	94	105	106	107	108	109	110
	101	102	103	104	115	116	117	118	119	120
	111	112	113	114	125					
	121	122	123	124						
	121	122	123	124						

19	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
	1.17692E-05	3.20575E-05	5.20408E-05	8.14863E-05	1.23172E-04	1.80223E-04	2.55854E-04	3.52786E-04	4.73758E-04	6.20120E-04
	7.92053E-04	9.90246E-04	1.21172E-03	1.45382E-03	1.71193E-03	1.98023E-03	2.25504E-03	2.52784E-03	2.79315E-03	3.04405E-03
	3.27635E-03	3.49406E-03	3.74858E-03	3.93632E-03	4.10013E-03	4.25069E-03	4.39864E-03	4.53173E-03	4.65139E-03	4.76139E-03
	5.32848E-03	4.65387E-03	4.01156E-03	3.41346E-03	2.87575E-03	2.39864E-03	1.98403E-03	1.63173E-03	1.33162E-03	1.08372E-03
	8.75504E-04	7.06492E-04	5.64749E-04	4.50767E-04	3.59416E-04	2.85054E-04	2.26184E-04	1.78663E-04	1.40872E-04	1.11232E-04
	8.76694E-05	6.88841E-05	5.41329E-05	4.24177E-05	3.32495E-05	2.60684E-05	2.03833E-05	1.59202E-05	1.21753E-05	9.35612E-05
	8.26393E-06	5.03008E-06	3.06325E-06	1.86133E-06	1.13112E-06	6.87211E-07	4.16777E-07	2.52754E-07	1.53322E-07	9.30055E-08
	9.06184E-08	3.33345E-08	1.22642E-08	4.51157E-09	1.65973E-09	6.10560E-10	2.24614E-10	8.26353E-11	3.03975E-11	1.11832E-11
	4.11397E-12	1.51352E-12	5.56769E-13	2.04803E-13	7.53492E-14	2.77184E-14	1.61323E-14	0.00000E+00	0.00000E+00	0.00000E+00
	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
	2.82143E-05	4.68096E-05	7.36289E-05	1.11761E-04	1.64182E-04	2.33943E-04	3.23694E-04	4.36135E-04	5.72627E-04	7.33519E-04
	9.19571E-04	1.12811E-03	1.35682E-03	1.60132E-03	1.85602E-03	2.11823E-03	2.37853E-03	2.63293E-03	2.87586E-03	3.10524E-03
	3.30464E-03	3.710149E-03	4.10409E-03	4.47733E-03	4.83403E-03	5.1759E-03	5.5029E-03	5.8162E-03	6.1157E-03	6.4028E-03
	4.7545E-03	3.86395E-03	3.29004E-03	2.77333E-03	2.31403E-03	1.91572E-03	1.57652E-03	1.28572E-03	1.04721E-03	8.46311E-04
	6.81268E-04	5.46107E-04	4.36205E-04	3.47724E-04	2.75933E-04	2.18803E-04	1.73072E-04	1.36382E-04	1.07621E-04	8.48960E-05
	6.66968E-05	5.24216E-05	4.10885E-05	3.21974E-05	2.52433E-05	1.97512E-05	1.54242E-05	1.17478E-05	9.01171E-05	6.800650E-06
	4.87246E-06	2.96744E-06	1.80322E-06	1.09571E-06	6.65828E-07	4.03835E-07	2.44903E-07	1.48562E-07	9.01171E-08	5.78041E-08
	3.22994E-08	1.18831E-08	4.37145E-09	1.60812E-09	5.91597E-10	2.17633E-10	8.00690E-11	2.94534E-11	1.08361E-11	3.98615E-12
	1.46652E-12	5.59477E-13	1.98442E-13	7.30089E-14	2.68573E-14	1.56312E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00

TO BE CONTINUED


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*****
* << MICRO SCOPIC TRANSFER MATRICIES TABLE >>
*
* LIBRARY NAME = J439B-8ERMJ3.DATA
* CODE NUMBER = 36
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GROUP I	EXIT J=	GROUP	**	KK	**	KK	=	I	+	J	-	1	4	5	6	7	8	9	10	
	11	12	3	13	14	15	16	17	18	19	20									
	21	22	23	24	25	26	27	28	29	30										
	31	32	33	34	35	36	37	38	39	40										
	41	42	43	44	45	46	47	48	49	50										
	51	52	53	54	55	56	57	58	59	60										
	61	62	63	64	65	66	67	68	69	70										
	71	72	73	74	75	76	77	78	79	80										
	81	82	83	84	85	86	87	88	89	90										
	91	92	93	94	95	96	97	98	99	100										
	101	102	103	104	105	106	107	108	109	110										
	111	112	113	114	115	116	117	118	119	120										
	121	122	123	124	125															

21	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
	4.20754E-05	6.64786E-05	1.01341E-04	1.49461E-04	2.13772E-04	2.96843E-04	4.01274E-04	5.28495E-04	6.78976E-04	8.53538E-04	1.04981E-03	1.26561E-03	1.49721E-03	1.73902E-03	1.98872E-03	2.25732E-03	2.54133E-03	2.83623E-03	3.12813E-03	3.42813E-03
	6.73736E-03	7.17807E-03	7.36847E-03	7.31797E-03	7.07517E-03	6.65376E-03	6.14486E-03	5.55045E-03	4.92804E-03	4.30314E-03	3.72104E-03	3.17053E-03	2.67393E-03	2.23232E-03	1.84992E-03	1.52241E-03	1.24181E-03	1.01101E-03	8.15108E-04	6.57936E-04
	5.28015E-04	4.22084E-04	3.36283E-04	2.67112E-04	2.11642E-04	1.67592E-04	1.32041E-04	1.04131E-04	8.21738E-05	6.45756E-05	5.07495E-05	3.97974E-05	3.11763E-05	2.44372E-05	1.91362E-05	1.49421E-05	1.27171E-05	1.07560E-05	8.71924E-06	7.19244E-06
	2.87403E-06	3.74632E-06	4.86051E-06	6.44256E-07	8.64256E-07	1.139774E-07	1.43751E-07	1.82018E-08	2.31254E-08	2.92543E-08	3.6681E-09	4.5611E-09	5.6255E-10	6.8992E-10	8.4125E-11	1.0251E-10	1.2486E-11	1.5224E-11	1.85724E-12	2.2543E-12
	1.14981E-08	4.23004E-09	1.55611E-09	5.72455E-10	2.10592E-10	7.74787E-11	2.85003E-11	1.04861E-11	3.85724E-12	1.41901E-12	5.22025E-13	1.92022E-13	7.06476E-14	2.59892E-14	1.51251E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
22	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
	6.00882E-05	9.19923E-05	1.36220E-04	1.95571E-04	2.72531E-04	3.69631E-04	4.88361E-04	6.29262E-04	7.93232E-04	9.78153E-04	1.18220E-03	1.40170E-03	1.63170E-03	1.86961E-03	2.10761E-03	2.34121E-03	2.56941E-03	2.77661E-03	2.96921E-03	3.12813E-03
	6.85102E-03	7.05052E-03	7.00152E-03	6.77902E-03	6.39971E-03	5.90461E-03	5.33891E-03	4.74391E-03	4.14641E-03	3.58731E-03	3.05981E-03	2.58231E-03	2.15751E-03	1.78880E-03	1.47190E-03	1.20930E-04	9.78433E-04	7.89422E-04	6.36522E-04	5.11481E-04
	4.08971E-04	3.25731E-04	2.58991E-04	2.05081E-04	1.62480E-04	1.28060E-04	1.00930E-04	7.96442E-05	6.26282E-05	4.92011E-05	3.86101E-05	3.02381E-05	2.36941E-05	1.85660E-05	1.44980E-05	2.01790E-05	1.23330E-05	7.52542E-06	4.57811E-06	2.78781E-06
	1.69300E-06	1.02680E-06	6.22872E-07	3.77751E-07	2.29091E-07	1.38970E-07	8.42973E-08	5.21332E-08	3.02131E-08	1.11150E-08	4.08911E-09	1.50430E-09	5.3382E-10	2.03581E-10	7.48972E-11	2.75511E-11	1.01360E-11	3.72871E-12	1.37180E-12	5.04641E-13
	1.85621E-13	6.82942E-14	2.51231E-14	1.46220E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00

TO BE CONTINUED

* * * * * << MICRO SCOPIC TRANSFER MATRICIES TABLE >> * * * * *
* * * * * LIBRARY NAME = J439B.BERMJ3.DATA * * * * *
* * * * * CODE NUMBER = 36 * * * * *

PAGE 12 OF 20

GROUP I	J=	EXIT	GROUP	** KK **	KK = I + J - 1	4	5	6	7	8	9	10
23	1	1	2	3	4	5	6	7	8	9	10	
	11	11	12	13	14	15	16	17	18	19	20	
	21	21	22	23	24	25	26	27	28	29	30	
	31	31	32	33	34	35	36	37	38	39	40	
	41	41	42	43	44	45	46	47	48	49	50	
	51	51	52	53	54	55	56	57	58	59	60	
	61	61	62	63	64	65	66	67	68	69	70	
	71	71	72	73	74	75	76	77	78	79	80	
	81	81	82	83	84	85	86	87	88	89	90	
	91	91	92	93	94	95	96	97	98	99	100	
	101	101	102	103	104	105	106	107	108	109	110	
	111	111	112	113	114	115	116	117	118	119	120	
	121	121	122	123	124	125						
23	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	8	34309E-05	1.24051E-04	1.78772E-04	2.50003E-04	3.40224E-04	4.50945E-04	5.82756E-04	7.36668E-04	9.10779E-04	1.10351E-03	0
	1	31141E-03	1.52992E-03	1.75652E-03	1.98392E-03	2.20792E-03	2.42543E-03	2.62923E-03	2.81273E-03	3.07776E-03	3.34267E-03	0
	6	72427E-03	6.69567E-03	6.48757E-03	6.13746E-03	5.67006E-03	5.13235E-03	4.56395E-03	3.99634E-03	3.45604E-03	2.95163E-03	0
	2	49283E-03	2.08402E-03	1.72852E-03	1.42231E-03	1.16321E-03	9.46090E-04	7.64538E-04	6.15536E-04	4.95265E-04	3.96014E-04	0
	3	15453E-04	2.50933E-04	1.98692E-04	1.57412E-04	1.24161E-04	9.78060E-05	7.71438E-05	6.07196E-05	4.76825E-05	3.74384E-05	0
	2	93183E-05	2.29652E-05	1.80022E-05	1.40621E-05	1.09568E-05	8.19551E-06	6.19551E-06	4.43955E-06	2.70313E-06	1.64222E-06	0
	9	95970E-07	6.04196E-07	3.66424E-07	2.22222E-07	1.34801E-07	8.17698E-08	4.96708E-08	2.93073E-08	1.07821E-08	3.96654E-09	0
	1	45922E-09	5.36795E-10	1.97472E-10	7.26517E-11	2.67253E-11	9.83250E-12	3.61694E-12	1.33061E-12	4.89505E-13	1.80062E-13	0
	6	62467E-14	2.43703E-14	1.41831E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	1	12711E-04	1.63061E-04	2.28862E-04	3.12512E-04	4.15523E-04	5.38593E-04	6.82764E-04	8.46375E-04	1.02801E-03	1.22461E-03	0
	1	43171E-03	1.64731E-03	1.86391E-03	2.08031E-03	2.28972E-03	2.48382E-03	2.65792E-03	2.81846E-03	3.07984E-03	3.34267E-03	0
	6	39074E-03	6.19894E-03	5.87444E-03	5.43533E-03	4.92543E-03	4.38583E-03	3.84493E-03	3.32362E-03	2.84282E-03	2.40242E-03	0
	2	00951E-03	1.66721E-03	1.37241E-03	1.12361E-03	9.13171E-04	7.39385E-04	5.94534E-04	4.78613E-04	3.82792E-04	3.05112E-04	0
	2	42662E-04	1.92231E-04	1.52211E-04	1.20211E-04	9.46406E-05	7.46005E-05	5.87704E-05	4.61423E-05	3.62362E-05	2.83832E-05	0
	2	22261E-05	1.74231E-05	1.36181E-05	1.09461E-05	8.15711E-05	7.06695E-06	4.29833E-06	2.61682E-06	1.59041E-06	9.64576E-07	0
	5	85154E-07	3.54872E-07	2.15211E-07	1.30551E-07	7.91925E-08	7.71595E-08	2.83832E-08	1.04421E-08	3.84142E-09	1.41321E-09	0
	5	19873E-10	1.91251E-10	7.03625E-11	2.58822E-11	9.52256E-12	3.50292E-12	1.28871E-12	4.74073E-13	1.74381E-13	6.41584E-14	0
	2	36022E-14	1.37361E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	1	12711E-04	1.63061E-04	2.28862E-04	3.12512E-04	4.15523E-04	5.38593E-04	6.82764E-04	8.46375E-04	1.02801E-03	1.22461E-03	0
	1	43171E-03	1.64731E-03	1.86391E-03	2.08031E-03	2.28972E-03	2.48382E-03	2.65792E-03	2.81846E-03	3.07984E-03	3.34267E-03	0
	6	39074E-03	6.19894E-03	5.87444E-03	5.43533E-03	4.92543E-03	4.38583E-03	3.84493E-03	3.32362E-03	2.84282E-03	2.40242E-03	0
	2	00951E-03	1.66721E-03	1.37241E-03	1.12361E-03	9.13171E-04	7.39385E-04	5.94534E-04	4.78613E-04	3.82792E-04	3.05112E-04	0
	2	42662E-04	1.92231E-04	1.52211E-04	1.20211E-04	9.46406E-05	7.46005E-05	5.87704E-05	4.61423E-05	3.62362E-05	2.83832E-05	0
	2	22261E-05	1.74231E-05	1.36181E-05	1.09461E-05	8.15711E-05	7.06695E-06	4.29833E-06	2.61682E-06	1.59041E-06	9.64576E-07	0
	5	85154E-07	3.54872E-07	2.15211E-07	1.30551E-07	7.91925E-08	7.71595E-08	2.83832E-08	1.04421E-08	3.84142E-09	1.41321E-09	0
	5	19873E-10	1.91251E-10	7.03625E-11	2.58822E-11	9.52256E-12	3.50292E-12	1.28871E-12	4.74073E-13	1.74381E-13	6.41584E-14	0
	2	36022E-14	1.37361E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0

TO BE CONTINUED

```

*****
* * * * *
* * * * * << MICRO SCOPIC TRANSFER MATRCIES TABLE >>
* * * * *
* * * * * LIBRARY NAME = J439B.BERMJ3.DATA
* * * * * CODE NUMBER = 36
*****

```

GROUP I	EXIT J=	GROUP	**	KK	**	KK	= I + J - 1	5	6	7	8	9	10
25	1	2	3	4	5	6	7	8	9	10	11	12	13
	11	12	13	14	15	16	17	18	19	20			
	21	22	23	24	25	26	27	28	29	30			
	31	32	33	34	35	36	37	38	39	40			
	41	42	43	44	45	46	47	48	49	50			
	51	52	53	54	55	56	57	58	59	60			
	61	62	63	64	65	66	67	68	69	70			
	71	72	73	74	75	76	77	78	79	80			
	81	82	83	84	85	86	87	88	89	90			
	91	92	93	94	95	96	97	98	99	100			
	101	102	103	104	105	106	107	108	109	110			
	111	112	113	114	115	116	117	118	119	120			
	121	122	123	124	125								

0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
1.48451E-04	2.09111E-04	2.86511E-04	3.82171E-04	4.96892E-04	6.31652E-04	7.85113E-04	9.55984E-04	1.14150E-03	1.33750E-03	1.54211E-03	1.74851E-03	1.95651E-03	2.15561E-03
1.54211E-03	1.74851E-03	1.95651E-03	2.15561E-03	2.33951E-03	2.51131E-03	2.68291E-03	2.85471E-03	3.02651E-03	3.19831E-03	3.37011E-03	3.54191E-03	3.71371E-03	3.88551E-03
5.91682E-03	5.61262E-03	5.20172E-03	4.72001E-03	4.20811E-03	3.69211E-03	3.19121E-03	2.73381E-03	2.31171E-03	1.93451E-03	1.60571E-03	1.32350E-03	1.08320E-03	8.80423E-04
1.60571E-03	1.32350E-03	1.08320E-03	8.80423E-04	7.13623E-04	5.73622E-04	4.61652E-04	3.69441E-04	2.94701E-04	2.34261E-04	1.85741E-04	1.46951E-04	1.16190E-04	9.14533E-05
1.85741E-04	1.46951E-04	1.16190E-04	9.14533E-05	7.20443E-05	5.67802E-05	4.45892E-05	3.50141E-05	2.74381E-05	2.14801E-05	1.68351E-05	1.31691E-05	1.03171E-05	8.11820E-06
1.68351E-05	1.31691E-05	1.03171E-05	8.11820E-06	6.83153E-06	4.15542E-06	2.52941E-06	1.53791E-06	9.32754E-07	5.65842E-07	3.43171E-07	2.08111E-07	1.26240E-07	7.65793E-08
3.43171E-07	2.08111E-07	1.26240E-07	7.65793E-08	4.61333E-08	2.74471E-08	1.00980E-08	3.71471E-09	1.36661E-09	5.02722E-10	1.84941E-10	6.80403E-11	2.50281E-11	9.20833E-12
1.84941E-10	6.80403E-11	2.50281E-11	9.20833E-12	3.38731E-12	1.24620E-12	4.58442E-13	1.68631E-13	6.20412E-14	2.28231E-14	1.32830E-14	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
1.90673E-04	2.62154E-04	3.50825E-04	4.57487E-04	5.83249E-04	7.26882E-04	8.87314E-04	1.06202E-03	1.24712E-03	1.44092E-03	1.63863E-03	1.83583E-03	2.02383E-03	2.20284E-03
1.63863E-03	1.83583E-03	2.02383E-03	2.20284E-03	2.36754E-03	2.51798E-03	2.66744E-03	2.81690E-03	2.96636E-03	3.11582E-03	3.26528E-03	3.41474E-03	3.56420E-03	3.71366E-03
5.35239E-03	4.97308E-03	4.51537E-03	4.02996E-03	3.53826E-03	3.06754E-03	2.62344E-03	2.22064E-03	1.85933E-03	1.54442E-03	1.27362E-03	1.04222E-03	8.47884E-04	6.87231E-04
1.27362E-03	1.04222E-03	8.47884E-04	6.87231E-04	5.52759E-04	4.44407E-04	3.56066E-04	2.84104E-04	2.25764E-04	1.79183E-04	1.41672E-04	1.12082E-04	8.82404E-05	6.94731E-05
1.41672E-04	1.12082E-04	8.82404E-05	6.94731E-05	5.47519E-05	4.30227E-05	3.37725E-05	2.64824E-05	2.07263E-05	1.62393E-05	1.27112E-05	9.76803E-06	7.39292E-06	5.59251E-06
1.27112E-05	9.76803E-06	7.39292E-06	5.59251E-06	4.01076E-06	2.44084E-06	1.48462E-06	9.00485E-07	5.46269E-07	3.31295E-07	2.00913E-07	1.21872E-07	7.39292E-08	4.6974E-08
6.56871E-11	2.41624E-11	8.88974E-12	3.27015E-12	1.20302E-12	4.42577E-13	1.62793E-13	5.98949E-14	2.20334E-14	1.28232E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00

TO BE CONTINUED

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*****
* * * * << MICRO SCOPIC TRANSFER MATRICIES TABLE >> * * * *
* * * * LIBRARY NAME = J439B.BERMJ3.DATA * * * *
* * * * CODE NUMBER = 36 * * * *
*****

```

GROUP I	J=	EXIT	GROUP	**	KK	**	KK	**	KK	=	I	+	J	-	1	4	5	6	7	8	9	10
27	1	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
		31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51
		51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71
		81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101
		101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121
		121	122	123	124	125																122

0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
2.39710E-04	3.21820E-04	4.20970E-04	5.38250E-04	6.72600E-04	8.23161E-04	9.87561E-04	1.16250E-03	1.34620E-03	1.53460E-03	1.72120E-03	1.90200E-03	2.07240E-03	2.22900E-03	2.36190E-03	2.486190E-03	2.59820E-03	2.6940E-03	2.7740E-03	2.8390E-03	2.8850E-03	2.9140E-03	2.9280E-03
4.74830E-03	4.31890E-03	3.85830E-03	3.39000E-03	2.93770E-03	2.51650E-03	2.13280E-03	1.78700E-03	1.48520E-03	1.22510E-03	1.00250E-03	8.16811E-04	6.61470E-04	5.32860E-04	4.27780E-04	3.43170E-04	2.73820E-04	2.17620E-04	1.72790E-04	1.36610E-04	1.0870E-04	8.51501E-05	6.70021E-05
1.08070E-04	8.51501E-05	6.70021E-05	5.27820E-05	4.15130E-05	3.25740E-05	2.55560E-05	2.00000E-05	1.56650E-05	1.22660E-05	1.00650E-05	8.170650E-06	6.36111E-06	4.87100E-06	3.55330E-06	2.58000E-06	1.93710E-06	1.43300E-06	1.02990E-06	7.52730E-07	5.56560E-07	4.10810E-07	2.93770E-07
1.7650E-07	7.13691E-08	6.95371E-08	2.55800E-08	9.41081E-09	3.46200E-09	1.27360E-09	4.68520E-10	1.72360E-10	6.34111E-11	2.33260E-11	8.58181E-12	3.15690E-12	1.16140E-12	4.27240E-13	1.57160E-13	5.78201E-14	2.12700E-14	7.23790E-15	2.53950E-15	8.69291E-16	3.19820E-16	1.172790E-16
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
2.95041E-04	3.87131E-04	4.96402E-04	6.22032E-04	7.63203E-04	9.17854E-04	1.08270E-03	1.25820E-03	1.43631E-03	1.61321E-03	1.78471E-03	1.94761E-03	2.10031E-03	2.24841E-03	2.38171E-03	2.49921E-03	2.59591E-03	2.66711E-03	2.71681E-03	2.74711E-03	2.75511E-03	2.74911E-03	2.72811E-03
4.12912E-03	3.69261E-03	3.24841E-03	2.81801E-03	2.41281E-03	2.04781E-03	1.71681E-03	1.42751E-03	1.17790E-03	9.64514E-04	7.86373E-04	6.36352E-04	5.13582E-04	4.18020E-04	3.30501E-04	2.63771E-04	2.09761E-04	1.66511E-04	1.31710E-04	1.04130E-04	8.21513E-05	6.46072E-05	5.08652E-05
1.00430E-05	6.13532E-06	3.73491E-06	2.27211E-06	1.38250E-06	8.38893E-07	5.08902E-07	3.08631E-07	1.87171E-07	1.13540E-07	6.88732E-08	4.1052E-08	2.46851E-08	1.42302E-08	8.134091E-09	4.52131E-09	2.29900E-09	1.19460E-09	6.11942E-10	3.25101E-10	1.68173E-10	8.28173E-11	4.04651E-11
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00

TO BE CONTINUED

 * << MICRO SCOPIC TRANSFER MATRICIES TABLE >>
 *
 * LIBRARY NAME = J439B.BERMJ3.DATA
 * CODE NUMBER = 36

GROUP I	EXIT J=	GROUP	**	KK	**	KK	=	I	+	J	-	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16															
	21	22	23	24	25	26															
	31	32	33	34	35	36															
	41	42	43	44	45	46															
	51	52	53	54	55	56															
	61	62	63	64	65	66															
	71	72	73	74	75	76															
	81	82	83	84	85	86															
	91	92	93	94	95	96															
	101	102	103	104	105	106															
	111	112	113	114	115	116															
	121	122	123	124	125	126															

29	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
	3.55267E-04	4.56889E-04	5.74081E-04	7.06183E-04	8.51376E-04	1.00812E-03	1.17312E-03	1.34043E-03	1.50823E-03	1.67213E-03	1.82883E-03	1.97394E-03	2.10706E-03	2.23091E-03	2.34633E-03	2.45339E-03	2.55228E-03	2.64335E-03	2.72702E-03	2.80377E-03	2.87401E-03
	1.82883E-03	1.97394E-03	2.10706E-03	2.23091E-03	2.34633E-03	2.45339E-03	2.55228E-03	2.64335E-03	2.72702E-03	2.80377E-03	2.87401E-03	2.93914E-03	2.99944E-03	3.05599E-03	3.10888E-03	3.15811E-03	3.20368E-03	3.24559E-03	3.28384E-03	3.31843E-03	3.34946E-03
	3.52797E-03	3.10706E-03	2.69715E-03	2.30914E-03	1.96264E-03	1.64633E-03	1.36953E-03	1.13052E-03	9.26577E-04	7.55364E-04	6.11362E-04	4.93839E-04	3.95888E-04	3.17596E-04	2.53635E-04	2.01844E-04	1.60143E-04	1.26792E-04	9.00162E-05	6.3442E-05	4.63089E-05
	6.21972E-05	4.89379E-05	3.85347E-05	3.02396E-05	2.37264E-05	1.85804E-05	1.45443E-05	1.13862E-05	8.9471E-06	7.00000E-06	5.58947E-06	4.50219E-06	3.72921E-06	3.18392E-06	2.79219E-06	2.4443E-06	2.13862E-06	1.86342E-06	1.6162E-06	1.39724E-06	1.2015E-06
	5.90661E-06	3.59717E-06	2.18804E-06	1.3342E-06	8.08085E-07	4.90219E-07	2.97306E-07	1.80303E-07	1.09372E-07	6.63442E-08	4.6442E-08	3.27785E-08	2.37785E-08	1.7962E-08	1.37962E-08	1.07962E-08	8.1682E-09	6.1682E-09	4.6822E-09	3.5222E-09	2.6222E-09
	2.93466E-12	1.07962E-12	3.97168E-13	1.46093E-13	5.37490E-14	1.97724E-14	1.60223E-14	1.15072E-14	8.00000E-15	5.89471E-15	4.35528E-15	3.25528E-15	2.43552E-15	1.8392E-15	1.3792E-15	1.0192E-15	7.5792E-16	5.8947E-16	4.5528E-16	3.5222E-16	2.7922E-16
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	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
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	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
	4.19271E-04	5.28272E-04	6.51622E-04	7.88513E-04	9.35294E-04	1.08970E-03	1.24780E-03	1.40691E-03	1.56241E-03	1.71081E-03	1.84981E-03	1.97391E-03	2.08391E-03	2.17991E-03	2.26221E-03	2.33111E-03	2.38771E-03	2.43111E-03	2.46221E-03	2.48111E-03	2.49771E-03
	1.84981E-03	4.06082E-03	4.43111E-03	4.64702E-03	4.68571E-03	4.68571E-03	4.68571E-03	4.68571E-03	4.68571E-03	4.68571E-03	4.68571E-03	4.68571E-03	4.68571E-03	4.68571E-03	4.68571E-03	4.68571E-03	4.68571E-03	4.68571E-03	4.68571E-03	4.68571E-03	4.68571E-03
	2.96371E-03	2.57421E-03	2.20621E-03	1.87541E-03	1.57481E-03	1.3070E-03	1.08270E-03	8.87703E-04	7.23563E-04	5.86242E-04	4.73432E-04	3.79821E-04	3.04361E-04	2.43371E-04	1.93701E-04	1.53641E-04	1.21750E-04	9.61314E-05	7.59473E-05	5.97402E-05	4.69772E-05
	4.69772E-05	3.69861E-05	2.90441E-05	2.27801E-05	1.78511E-05	1.39701E-05	1.09330E-05	8.2701E-06	6.37522E-06	5.00000E-06	4.18522E-06	3.48522E-06	2.88522E-06	2.38522E-06	1.98522E-06	1.68522E-06	1.48522E-06	1.33522E-06	1.23522E-06	1.18522E-06	1.14522E-06
	3.45621E-06	2.10191E-06	1.27900E-06	7.6523E-07	4.71072E-07	2.85691E-07	1.73261E-07	1.05100E-07	6.37522E-08	4.18522E-08	2.85691E-08	1.98522E-08	1.33522E-08	9.16502E-09	6.37522E-09	4.5522E-09	3.2552E-09	2.3552E-09	1.7552E-09	1.3052E-09	9.8052E-10
	2.28501E-08	8.40653E-09	3.09251E-09	1.13770E-09	4.18522E-10	1.53961E-10	5.66442E-11	2.08361E-11	7.66603E-12	2.82001E-12	1.03740E-12	3.81651E-13	1.40390E-13	5.16502E-14	1.90001E-14	7.00000E-15	2.50000E-15	9.00000E-16	3.20000E-16	1.10000E-16	4.00000E-17
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	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00

TO BE CONTINUED

 * << MICRO SCOPIC TRANSFER MATRICIES TABLE >>
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 * LIBRARY NAME = J439B.BERMJ3.DATA
 * CODE NUMBER = 36

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	11	11	12	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
	21	21	22	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23
	31	31	32	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33
	41	41	42	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43
	51	51	52	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53
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	71	71	72	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73
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	101	101	102	103	103	103	103	103	103	103	103	103	103	103	103	103	103	103	103	103
	111	111	112	113	113	113	113	113	113	113	113	113	113	113	113	113	113	113	113	113
	121	121	122	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123
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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4	85050E-04	6.00701E-04	7.28131E-04	8.64871E-04	1.00990E-03	1.15870E-03	1.30880E-03	1.45620E-03	1.59780E-03	1.73070E-03	1.85620E-03	1.9780E-03	2.0951E-03	2.2071E-03	2.3141E-03	2.4161E-03	2.5131E-03	2.6051E-03	2.6921E-03
	3	80510E-03	4.16260E-03	4.38080E-03	4.42680E-03	4.34271E-03	4.16470E-03	3.88830E-03	3.56260E-03	3.19690E-03	2.82050E-03	2.45180E-03	2.10460E-03	1.78780E-03	1.50250E-03	1.25170E-03	1.03450E-03	8.48451E-04	6.91650E-04	5.61100E-04
	2	63810E-04	2.91100E-04	2.33010E-04	1.85460E-04	1.47140E-04	1.16620E-04	9.20911E-05	7.27401E-05	5.72690E-05	4.52700E-05	3.54190E-05	2.78390E-05	2.18270E-05	1.71110E-05	1.33910E-05	1.04770E-05	8.90361E-06	7.43590E-06	6.31370E-06
	1	01500E-06	1.22600E-06	7.44621E-07	4.51720E-07	2.73960E-07	1.66140E-07	1.00780E-07	6.11341E-08	3.95651E-08	2.19110E-08	1.06121E-09	2.96550E-09	1.09090E-09	4.01330E-10	1.47640E-10	5.43180E-11	1.99810E-11	7.35111E-12	2.70410E-12
	0	65970E-13	1.34620E-13	4.95280E-14	1.82200E-14	1.06040E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
	0	00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
	0	00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
	0	00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
	0	00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
	5	51702E-04	6.70083E-04	7.97744E-04	9.33464E-04	1.07320E-03	1.21471E-03	1.35391E-03	1.48781E-03	1.61371E-03	1.73070E-03	1.83952E-03	1.93952E-03	2.02010E-03	2.08952E-03	2.14981E-03	2.20020E-03	2.24231E-03	2.277861E-03	2.30520E-03
	3	89952E-03	4.11352E-03	4.17312E-03	4.10472E-03	3.93522E-03	3.67902E-03	3.37372E-03	3.03201E-03	2.67791E-03	2.33051E-03	2.00201E-03	1.69981E-03	1.42701E-03	1.19081E-03	9.85955E-04	8.08794E-04	6.59863E-04	5.35492E-04	4.31832E-04
	2	7861E-04	2.22431E-04	1.77101E-04	1.40611E-04	1.11411E-04	8.80254E-05	6.94803E-05	5.47692E-05	4.30252E-05	3.38382E-05	2.66101E-05	2.08461E-05	1.63291E-05	1.27841E-05	1.00050E-05	8.1694E-06	6.51982E-06	5.19882E-06	4.16891E-06
	1	17221E-06	7.12273E-07	4.32102E-07	2.62051E-07	1.58921E-07	9.64044E-08	5.84783E-08	3.69773E-08	2.09601E-08	1.271104E-09	1.17221E-09	1.04360E-09	8.3892E-10	6.4221E-10	4.91582E-11	3.519582E-11	2.58671E-11	1.91131E-11	1.41221E-11
	0	283671E-09	1.04360E-09	3.83892E-10	1.41221E-10	5.19582E-11	1.91131E-11	7.03173E-12	2.58671E-12	9.51615E-13	3.50082E-13	1.28771E-13	4.73772E-14	1.74281E-14	1.01430E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
	0	00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
	0	00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
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	0	00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00

TO BE CONTINUED

* << MICRO SCOPIC TRANSFER MATRICIES TABLE >>
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* LIBRARY NAME = J439B.BERMJ3.DATA
* CODE NUMBER = 36

GROUP I	J=	EXIT	GROUP	KK	**	KK	**	KK	=	I	+	J	-	1	6	7	8	9	10
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0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
5.4804E-04	6.56149E-04	7.71977E-04	8.92065E-04	1.01438E-03	1.13578E-03	1.25348E-03	1.36508E-03	1.46813E-03	1.56206E-03	1.64689E-03	1.72221E-03	1.78856E-03	1.84535E-03	1.89212E-03	1.92853E-03	1.95414E-03	1.96955E-03	1.97547E-03	1.97150E-03
3.53914E-03	3.61234E-03	3.57424E-03	3.43744E-03	3.22585E-03	2.96035E-03	2.67136E-03	2.36586E-03	2.06337E-03	1.77547E-03	1.51125E-03	1.27108E-03	1.05938E-03	8.78656E-04	7.22218E-04	5.89820E-04	4.78722E-04	3.86744E-04	3.11125E-04	2.49246E-04
1.99047E-04	1.58787E-04	1.26158E-04	9.99444E-05	7.90617E-05	6.23730E-05	4.91852E-05	3.86874E-05	3.03865E-05	2.38866E-05	1.87387E-05	1.46558E-05	1.14698E-05	8.97625E-06	7.66277E-06	6.67182E-06	5.84905E-06	5.12792E-06	4.52296E-06	4.02296E-06
6.40850E-07	3.88884E-07	2.35846E-07	1.43028E-07	8.67616E-08	5.26301E-08	3.2850E-08	2.32796E-08	1.88637E-08	1.58646E-08	1.35063E-08	1.15888E-08	1.00000E-08	8.56446E-09	7.32796E-09	6.32850E-09	5.52296E-09	4.88637E-09	4.35063E-09	3.88637E-09
9.39185E-10	3.45494E-10	1.27098E-10	4.67612E-11	1.72007E-11	6.32850E-12	2.32796E-12	8.56446E-13	3.15063E-13	1.15888E-13	0.00000E-13	0.00000E-13	0.00000E-13	0.00000E-13	0.00000E-13	0.00000E-13	0.00000E-13	0.00000E-13	0.00000E-13	0.00000E-13
4.26383E-14	1.56857E-14	9.12875E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
4.64992E-04	5.52062E-04	6.43442E-04	7.37593E-04	8.32083E-04	9.24844E-04	1.01400E-03	1.10140E-03	1.18951E-03	1.26871E-03	1.34844E-03	1.42871E-03	1.50951E-03	1.59081E-03	1.67271E-03	1.75521E-03	1.83831E-03	1.92201E-03	1.21910E-03	2.71211E-03
2.79091E-03	2.77761E-03	2.69121E-03	2.54311E-03	2.34651E-03	2.12241E-03	1.89511E-03	1.65511E-03	1.42881E-03	1.21910E-03	1.02541E-03	8.4541E-04	6.8451E-04	5.4451E-04	4.2541E-04	3.2541E-04	2.4041E-04	1.7541E-04	1.21910E-03	1.21910E-03
1.02830E-03	8.59683E-04	7.12482E-04	5.86782E-04	4.80572E-04	3.90631E-04	3.15921E-04	2.54451E-04	2.04041E-04	1.63161E-04	1.28361E-04	9.89161E-05	7.66161E-05	5.90616E-05	4.45161E-05	3.30161E-05	2.40416E-05	1.75416E-05	1.21910E-03	1.21910E-03
1.29900E-04	1.03350E-04	8.18043E-05	6.46852E-05	5.12012E-05	4.03951E-05	3.18061E-05	2.50111E-05	1.96261E-05	1.54071E-05	1.18061E-05	8.8751E-06	6.751E-06	5.1201E-06	3.8751E-06	2.901E-06	2.201E-06	1.6261E-06	1.18061E-05	1.18061E-05
1.20840E-05	9.45354E-06	7.38933E-06	5.63060E-06	4.31092E-06	3.24751E-06	2.34401E-06	1.42810E-06	8.68013E-07	5.27722E-07	3.34401E-07	2.0401E-07	1.2810E-07	7.68013E-08	4.8013E-08	3.013E-08	1.8013E-08	1.013E-08	5.27722E-07	5.27722E-07
3.20611E-07	1.94451E-07	1.17920E-07	7.15332E-08	4.33922E-08	2.42782E-08	1.55521E-08	9.06261E-09	5.35521E-09	3.15521E-09	1.906261E-09	1.15521E-09	7.06261E-10	4.26261E-10	2.56261E-10	1.55521E-10	9.06261E-11	5.35521E-11	3.15521E-10	3.15521E-10
2.84851E-10	1.04790E-10	3.85531E-11	1.41821E-11	5.21772E-12	1.91931E-12	7.06123E-13	2.59761E-13	9.55493E-14	3.51541E-14	1.351541E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
1.29320E-14	7.52633E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00

TO BE CONTINUED

* << MICRO SCOPIC TRANSFER MATRICES TABLE >>
*
* LIBRARY NAME = J439B.BERMJ3.DATA
* CODE NUMBER = 36

PAGE 18 OF 20

GROUP I	EXIT	J=	GROUP	KK	KK **	KK = I + J - 1	5	6	7	8	9	10
	1	11	2	12	13	14	15	16	17	18	19	20
	21	31	32	33	34	35	36	37	38	39	40	40
	41	51	42	43	44	45	46	47	48	49	50	50
	61	71	52	53	54	55	56	57	58	59	60	60
	81	91	62	63	64	65	66	67	68	69	70	70
	101	111	72	73	74	75	76	77	78	79	80	80
	121	131	82	83	84	85	86	87	88	89	90	90
			92	93	94	95	96	97	98	99	100	100
			102	103	104	105	106	107	108	109	110	110
			112	113	114	115	116	117	118	119	120	120
			122	123	124	125						

35	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
	3.87343E-04	4.55454E-04	5.26464E-04	5.98565E-04	6.70186E-04	7.39876E-04	8.09042E-03	8.78208E-03	9.47374E-03	1.01654E-02	1.08934E-02	1.16214E-02	1.23494E-02
	2.12642E-03	2.06892E-03	1.96772E-03	1.83032E-03	1.66431E-03	1.48511E-03	1.30551E-03	1.13241E-03	9.69108E-04	8.19597E-04	6.74686E-04	5.34775E-04	4.00864E-04
	6.86786E-04	5.70565E-04	4.70134E-04	3.85103E-04	3.13963E-04	2.54272E-04	2.05002E-04	1.64621E-04	1.31691E-04	1.05041E-04	8.09930E-05	5.90820E-05	4.11710E-05
	8.34717E-05	6.62496E-05	5.24174E-05	4.13604E-05	3.26653E-05	2.57612E-05	2.02632E-05	1.59261E-05	1.24891E-05	9.79028E-06	7.49167E-06	5.79256E-06	4.49345E-06
	7.67917E-06	6.00615E-06	4.36257E-06	3.11334E-06	2.22233E-06	1.60212E-06	1.15871E-06	7.04946E-07	4.28314E-07	2.60382E-07	1.52451E-07	8.99540E-08	5.30629E-08
	1.58031E-07	9.58348E-08	5.81355E-08	3.52643E-08	2.15981E-08	1.26391E-08	7.33865E-09	4.65004E-09	2.85702E-09	1.71061E-09	1.01101E-09	5.90101E-10	3.50101E-10
	8.51647E-11	3.13323E-11	1.15226E-11	4.24044E-12	1.55981E-12	5.73865E-13	2.11112E-13	7.76536E-14	2.85702E-14	1.01101E-14	3.50101E-15	1.25010E-15	4.50101E-16
	6.11665E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
	2.10883E-04	3.32875E-04	4.09956E-04	4.62657E-04	5.14658E-04	5.66659E-04	6.18660E-04	6.70661E-04	7.22662E-04	7.74663E-04	8.26664E-04	8.78665E-04	9.30666E-04
	1.52332E-03	1.45842E-03	1.36192E-03	1.24452E-03	1.11572E-03	9.83845E-04	8.54803E-04	7.34551E-04	6.23369E-04	5.23588E-04	4.34406E-04	3.54224E-04	2.84042E-04
	4.35926E-04	3.59855E-04	2.95274E-04	2.40574E-04	1.95093E-04	1.57312E-04	1.26532E-04	1.01492E-04	8.10042E-05	6.44600E-05	5.14158E-05	4.03016E-05	3.01874E-05
	5.11568E-05	4.05046E-05	3.20305E-05	2.52474E-05	1.98843E-05	1.56702E-05	1.23212E-05	9.67405E-06	7.58502E-06	5.94189E-06	4.64876E-06	3.53734E-06	2.62592E-06
	4.65357E-06	3.48940E-06	2.79597E-06	2.19944E-06	1.75222E-06	1.39700E-06	1.08478E-06	8.37566E-07	6.38664E-07	4.99762E-07	3.88660E-07	2.97558E-07	2.26456E-07
	7.40411E-08	4.49147E-08	2.72454E-08	1.65454E-08	9.76505E-09	5.92555E-09	3.62162E-09	2.20733E-09	1.32162E-09	7.88533E-10	4.86187E-10	2.94741E-10	1.78853E-10
	2.42074E-11	8.90454E-12	3.27615E-12	1.20512E-12	4.43357E-13	1.63102E-13	5.99949E-14	2.20733E-14	8.11982E-15	2.94741E-15	1.05010E-15	3.80101E-16	1.35010E-16
	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00

TO BE CONTINUED

 * << MICRO SCOPIC TRANSFER MATRICES TABLE >>
 *
 * LIBRARY NAME = J439B.BERMJ3.DATA
 * CODE NUMBER = 36

 PAGE 20 OF 20

GROUP I	J=	EXIT	GROUP	**	KK	**	KK	= I + J - 1	5	6	7	8	9	10
39	1	11	12	13	14	15	16	17	18	19	20	21	22	23
	21	22	23	24	25	26	27	28	29	30	31	32	33	34
	31	32	33	34	35	36	37	38	39	40	41	42	43	44
	41	42	43	44	45	46	47	48	49	50	51	52	53	54
	51	52	53	54	55	56	57	58	59	60	61	62	63	64
	61	62	63	64	65	66	67	68	69	70	71	72	73	74
	71	72	73	74	75	76	77	78	79	80	81	82	83	84
	81	82	83	84	85	86	87	88	89	90	91	92	93	94
	91	92	93	94	95	96	97	98	99	100	101	102	103	104
	101	102	103	104	105	106	107	108	109	110	111	112	113	114
	111	112	113	114	115	116	117	118	119	120	121	122	123	124
	121	122	123	124	125									

elastic

 * << LEGENDRE COEFFICIENT TABLE >> *
 * * * * *
 * LIBRARY NAME = J439B.BERMJ3.DATA *
 * CODE NUMBER = 36 *
 * LEVEL = 0 *
 * G-VALUE = 0.00000E+00 *

GROUP NO

GROUP NO	SCATTERING ORDER	LEGENDRE COEFFICIENT
1	7.71890E-01	9 7.77370E-01 5.40730E-01 3.29120E-01 1.57000E-01 5.31600E-02 1.64550E-02 4.18760E-03
2	7.86760E-01	9 7.74350E-01 5.36670E-01 3.24940E-01 1.53200E-01 5.07770E-02 1.55360E-02 3.90280E-03
3	8.00420E-01	9 7.71270E-01 5.32660E-01 3.20830E-01 1.49520E-01 4.85320E-02 1.47000E-02 3.65270E-03
4	8.13660E-01	9 7.68140E-01 5.28690E-01 3.16770E-01 1.45940E-01 4.63900E-02 1.39230E-02 3.42790E-03
5	8.26990E-01	9 7.65060E-01 5.24780E-01 3.12780E-01 1.42420E-01 4.42830E-02 1.31600E-02 3.20690E-03
6	8.40100E-01	9 7.62030E-01 5.20930E-01 3.08850E-01 1.38950E-01 4.22110E-02 1.24090E-02 2.98950E-03
7	8.53020E-01	9 7.57830E-01 5.16260E-01 3.04040E-01 1.34820E-01 4.02470E-02 1.17270E-02 2.72020E-03
8	8.65750E-01	9 7.52210E-01 5.10600E-01 2.98160E-01 1.29890E-01 3.84060E-02 1.11250E-02 2.38880E-03
9	8.78300E-01	9 7.46670E-01 5.05020E-01 2.92370E-01 1.25020E-01 3.65920E-02 1.05330E-02 2.06220E-03
10	8.92210E-01	9 7.41220E-01 4.99530E-01 2.86670E-01 1.20230E-01 3.48060E-02 9.94880E-03 1.74060E-03
11	9.04980E-01	9 7.35950E-01 4.94230E-01 2.81230E-01 1.15700E-01 3.31240E-02 9.40940E-03 1.44490E-03
12	9.09250E-01	7 7.32670E-01 4.91180E-01 2.79260E-01 1.14730E-01 3.29750E-02 9.57520E-03 1.56790E-03
13	9.12740E-01	7 7.30170E-01 4.89010E-01 2.78630E-01 1.15140E-01 3.34170E-02 1.00100E-02 1.85070E-03
14	9.16230E-01	7 7.27720E-01 4.86880E-01 2.78020E-01 1.15540E-01 3.38520E-02 1.04390E-02 2.12880E-03
15	9.19670E-01	7 7.25300E-01 4.84780E-01 2.77420E-01 1.15940E-01 3.42800E-02 1.08610E-02 2.40300E-03
16	9.23640E-01	8 7.22860E-01 4.82840E-01 2.76840E-01 1.16410E-01 3.48210E-02 1.13810E-02 2.70760E-03
17	9.28790E-01	8 7.20100E-01 4.81650E-01 2.76410E-01 1.17290E-01 3.60640E-02 1.25190E-02 3.21450E-03
18	9.33900E-01	8 7.17330E-01 4.80600E-01 2.76000E-01 1.18240E-01 3.74090E-02 1.37460E-02 3.74860E-03
19	9.38930E-01	8 7.14590E-01 4.79570E-01 2.75600E-01 1.19170E-01 3.87330E-02 1.49540E-02 4.27460E-03
20	9.43880E-01	8 7.11900E-01 4.78560E-01 2.75200E-01 1.20090E-01 4.00370E-02 1.61430E-02 4.79240E-03
21	9.47840E-01	8 7.08600E-01 4.76150E-01 2.72910E-01 1.19010E-01 3.96650E-02 1.62520E-02 4.76210E-03
22	9.48810E-01	8 7.04340E-01 4.71610E-01 2.67760E-01 1.14900E-01 3.67570E-02 1.47250E-02 3.90230E-03
23	9.49540E-01	8 7.00140E-01 4.67110E-01 2.62650E-01 1.10830E-01 3.38670E-02 1.32040E-02 3.04710E-03
24	9.50270E-01	8 6.96000E-01 4.62680E-01 2.57610E-01 1.06800E-01 3.10160E-02 1.17050E-02 2.20360E-03
25	9.50980E-01	8 6.91930E-01 4.58330E-01 2.52650E-01 1.02850E-01 2.82130E-02 1.02300E-02 1.37430E-03

TO CONTINUED

 * << LEGENDRE COEFFICIENT TABLE >> *
 * LIBRARY NAME = J439B.BERMJ3.DATA *
 * CODE NUMBER = 36 *
 * LEVEL = 0 Q-VALUE = 0.00000E+00 *

 PAGE 2 OF 4

NO	SCATTERING	ORDER	LEGENDRE COEFFICIENT
26	9.52050E-01	8	6.87930E-01 4.54040E-01 2.47780E-01 9.89600E-02 2.54570E-02 8.78060E-03 5.58710E-04
27	9.54410E-01	8	1.52990E-04 6.83870E-01 4.49930E-01 2.43560E-01 9.58550E-02 2.35040E-02 7.91480E-03 2.67650E-04
28	9.56860E-01	7	4.04450E-06 6.79670E-01 4.46120E-01 2.40600E-01 9.42660E-02 2.31130E-02 8.18890E-03 1.00280E-03
29	9.59270E-01	7	6.75540E-01 4.42380E-01 2.37720E-01 9.27470E-02 2.27720E-02 8.48950E-03 1.75350E-03
30	9.62440E-01	7	6.71460E-01 4.38680E-01 2.34880E-01 9.12450E-02 2.24350E-02 8.78650E-03 2.49530E-03
31	9.65970E-01	7	6.67440E-01 4.35050E-01 2.32080E-01 8.97670E-02 2.21030E-02 9.07900E-03 3.22550E-03
32	9.69430E-01	7	6.63500E-01 4.31480E-01 2.29330E-01 8.83160E-02 2.17770E-02 9.36610E-03 3.94250E-03
33	9.87420E-01	7	6.52330E-01 4.22580E-01 2.21040E-01 8.26600E-02 1.90640E-02 8.21490E-03 3.26680E-03
34	1.02010E+00	7	6.34270E-01 4.08970E-01 2.07530E-01 7.28990E-02 1.58260E-02 5.34920E-03 7.58890E-04
35	1.04870E+00	7	6.16790E-01 3.97750E-01 1.97990E-01 6.89540E-02 1.22550E-02 4.89890E-03 8.56880E-04
36	1.07400E+00	7	6.00150E-01 3.87840E-01 1.90320E-01 6.7320E-02 1.21410E-02 5.38900E-03 1.94930E-03
37	1.09520E+00	7	5.87040E-01 3.81150E-01 1.80680E-01 6.60450E-02 9.96460E-03 4.80200E-03 2.37850E-03
38	1.11660E+00	4	5.78640E-01 3.74170E-01 1.60840E-01 5.68010E-02
39	1.14850E+00	4	5.46390E-01 3.44620E-01 1.47130E-01 4.88440E-02
40	1.18010E+00	4	5.26280E-01 3.33450E-01 1.36290E-01 4.19100E-02
41	1.21080E+00	4	4.99470E-01 3.23230E-01 1.25060E-01 3.95820E-02
42	1.23810E+00	4	4.74660E-01 3.10180E-01 1.14060E-01 3.71560E-02
43	1.26090E+00	4	4.56290E-01 3.00810E-01 1.07000E-01 3.80170E-02
44	1.28850E+00	4	4.35450E-01 2.86610E-01 9.96770E-02 4.08870E-02
45	1.31780E+00	4	4.12120E-01 2.67190E-01 8.0110E-02 2.96030E-02
46	1.34220E+00	4	3.73720E-01 2.50820E-01 7.01930E-02 3.01780E-02
47	1.36380E+00	4	3.17860E-01 2.17750E-01 5.48470E-02 2.69820E-02
48	1.39750E+00	4	2.68180E-01 1.93660E-01 4.89160E-02 2.51920E-02
49	1.41140E+00	4	2.22240E-01 1.72110E-01 4.42930E-02 2.37800E-02
50	1.43530E+00	4	1.78960E-01 1.51810E-01 3.99390E-02 2.24500E-02
51	1.45590E+00	4	1.38410E-01 1.32790E-01 3.58590E-02 2.12040E-02
52	1.45280E+00	4	1.05100E-01 1.13270E-01 2.97830E-02 1.69880E-02
53	1.42780E+00	4	8.59720E-02 8.48270E-02 2.57250E-02 1.66700E-02
54	1.39810E+00	4	7.35630E-02 7.41310E-02 1.80460E-02 1.61290E-02
55	1.35250E+00	4	7.59840E-02 5.65100E-02 8.59310E-03 7.12250E-03
56	1.28140E+00	4	9.26500E-02 4.55810E-02 3.65070E-03 2.20400E-03
57	1.22340E+00	4	8.85130E-02 3.84940E-02 2.97330E-03 4.65840E-03
58	1.17790E+00	4	8.61930E-02 2.74140E-02 2.77330E-03 6.22990E-03
59	1.13830E+00	4	8.01450E-02 1.04930E-02 3.87460E-04 7.23490E-04
60	1.10550E+00	4	8.93050E-02 1.88180E-03 4.43600E-03 2.16180E-03
61	1.05990E+00	4	9.54020E-02 5.26400E-03 3.32700E-03 4.10590E-03
62	1.02270E+00	4	1.00780E-01 1.03050E-02 5.49440E-05 2.56200E-04
63	1.00550E+00	2	1.26480E-01 1.16770E-02
64	1.01330E+00	2	1.62130E-01 1.29980E-02
65	1.05860E+00	2	1.76760E-01 2.58490E-02
66	1.09930E+00	2	1.96340E-01 2.59540E-02
67	1.14460E+00	2	1.86030E-01 3.44920E-02
68	1.20890E+00	2	1.65530E-01 3.75850E-02

TO CONTINUED

 * << LEGENDRE COEFFICIENT TABLE >> *
 * * * * *
 * LIBRARY NAME = J439B.BERMJ3.DATA *
 * CODE NUMBER = 36 *
 * LEVEL = 0 Q-VALUE = 0.00000E+00 *

NO	SCATTERING	ORDER	LEGENDRE COEFFICIENT
69	1.29940E+00	2	1.68160E-01 4.87730E-02
70	1.42860E+00	4	1.38650E-01 5.80640E-02 3.25810E-04 2.56080E-06
71	1.61960E+00	4	1.14500E-01 7.48730E-02 6.83810E-04 4.90210E-06
72	1.92610E+00	4	1.17760E-01 8.04500E-02 5.02860E-04 3.02020E-06
73	2.46370E+00	4	1.15390E-01 8.71260E-02 3.49330E-04 1.76810E-06
74	3.49190E+00	4	1.04300E-01 9.42720E-02 2.16810E-04 9.34180E-07
75	5.49960E+00	4	8.06420E-02 1.00350E-01 1.02330E-04 3.86070E-07
76	7.61400E+00	3	4.30850E-02 1.02530E-01 1.03730E-05
77	6.06000E+00	4	-2.66610E-03 9.84880E-02-5.20400E-05-1.15670E-07
78	3.32810E+00	4	-5.13930E-02 8.68400E-02-8.56790E-05-1.74890E-07
79	1.91890E+00	4	-9.02710E-02 6.91320E-02-9.08890E-05-1.61600E-07
80	1.31270E+00	4	-1.09660E-01 5.02850E-02-7.71150E-05-1.18380E-07
81	1.02960E+00	3	-1.12010E-01 3.40710E-02-5.75330E-05
82	9.02490E-01	3	-1.04820E-01 2.33890E-02-6.03320E-05
83	8.31310E-01	3	-9.38800E-02 1.59030E-02-2.73110E-05
84	7.91130E-01	3	-8.23570E-02 1.09580E-02-1.82830E-05
85	7.66980E-01	3	-7.15430E-02 7.63380E-03-1.21690E-05
86	7.5280E-01	3	-6.18760E-02 5.38080E-03-8.09330E-06
87	7.42810E-01	3	-5.34540E-02 3.84270E-03-5.40290E-06
88	7.37020E-01	3	-4.62410E-02 2.77960E-03-3.62370E-06
89	7.33360E-01	3	-4.00590E-02 2.01920E-03-2.41170E-06
90	7.31580E-01	3	-3.68020E-02 1.50190E-03-1.65170E-06
91	7.30140E-01	3	-3.02280E-02 1.10510E-03-1.09880E-06
94	7.29180E-01	3	-2.62730E-02 8.34890E-04-7.68230E-07
93	7.29290E-01	3	-2.28040E-02 6.09680E-04-4.98950E-07
95	7.29090E-01	3	-1.98360E-02 4.70020E-04-3.59670E-07
96	7.29210E-01	3	-1.49410E-02 2.55800E-04-1.57070E-07
97	7.30010E-01	3	-1.23020E-02 1.80790E-04-1.00360E-07
98	7.30910E-01	2	-9.51240E-03 1.13120E-04
99	7.31610E-01	2	-7.33920E-03 6.15830E-05
100	7.32150E-01	2	-5.66740E-03 3.47100E-05
101	7.32570E-01	2	-4.39020E-03 2.07200E-05
102	7.32900E-01	2	-3.40870E-03 1.24710E-05
103	7.33160E-01	2	-2.65030E-03 7.53730E-06
104	7.33360E-01	2	-2.05960E-03 4.55570E-06
105	7.33690E-01	2	-1.60260E-03 2.80230E-06
106	7.34100E-01	2	-1.24750E-03 1.70940E-06
107	7.34420E-01	2	-9.71200E-04 1.10640E-06
108	7.34680E-01	2	-7.56000E-04 6.40620E-07
109	7.34950E-01	2	-5.23530E-04 3.65020E-07
110	7.35190E-01	2	-3.17520E-04 2.01750E-07
111	7.35330E-01	2	-1.92580E-04 1.02730E-07
112	7.35420E-01	1	-1.16790E-04
113	7.35480E-01	1	-7.08270E-05

TO CONTINUED

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*****
*
* << LEGENDRE COEFFICIENT TABLE >>
*
* LIBRARY NAME = J439B.BERMJ3.DATA
* CODE NUMBER = 36
* LEVEL = 0 Q-VALUE = 0.00000E+00
*****

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PAGE 4 OF 4

NO	SCATTERING	ORDER	LEGENDRE COEFFICIENT
114	7.35510E-01	1	-4.29590E-05
115	7.35530E-01	1	-2.60580E-05
116	7.35540E-01	1	-1.58070E-05
117	7.35550E-01	1	-9.58860E-06
118	7.35550E-01	1	-5.81690E-06
119	7.35560E-01	1	-3.52820E-06
120	7.35560E-01	1	-2.14000E-06
121	7.35660E-01	1	-1.29800E-06
122	7.36690E-01	1	-7.87310E-07
123	7.37550E-01	1	-4.77560E-07
124	7.39330E-01	1	-2.89620E-07
125	7.96020E-01	0	

inelastic

 * << LEGENDRE COEFFICIENT TABLE >> *
 * LIBRARY NAME = J439B.BERMJ3.DATA *
 * CODE NUMBER = 36 *
 * LEVEL = 1 Q-VALUE = 1.50000E+06 *

PAGE 1 OF 2

NO	SCATTERING	ORDER	LEGENDRE COEFFICIENT
1	6.59780E-05	1	2.19650E-01
2	6.82930E-05	1	2.17540E-01
3	7.08630E-05	1	2.15460E-01
4	7.36980E-05	1	2.13410E-01
5	7.66450E-05	1	2.11390E-01
6	7.96710E-05	1	2.09410E-01
7	8.28690E-05	1	2.07450E-01
8	8.61520E-05	1	2.05530E-01
9	8.96480E-05	1	2.03630E-01
10	9.32160E-05	1	2.01770E-01
11	9.69550E-05	1	1.99670E-01
12	1.01590E-04	1	1.96320E-01
13	1.06260E-04	1	1.92830E-01
14	1.1110E-04	1	1.89400E-01
15	1.16300E-04	1	1.86020E-01
16	1.21580E-04	1	1.82690E-01
17	1.27280E-04	1	1.79420E-01
18	1.33100E-04	1	1.76190E-01
19	1.39200E-04	1	1.73020E-01
20	1.45580E-04	1	1.69890E-01
21	1.52610E-04	1	1.66810E-01
22	1.61300E-04	1	1.63780E-01
23	1.70280E-04	1	1.60800E-01
24	1.79970E-04	1	1.57860E-01
25	1.90010E-04	1	1.54970E-01
26	2.00110E-04	1	1.52130E-01
27	2.10880E-04	1	1.49330E-01
28	2.21530E-04	1	1.46570E-01
29	2.32020E-04	1	1.43860E-01
30	2.43750E-04	1	1.41180E-01
31	2.56000E-04	1	1.38540E-01
32	2.68020E-04	1	1.35950E-01
33	2.95510E-04	1	1.29560E-01
34	3.43280E-04	1	1.19980E-01
35	4.03230E-04	1	1.10970E-01
36	4.77050E-04	1	1.02500E-01
37	5.73400E-04	1	9.45520E-02
38	6.94900E-04	1	8.70950E-02
39	8.29000E-04	1	8.00950E-02
40	9.77070E-04	1	7.35090E-02
41	1.13750E-03	1	6.73330E-02
42	1.31590E-03	1	6.15210E-02
43	1.52610E-03	1	5.60540E-02
44	1.76000E-03	1	5.09400E-02
45	1.98880E-03	1	4.61170E-02

TO CONTINUED

 * << LEGENDRE COEFFICIENT TABLE >> *
 * LIBRARY NAME = J439B.BERMJ3.DATA *
 * CODE NUMBER = 36 *
 * LEVEL = 1 Q-VALUE = 1.50000E+06 *

 PAGE 2 OF 2

NO SCATTERING ORDER LEGENDRE COEFFICIENT

46	2.31940E-03	1	4.15830E-02
47	2.67350E-03	1	3.73420E-02
48	2.83600E-03	1	3.33760E-02
49	2.91190E-03	1	2.96270E-02
50	2.69230E-03	1	2.61410E-02
51	2.34920E-03	1	2.28260E-02
52	2.37210E-03	1	1.95920E-02
53	3.58580E-03	1	1.66610E-02
54	4.89700E-03	1	1.39450E-02
55	1.62800E-02	1	1.10550E-02
56	3.58860E-02	1	9.00830E-03
57	2.83800E-02	1	6.77520E-03
58	1.99430E-02	1	4.65100E-03
59	1.13490E-02	1	2.69200E-03
60	3.06850E-03	1	1.06520E-03

 * << LEGENDRE COEFFICIENT TABLE >> *
 * * * * *
 * LIBRARY NAME = J439B.BERMJ3.DATA *
 * CODE NUMBER = 36 *
 * LEVEL = 2 Q-VALUE = 2.00000E+06 *

NO	SCATTERING	ORDER	LEGENDRE COEFFICIENT
1	1.43640E-03	1	2.19650E-01
2	1.48640E-03	1	2.17540E-01
3	1.54190E-03	1	2.15460E-01
4	1.60320E-03	1	2.13410E-01
5	1.66880E-03	1	2.11390E-01
6	1.73200E-03	1	2.09410E-01
7	1.80090E-03	1	2.07450E-01
8	1.87170E-03	1	2.05530E-01
9	1.94700E-03	1	2.03630E-01
10	2.02390E-03	1	2.01770E-01
11	2.10420E-03	1	1.99650E-01
12	2.20320E-03	1	1.96130E-01
13	2.30320E-03	1	1.92470E-01
14	2.41100E-03	1	1.88870E-01
15	2.52160E-03	1	1.85320E-01
16	2.63420E-03	1	1.81830E-01
17	2.75650E-03	1	1.78390E-01
18	2.88150E-03	1	1.75000E-01
19	3.01220E-03	1	1.71670E-01
20	3.14890E-03	1	1.68380E-01
21	3.29970E-03	1	1.65150E-01
22	3.48600E-03	1	1.61970E-01
23	3.67860E-03	1	1.58840E-01
24	3.88600E-03	1	1.55750E-01
25	4.10090E-03	1	1.52720E-01
26	4.31690E-03	1	1.49740E-01
27	4.54680E-03	1	1.46790E-01
28	4.77400E-03	1	1.43890E-01
29	4.99800E-03	1	1.41050E-01
30	5.24770E-03	1	1.38230E-01
31	5.50830E-03	1	1.35460E-01
32	5.76420E-03	1	1.32750E-01
33	6.34620E-03	1	1.26040E-01
34	7.35390E-03	1	1.15970E-01
35	8.61450E-03	1	1.06510E-01
36	1.01600E-02	1	9.76240E-02
37	1.21700E-02	1	8.92760E-02
38	1.46740E-02	1	8.14460E-02
39	1.74500E-02	1	7.40950E-02
40	2.04710E-02	1	6.71800E-02
41	2.37050E-02	1	6.06950E-02
42	2.72400E-02	1	5.45930E-02
43	3.13560E-02	1	4.88520E-02
44	3.58450E-02	1	4.34830E-02
45	4.00990E-02	1	3.84200E-02

TO CONTINUED

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*****
*
* << LEGENDRE COEFFICIENT TABLE >>
*
* LIBRARY NAME = J439B.BERMJ3.DATA
* CODE NUMBER = 36
* LEVEL = 2 Q-VALUE = 2.00000E+06
*****

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NO	SCATTERING	ORDER	LENDRE COEFFICIENT
46	4.61170E-02	1	3.36580E-02
47	5.24340E-02	1	2.92060E-02
48	5.44250E-02	1	2.50430E-02
49	5.46600E-02	1	2.11050E-02
50	4.89820E-02	1	1.74490E-02
51	4.08750E-02	1	1.39720E-02
52	4.85470E-02	1	1.04640E-02
53	5.54840E-02	1	7.60800E-03
54	4.86780E-02	1	4.72370E-03
55	3.05040E-02	1	2.25530E-03
56	1.44290E-03	1	4.54250E-04

 * << LEGENDRE COEFFICIENT TABLE >> *
 * * * * *
 * LIBRARY NAME = J4398.BERMJ3-DATA *
 * CODE NUMBER = 36 *
 * LEVEL = 3 Q-VALUE = 2.18500E+06 *

NO	SCATTERING	ORDER	LEGENDRE COEFFICIENT
1	6.67120E-02	3	3.06430E-01 9.02280E-02 3.42440E-04
2	6.73560E-02	3	2.99370E-01 8.91120E-02 1.13330E-04
3	6.82910E-02	3	2.92480E-01 8.79260E-02 4.91160E-04
4	6.94340E-02	3	2.85750E-01 8.66950E-02 8.11720E-04
5	7.05580E-02	3	2.79140E-01 8.54850E-02 1.12700E-03
6	7.16630E-02	3	2.72630E-01 8.42940E-02 1.43720E-03
7	7.27520E-02	3	2.63760E-01 7.77780E-02 1.44570E-03
8	7.38250E-02	3	2.52060E-01 6.49310E-02 1.09670E-03
9	7.48820E-02	3	2.40540E-01 5.22620E-02 7.52050E-04
10	7.59220E-02	3	2.29190E-01 3.97880E-02 4.12730E-04
11	7.70260E-02	3	2.18410E-01 2.78350E-02 9.00120E-05
12	7.85240E-02	2	2.15640E-01 2.26470E-02
13	8.00560E-02	2	2.15970E-01 2.01030E-02
14	8.15640E-02	2	2.16290E-01 1.76010E-02
15	8.30500E-02	2	2.16610E-01 1.51340E-02
16	8.45140E-02	2	2.17480E-01 1.31540E-02
17	8.59530E-02	2	2.21630E-01 1.39170E-02
18	8.73710E-02	2	2.26280E-01 1.51200E-02
19	8.87670E-02	2	2.30850E-01 1.63050E-02
20	9.01420E-02	2	2.35350E-01 1.74720E-02
21	9.15480E-02	4	2.32480E-01 1.42940E-02 4.91350E-03 9.55390E-04
22	9.31020E-02	4	2.18470E-01 4.54650E-03 1.72670E-02 3.35750E-03
23	9.46430E-02	4	2.04570E-01 5.11640E-03 2.95040E-02 5.73680E-03
24	9.61650E-02	4	1.90850E-01 1.46470E-02 4.15720E-02 8.08350E-03
25	9.76570E-02	4	1.77370E-01 2.40170E-02 5.34390E-02 1.03910E-02
26	9.91270E-02	4	1.64110E-01 3.32310E-02 6.51070E-02 1.26600E-02
27	1.00580E-01	4	1.54050E-01 3.72620E-02 6.87390E-02 1.33660E-02
28	1.02010E-01	4	1.50170E-01 3.12000E-02 5.67060E-02 1.10260E-02
29	1.03410E-01	4	1.46530E-01 2.49660E-02 4.44520E-02 8.64340E-03
30	1.04790E-01	4	1.42940E-01 1.88070E-02 3.23430E-02 6.28900E-03
31	1.06160E-01	4	1.39400E-01 1.27420E-02 2.04220E-02 3.97090E-03
32	1.07500E-01	4	1.35920E-01 6.78740E-03 8.71700E-03 1.69500E-03
33	1.12680E-01	2	1.41520E-01 7.08260E-03 9.01490E-05 1.75290E-05
34	1.21360E-01	2	1.58470E-01 1.69020E-02
35	1.29520E-01	2	1.60550E-01 2.09720E-02
36	1.37470E-01	2	1.56940E-01 2.27050E-02
37	1.47230E-01	2	1.53010E-01 2.43070E-02
38	1.57090E-01	2	1.42710E-01 2.54910E-02
39	1.69660E-01	2	1.31060E-01 2.65110E-02
40	1.82620E-01	2	1.20150E-01 2.74660E-02
41	1.97980E-01	2	1.09790E-01 2.85770E-02
42	2.18290E-01	2	9.48170E-02 4.68670E-02
43	2.37510E-01	2	7.75320E-02 7.45670E-02
44	2.54490E-01	2	6.18050E-02 9.80710E-02
45	2.68970E-01	2	5.25470E-02 9.25960E-02

TO CONTINUED

 * << LEGENDRE COEFFICIENT TABLE >>
 *
 * LIBRARY NAME = J439B.BERMJ3.DATA
 * CODE NUMBER = 36
 * LEVEL = 3 Q-VALUE = 2.18500E+06

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NO	SCATTERING	ORDER	LEGENDRE COEFFICIENT
46	2.82350E-01	2	4.53590E-02-7.99280E-02
47	2.95230E-01	2	3.86050E-02-6.80280E-02
48	3.04860E-01	2	3.22700E-02-5.68640E-02
49	3.00540E-01	2	2.63260E-02-4.63910E-02
50	2.87910E-01	2	2.07440E-02-3.65530E-02
51	2.48240E-01	2	1.55630E-02-2.74250E-02
52	1.77760E-01	2	1.06750E-02-1.88110E-02
53	1.01250E-01	2	6.14050E-03-1.08200E-02
54	2.67070E-02	2	2.40970E-03-4.24620E-03

 * << LEGENDRE COEFFICIENT TABLE >>
 *
 * LIBRARY NAME = J439B.BERMJ3.DATA
 * CODE NUMBER = 36
 * LEVEL = 4 Q-VALUE = 2.50000E+06

NO	SCATTERING	ORDER	LEGENDRE	COEFFICIENT
1	7.25550E-03	1	2.19650E-01	
2	7.50510E-03	1	2.17540E-01	
3	7.78700E-03	1	2.15460E-01	
4	8.09150E-03	1	2.13410E-01	
5	8.40580E-03	1	2.11390E-01	
6	8.73170E-03	1	2.09410E-01	
7	9.07540E-03	1	2.07450E-01	
8	9.42800E-03	1	2.05530E-01	
9	9.80270E-03	1	2.03630E-01	
10	1.01850E-02	1	2.01770E-01	
11	1.05650E-02	1	1.99620E-01	
12	1.09550E-02	1	1.95930E-01	
13	1.13420E-02	1	1.92080E-01	
14	1.17500E-02	1	1.88290E-01	
15	1.21650E-02	1	1.84550E-01	
16	1.25910E-02	1	1.80870E-01	
17	1.30440E-02	1	1.77250E-01	
18	1.34930E-02	1	1.73690E-01	
19	1.39640E-02	1	1.70180E-01	
20	1.44530E-02	1	1.66720E-01	
21	1.49590E-02	1	1.63320E-01	
22	1.54840E-02	1	1.59970E-01	
23	1.60300E-02	1	1.56670E-01	
24	1.71430E-02	1	1.53430E-01	
25	1.79130E-02	1	1.50230E-01	
26	1.86790E-02	1	1.47090E-01	
27	1.94670E-02	1	1.43990E-01	
28	2.02450E-02	1	1.40940E-01	
29	2.10110E-02	1	1.37940E-01	
30	2.18440E-02	1	1.34980E-01	
31	2.27050E-02	1	1.32070E-01	
32	2.35900E-02	1	1.29210E-01	
33	2.53350E-02	1	1.22180E-01	
34	2.82830E-02	1	1.11580E-01	
35	3.19440E-02	1	1.01610E-01	
36	3.63370E-02	1	9.22580E-02	
37	4.19880E-02	1	8.34670E-02	
38	4.88460E-02	1	7.52220E-02	
39	5.60720E-02	1	6.74820E-02	
40	6.34960E-02	1	6.02040E-02	
41	7.10080E-02	1	5.33760E-02	
42	7.86640E-02	1	4.69510E-02	
43	8.72060E-02	1	4.09080E-02	
44	9.57670E-02	1	3.52560E-02	
45	1.02710E-01	1	2.99260E-02	

TO CONTINUED

```

*****
*
* << LEGENDRE COEFFICIENT TABLE >>
*
* LIBRARY NAME = J439B.BERMJ3.DATA
* CODE NUMBER = 36
* LEVEL = 4 Q-VALUE = 2.50000E+06
*****

```

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NO SCATTERING ORDER LEGENDRE COEFFICIENT

46	1.12080E-01	1	2.49150E-02
47	1.22120E-01	1	2.02160E-02
48	1.31210E-01	1	1.58050E-02
49	1.38010E-01	1	1.16750E-02
50	1.05820E-01	1	7.92350E-03
51	5.92990E-02	1	4.33410E-03
52	1.41040E-02	1	1.54280E-03

 * << LEGENDRE COEFFICIENT TABLE >> *
 * LIBRARY NAME = J439B.BERMJ3.DATA *
 * CODE NUMBER = 36 *
 * LEVEL = 5 g-VALUE = 3.00000E+06 *

PAGE 1 OF 2

NO SCATTERING ORDER LEGENDRE COEFFICIENT

1	1.13270E-02	1	2.19650E-01
2	1.17420E-02	1	2.17540E-01
3	1.21470E-02	1	2.15460E-01
4	1.26160E-02	1	2.13410E-01
5	1.31060E-02	1	2.11390E-01
6	1.36100E-02	1	2.09410E-01
7	1.41300E-02	1	2.07450E-01
8	1.46720E-02	1	2.05530E-01
9	1.52470E-02	1	2.03630E-01
10	1.58330E-02	1	2.01770E-01
11	1.64330E-02	1	1.99590E-01
12	1.70010E-02	1	1.95710E-01
13	1.75820E-02	1	1.91640E-01
14	1.81940E-02	1	1.87640E-01
15	1.88150E-02	1	1.83690E-01
16	1.94510E-02	1	1.79810E-01
17	2.01270E-02	1	1.75990E-01
18	2.07970E-02	1	1.72230E-01
19	2.14960E-02	1	1.68520E-01
20	2.22200E-02	1	1.64870E-01
21	2.30250E-02	1	1.61280E-01
22	2.40520E-02	1	1.57740E-01
23	2.51070E-02	1	1.54270E-01
24	2.62200E-02	1	1.50840E-01
25	2.73600E-02	1	1.47460E-01
26	2.84910E-02	1	1.44150E-01
27	2.96480E-02	1	1.40870E-01
28	3.07880E-02	1	1.37650E-01
29	3.19110E-02	1	1.34490E-01
30	3.31260E-02	1	1.31370E-01
31	3.43770E-02	1	1.28290E-01
32	3.56060E-02	1	1.25270E-01
33	3.81470E-02	1	1.17860E-01
34	4.22980E-02	1	1.06670E-01
35	4.74150E-02	1	9.61500E-02
36	5.34900E-02	1	8.62720E-02
37	6.12340E-02	1	7.69930E-02
38	7.04840E-02	1	6.82890E-02
39	7.99170E-02	1	6.01190E-02
40	8.92990E-02	1	5.24370E-02
41	9.83040E-02	1	4.52300E-02
42	1.06800E-01	1	3.84490E-02
43	1.15460E-01	1	3.20730E-02
44	1.22710E-01	1	2.61100E-02
45	1.26720E-01	1	2.04790E-02

TO CONTINUED

```

*****
*
* << LEGENDRE COEFFICIENT TABLE >>
*
* LIBRARY NAME = J439B.BERMJ3.DATA
* CODE NUMBER = 36
* LEVEL = 5 Q-VALUE = 3.00000E+06
*
*****

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PAGE 2 OF 2

NO	SCATTERING	ORDER	LENDRE COEFFICIENT
46	1.45960E-01	1	1.51380E-02
47	1.52360E-01	1	1.03500E-02
48	8.70570E-02	1	5.89700E-03
49	1.98930E-02	1	2.22290E-03

 * << LEGENDRE COEFFICIENT TABLE >>
 *
 * LIBRARY NAME = J439B.BERMJ3.DATA
 * CODE NUMBER = 36
 * LEVEL = 6 Q-VALUE = 3.50000E+06

PAGE 1 OF 2

NO	SCATTERING	ORDER	LEGENDRE	COEFFICIENT
1	1.49140E-02	1	2.19650E-01	
2	1.54140E-02	1	2.17540E-01	
3	1.59780E-02	1	2.15440E-01	
4	1.65870E-02	1	2.13410E-01	
5	1.72210E-02	1	2.11390E-01	
6	1.78750E-02	1	2.09410E-01	
7	1.85480E-02	1	2.07460E-01	
8	1.92480E-02	1	2.05530E-01	
9	1.99940E-02	1	2.03630E-01	
10	2.07560E-02	1	2.01770E-01	
11	2.15050E-02	1	1.99550E-01	
12	2.22430E-02	1	1.95450E-01	
13	2.29700E-02	1	1.91150E-01	
14	2.37360E-02	1	1.86910E-01	
15	2.45150E-02	1	1.82730E-01	
16	2.53100E-02	1	1.78620E-01	
17	2.61530E-02	1	1.74570E-01	
18	2.69870E-02	1	1.70590E-01	
19	2.78560E-02	1	1.66670E-01	
20	2.87540E-02	1	1.62800E-01	
21	2.97520E-02	1	1.59000E-01	
22	3.10330E-02	1	1.55250E-01	
23	3.23670E-02	1	1.51570E-01	
24	3.37270E-02	1	1.47940E-01	
25	3.51370E-02	1	1.44370E-01	
26	3.65340E-02	1	1.40860E-01	
27	3.79490E-02	1	1.37390E-01	
28	3.93420E-02	1	1.33980E-01	
29	4.07130E-02	1	1.30630E-01	
30	4.21870E-02	1	1.27320E-01	
31	4.36990E-02	1	1.24070E-01	
32	4.51840E-02	1	1.20870E-01	
33	4.61760E-02	1	1.13030E-01	
34	5.29820E-02	1	1.01180E-01	
35	5.88480E-02	1	9.00430E-02	
36	6.56960E-02	1	7.95850E-02	
37	7.43080E-02	1	6.97590E-02	
38	8.43430E-02	1	6.05430E-02	
39	9.40820E-02	1	5.18920E-02	
40	1.02990E-01	1	4.37630E-02	
41	1.10600E-01	1	3.61340E-02	
42	1.16110E-01	1	2.89570E-02	
43	1.19790E-01	1	2.22150E-02	
44	1.30160E-01	1	1.58060E-02	
45	1.24480E-01	1	1.01290E-02	

TO CONTINUED

```
*****  
* << LEGENDRE COEFFICIENT TABLE >>  
*  
* LIBRARY NAME = J439B.BERMJ3.DATA  
* CODE NUMBER = 36  
* LEVEL = 6 Q-VALUE = 3.50000E+06  
*****  
PAGE 2 OF 2
```

NO	SCATTERING	ORDER	LEGENDRE COEFFICIENT
46	5.68400E-02	1	4.90900E-03
47	3.35870E-03	1	1.09710E-03

 * << LEGENDRE COEFFICIENT TABLE >>
 *
 * LIBRARY NAME = J439B.BERMJ3.DATA
 * CODE NUMBER = 36
 * LEVEL = 7 Q-VALUE = 3.56200E+06

NO	SCATTERING	ORDER	LEGENDRE COEFFICIENT
1	1.29550E-03	1	2.19650E-01
2	1.32640E-03	1	2.17540E-01
3	1.35960E-03	1	2.15460E-01
4	1.39450E-03	1	2.13410E-01
5	1.42890E-03	1	2.11390E-01
6	1.46260E-03	1	2.09410E-01
7	1.49590E-03	1	2.07460E-01
8	1.52870E-03	1	2.05530E-01
9	1.56090E-03	1	2.03640E-01
10	1.59270E-03	1	2.01770E-01
11	1.62750E-03	1	1.99550E-01
12	1.67980E-03	1	1.95420E-01
13	1.73390E-03	1	1.91080E-01
14	1.78710E-03	1	1.86820E-01
15	1.83960E-03	1	1.82610E-01
16	1.89130E-03	1	1.78460E-01
17	1.94210E-03	1	1.74390E-01
18	1.99210E-03	1	1.70380E-01
19	2.04140E-03	1	1.66420E-01
20	2.08990E-03	1	1.62530E-01
21	2.14910E-03	1	1.58700E-01
22	2.24410E-03	1	1.54920E-01
23	2.34030E-03	1	1.51220E-01
24	2.43510E-03	1	1.47560E-01
25	2.52840E-03	1	1.43960E-01
26	2.62010E-03	1	1.40430E-01
27	2.71070E-03	1	1.36930E-01
28	2.79980E-03	1	1.33500E-01
29	2.88720E-03	1	1.30120E-01
30	2.97370E-03	1	1.26790E-01
31	3.05880E-03	1	1.23510E-01
32	3.14230E-03	1	1.20290E-01
33	3.41070E-03	1	1.12350E-01
34	3.84640E-03	1	1.00440E-01
35	4.25750E-03	1	8.92460E-02
36	4.66540E-03	1	7.87240E-02
37	5.05500E-03	1	6.88430E-02
38	5.42350E-03	1	5.95550E-02
39	5.87270E-03	1	5.08140E-02
40	6.32480E-03	1	4.26220E-02
41	6.82440E-03	1	3.49210E-02
42	7.10350E-03	1	2.77110E-02
43	7.25180E-03	1	2.08970E-02
44	8.01550E-03	1	1.44380E-02
45	7.26150E-03	1	8.85440E-03

TO CONTINUED

* << LEGENDRE COEFFICIENT TABLE >> *
* * * * *
* LIBRARY NAME = J439B.BERMJ3.DATA *
* CODE NUMBER = 36 *
* LEVEL = 7 Q-VALUE = 3.56200E+06 *

NO	SCATTERING	ORDER	LEGENRE	COEFFICIENT
46	1.83520E-03	1	4.19480E-03	
47	7.65870E-07	1	1.25830E-04	

 * << LEGENDRE COEFFICIENT TABLE >> *
 * LIBRARY NAME = J439B.BERMJ3.DATA *
 * CODE NUMBER = 36 *
 * LEVEL = 8 q-VALUE = 4.00000E+06 *

PAGE 1 OF 1

NO	SCATTERING	ORDER	LEGENDRE COEFFICIENT
1	1.80490E-02	1	2.19650E-01
2	1.86440E-02	1	2.17540E-01
3	1.93150E-02	1	2.15460E-01
4	2.00410E-02	1	2.13410E-01
5	2.07950E-02	1	2.11390E-01
6	2.15710E-02	1	2.09410E-01
7	2.23700E-02	1	2.07460E-01
8	2.32010E-02	1	2.05530E-01
9	2.40800E-02	1	2.03630E-01
10	2.49730E-02	1	2.01770E-01
11	2.58510E-02	1	1.99510E-01
12	2.67070E-02	1	1.95170E-01
13	2.75490E-02	1	1.90590E-01
14	2.84280E-02	1	1.86090E-01
15	2.93180E-02	1	1.81650E-01
16	3.02260E-02	1	1.77280E-01
17	3.11830E-02	1	1.72980E-01
18	3.21310E-02	1	1.68750E-01
19	3.31320E-02	1	1.64580E-01
20	3.41410E-02	1	1.60470E-01
21	3.52490E-02	1	1.56430E-01
22	3.67020E-02	1	1.52450E-01
23	3.81910E-02	1	1.48540E-01
24	3.97550E-02	1	1.44680E-01
25	4.13570E-02	1	1.40890E-01
26	4.29330E-02	1	1.37160E-01
27	4.44900E-02	1	1.33470E-01
28	4.60200E-02	1	1.29850E-01
29	4.75250E-02	1	1.26290E-01
30	4.91350E-02	1	1.22780E-01
31	5.07840E-02	1	1.19310E-01
32	5.24030E-02	1	1.15920E-01
33	5.55490E-02	1	1.07590E-01
34	6.04820E-02	1	9.50040E-02
35	6.64050E-02	1	8.31730E-02
36	7.31410E-02	1	7.20610E-02
37	8.14060E-02	1	6.16230E-02
38	9.05770E-02	1	5.18310E-02
39	9.85610E-02	1	4.26410E-02
40	1.04380E-01	1	3.40110E-02
41	1.07250E-01	1	2.59160E-02
42	1.08090E-01	1	1.82220E-02
43	1.10600E-01	1	1.12910E-02
44	5.09810E-02	1	5.18310E-03
45	1.17790E-03	1	7.53820E-04

 * << LEGENDRE COEFFICIENT TABLE >>
 *
 * LIBRARY NAME = J439B.BERMJ3.DATA
 * CODE NUMBER = 36
 * LEVEL = 9 Q-VALUE = 4.31000E+06

NO	SCATTERING	ORDER	LEGENDRE COEFFICIENT
1	3.10270E-02	3	2.94890E-01 5.11250E-02-2.10820E-02
2	3.07210E-02	3	2.88390E-01 4.90210E-02-2.05340E-02
3	3.04060E-02	3	2.79370E-01 4.67100E-02-1.73970E-02
4	3.00860E-02	3	2.69090E-01 4.42520E-02-1.23960E-02
5	2.97710E-02	3	2.58780E-01 4.18350E-02-7.47770E-03
6	2.94610E-02	3	2.48650E-01 3.94580E-02-2.64020E-03
7	2.91330E-02	3	2.40670E-01 3.68600E-02-6.25610E-06
8	2.87840E-02	2	2.35260E-01 3.39890E-02
9	2.84390E-02	2	2.29930E-01 3.11600E-02
10	2.81000E-02	2	2.24690E-01 2.83750E-02
11	2.78950E-02	2	2.19550E-01 2.55450E-02
12	2.83620E-02	2	2.14630E-01 2.23210E-02
13	2.89160E-02	2	2.09830E-01 1.90900E-02
14	2.94610E-02	2	2.05100E-01 1.59130E-02
15	2.99980E-02	2	2.00440E-01 1.27810E-02
16	3.05170E-02	2	1.96020E-01 9.53610E-03
17	3.10030E-02	2	1.92020E-01 6.01760E-03
18	3.14810E-02	2	1.88100E-01 2.54120E-03
19	3.19520E-02	2	1.84230E-01-8.82810E-04
20	3.24150E-02	2	1.80420E-01-4.25350E-03
21	3.28370E-02	2	1.76920E-01-7.61720E-03
22	3.31400E-02	2	1.74220E-01-1.10770E-02
23	3.34300E-02	2	1.71630E-01-1.44920E-02
24	3.37160E-02	2	1.69070E-01-1.78590E-02
25	3.39970E-02	2	1.66560E-01-2.11710E-02
26	3.42730E-02	2	1.64090E-01-2.44260E-02
27	3.44780E-02	2	1.62530E-01-2.74730E-02
28	3.46340E-02	2	1.61590E-01-3.03530E-02
29	3.47870E-02	2	1.60670E-01-3.31820E-02
30	3.49380E-02	2	1.59760E-01-3.59770E-02
31	3.50860E-02	2	1.58860E-01-3.87290E-02
32	3.52330E-02	2	1.57980E-01-4.14310E-02
33	3.50050E-02	2	1.57810E-01-4.40810E-02
34	3.45380E-02	2	1.58310E-01-4.66120E-02
35	3.27300E-02	2	1.58780E-01-4.89850E-02
36	3.08180E-02	2	1.56790E-01-5.02520E-02
37	2.85750E-02	2	1.55250E-01-4.36420E-02
38	2.61140E-02	2	1.10720E-01-3.57250E-02
39	2.36380E-02	2	8.76760E-02-2.82900E-02
40	2.04590E-02	2	6.60600E-02-2.13150E-02
41	1.70550E-02	2	4.58160E-02-1.47830E-02
42	1.28870E-02	2	2.69150E-02-8.68460E-03
43	6.26980E-03	2	1.03590E-02-3.34240E-03

 * << LEGENDRE COEFFICIENT TABLE >> *
 * LIBRARY NAME = J439B.BERNJ3.DATA *
 * CODE NUMBER = 36 *
 * LEVEL = 10 Q-VALUE = 4.50000E+06 *

NO SCATTERING ORDER LEGENDRE COEFFICIENT

1	1.24680E-02	1	1.69650E-01
2	1.28710E-02	1	1.67540E-01
3	1.33270E-02	1	1.65460E-01
4	1.38180E-02	1	1.63410E-01
5	1.43300E-02	1	1.61390E-01
6	1.48550E-02	1	1.59410E-01
7	1.53950E-02	1	1.57450E-01
8	1.59560E-02	1	1.55530E-01
9	1.65470E-02	1	1.53630E-01
10	1.71490E-02	1	1.51770E-01
11	1.77640E-02	1	1.49650E-01
12	1.84670E-02	1	1.46130E-01
13	1.91710E-02	1	1.42470E-01
14	1.99170E-02	1	1.38870E-01
15	2.06780E-02	1	1.35320E-01
16	2.14480E-02	1	1.31820E-01
17	2.2220E-02	1	1.28380E-01
18	2.31070E-02	1	1.25000E-01
19	2.39710E-02	1	1.21660E-01
20	2.48650E-02	1	1.18370E-01
21	2.58520E-02	1	1.15140E-01
22	2.70930E-02	1	1.11960E-01
23	2.83680E-02	1	1.08830E-01
24	2.97150E-02	1	1.05740E-01
25	3.10960E-02	1	1.02710E-01
26	3.24690E-02	1	9.97220E-02
27	3.38760E-02	1	9.67720E-02
28	3.52640E-02	1	9.38750E-02
29	3.66290E-02	1	9.10280E-02
30	3.81020E-02	1	8.82140E-02
31	3.96170E-02	1	8.54450E-02
32	4.11040E-02	1	8.27260E-02
33	4.41810E-02	1	7.60490E-02
34	4.91030E-02	1	6.59800E-02
35	5.49050E-02	1	5.65180E-02
36	6.13850E-02	1	4.76310E-02
37	6.90170E-02	1	3.92850E-02
38	7.69370E-02	1	3.14560E-02
39	8.28610E-02	1	2.41110E-02
40	8.48230E-02	1	1.72300E-02
41	9.08550E-02	1	1.06820E-02
42	5.61360E-02	1	5.12800E-03
43	3.29640E-03	1	1.11770E-03

 * << LEGENDRE COEFFICIENT TABLE >>
 *
 * LIBRARY NAME = J439B.BERMJ3.DATA
 * CODE NUMBER = 36
 * LEVEL = 11 Q-VALUE = 5.00000E+06

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NO SCATTERING ORDER LEGENDRE COEFFICIENT

1	1.50480E-02	1	1.63580E-01
2	1.55240E-02	1	1.61050E-01
3	1.60620E-02	1	1.58550E-01
4	1.66430E-02	1	1.56090E-01
5	1.72470E-02	1	1.53670E-01
6	1.78650E-02	1	1.51290E-01
7	1.85010E-02	1	1.48270E-01
8	1.91590E-02	1	1.44490E-01
9	1.98520E-02	1	1.40770E-01
10	2.05570E-02	1	1.37100E-01
11	2.12680E-02	1	1.33490E-01
12	2.20480E-02	1	1.29940E-01
13	2.28250E-02	1	1.26440E-01
14	2.36410E-02	1	1.23000E-01
15	2.44700E-02	1	1.19610E-01
16	2.53180E-02	1	1.16270E-01
17	2.62140E-02	1	1.12990E-01
18	2.71010E-02	1	1.09760E-01
19	2.80250E-02	1	1.06570E-01
20	2.89770E-02	1	1.03440E-01
21	3.00300E-02	1	1.00350E-01
22	3.13680E-02	1	9.73140E-02
23	3.27380E-02	1	9.43260E-02
24	3.41740E-02	1	9.13800E-02
25	3.56380E-02	1	8.84830E-02
26	3.70850E-02	1	8.56340E-02
27	3.85410E-02	1	8.28190E-02
28	3.99750E-02	1	8.00520E-02
29	4.13850E-02	1	7.73350E-02
30	4.28800E-02	1	7.46490E-02
31	4.44040E-02	1	7.20060E-02
32	4.59010E-02	1	6.94100E-02
33	4.88160E-02	1	6.30500E-02
34	5.32690E-02	1	5.34400E-02
35	5.82610E-02	1	4.44100E-02
36	6.33390E-02	1	3.59320E-02
37	6.85950E-02	1	2.79700E-02
38	7.24370E-02	1	2.05080E-02
39	7.16010E-02	1	1.34930E-02
40	6.67110E-02	1	7.21460E-03
41	1.54690E-02	1	2.42820E-03

 * << LEGENDRE COEFFICIENT TABLE >> *
 * * * * *
 * LIBRARY NAME = J439B.BERMJ3.DATA *
 * CODE NUMBER = 36 *
 * LEVEL = 12 Q-VALUE = 5.5000E+06 *

NO SCATTERING ORDER LEGENDRE COEFFICIENT

1	1.51140E-02	1	1.69650E-01
2	1.55820E-02	1	1.67540E-01
3	1.61100E-02	1	1.65460E-01
4	1.66800E-02	1	1.63410E-01
5	1.72700E-02	1	1.61390E-01
6	1.78750E-02	1	1.59410E-01
7	1.84950E-02	1	1.57450E-01
8	1.91360E-02	1	1.55530E-01
9	1.98090E-02	1	1.53630E-01
10	2.04910E-02	1	1.51770E-01
11	2.11850E-02	1	1.499570E-01
12	2.19640E-02	1	1.48540E-01
13	2.27440E-02	1	1.471310E-01
14	2.35620E-02	1	1.457160E-01
15	2.43920E-02	1	1.443060E-01
16	2.52400E-02	1	1.429020E-01
17	2.61330E-02	1	1.425050E-01
18	2.70180E-02	1	1.421140E-01
19	2.79350E-02	1	1.417290E-01
20	2.88790E-02	1	1.413500E-01
21	2.99210E-02	1	1.409770E-01
22	3.12420E-02	1	1.406100E-01
23	3.25930E-02	1	1.402480E-01
24	3.40060E-02	1	9.89220E-02
25	3.54470E-02	1	9.54190E-02
26	3.68640E-02	1	9.19750E-02
27	3.82650E-02	1	8.85710E-02
28	3.96410E-02	1	8.52270E-02
29	4.09940E-02	1	8.19420E-02
30	4.24120E-02	1	7.86950E-02
31	4.38490E-02	1	7.54990E-02
32	4.52600E-02	1	7.23610E-02
33	4.78910E-02	1	6.46790E-02
34	5.16230E-02	1	5.30660E-02
35	5.53990E-02	1	4.21540E-02
36	5.84410E-02	1	3.19180E-02
37	6.09480E-02	1	2.22620E-02
38	6.63860E-02	1	1.32800E-02
39	3.83140E-02	1	5.49040E-03
40	4.43430E-04	1	4.49720E-04

 * << LEGENDRE COEFFICIENT TABLE >> *
 * LIBRARY NAME = J439B.BERMJ3.DATA *
 * CODE NUMBER = 36 *
 * LEVEL = 13 Q-VALUE = 5.70000E+06 *

NO SCATTERING ORDER LEGENDRE COEFFICIENT

1	1.63750E-02	1	1.19660E-01
2	1.63230E-02	1	1.17540E-01
3	1.62280E-02	1	1.15470E-01
4	1.61030E-02	1	1.13420E-01
5	1.59790E-02	1	1.11400E-01
6	1.58580E-02	1	1.09420E-01
7	1.56980E-02	1	1.07460E-01
8	1.54930E-02	1	1.05540E-01
9	1.52910E-02	1	1.03640E-01
10	1.50930E-02	1	1.01770E-01
11	1.49640E-02	1	9.97680E-02
12	1.51870E-02	1	9.69350E-02
13	1.54550E-02	1	9.40280E-02
14	1.57190E-02	1	9.11690E-02
15	1.59790E-02	1	8.83500E-02
16	1.62230E-02	1	8.55730E-02
17	1.64340E-02	1	8.28430E-02
18	1.66420E-02	1	8.01540E-02
19	1.68460E-02	1	7.75050E-02
20	1.70470E-02	1	7.48980E-02
21	1.72450E-02	1	7.23310E-02
22	1.74390E-02	1	6.98050E-02
23	1.76310E-02	1	6.73200E-02
24	1.78200E-02	1	6.48690E-02
25	1.80060E-02	1	6.24590E-02
26	1.81890E-02	1	6.00900E-02
27	1.84250E-02	1	5.77470E-02
28	1.86940E-02	1	5.54460E-02
29	1.89580E-02	1	5.31860E-02
30	1.92200E-02	1	5.09520E-02
31	1.94770E-02	1	4.87530E-02
32	1.97290E-02	1	4.65940E-02
33	2.05380E-02	1	4.13160E-02
34	2.17810E-02	1	3.33360E-02
35	2.19530E-02	1	2.58560E-02
36	2.14290E-02	1	1.88390E-02
37	1.78990E-02	1	1.22990E-02
38	1.24800E-02	1	6.18190E-03
39	2.99620E-03	1	1.79750E-03

 * << LEGENDRE COEFFICIENT TABLE >>
 *
 * LIBRARY NAME = J439B.BERMJ3.DATA
 * CODE NUMBER = 36
 * LEVEL = 14 Q-VALUE = 6.00000E+06

NO SCATTERING ORDER LEGENDRE COEFFICIENT

1	1.50550E-02	1	1.19650E-01
2	1.53260E-02	1	1.17540E-01
3	1.56530E-02	1	1.15460E-01
4	1.60190E-02	1	1.13410E-01
5	1.63790E-02	1	1.11390E-01
6	1.67410E-02	1	1.09410E-01
7	1.71200E-02	1	1.07460E-01
8	1.74950E-02	1	1.05530E-01
9	1.78840E-02	1	1.03640E-01
10	1.82760E-02	1	1.01770E-01
11	1.87180E-02	1	9.97410E-02
12	1.94460E-02	1	9.67760E-02
13	2.02060E-02	1	9.37240E-02
14	2.10030E-02	1	9.07210E-02
15	2.18130E-02	1	8.77620E-02
16	2.26390E-02	1	8.48450E-02
17	2.35120E-02	1	8.19790E-02
18	2.43750E-02	1	7.91560E-02
19	2.52700E-02	1	7.63750E-02
20	2.61900E-02	1	7.36370E-02
21	2.72000E-02	1	7.09400E-02
22	2.84650E-02	1	6.82880E-02
23	2.97570E-02	1	6.56780E-02
24	3.11030E-02	1	6.31050E-02
25	3.24690E-02	1	6.05750E-02
26	3.38130E-02	1	5.80880E-02
27	3.51410E-02	1	5.56290E-02
28	3.64460E-02	1	5.32130E-02
29	3.77290E-02	1	5.08400E-02
30	3.90470E-02	1	4.84950E-02
31	4.03720E-02	1	4.61870E-02
32	4.16730E-02	1	4.39200E-02
33	4.39450E-02	1	3.83760E-02
34	4.69120E-02	1	2.99940E-02
35	4.90960E-02	1	2.21260E-02
36	5.01450E-02	1	1.46970E-02
37	4.88990E-02	1	8.03280E-03
38	1.07890E-02	1	2.94420E-03

 * << LEGENDRE COEFFICIENT TABLE >> *
 * * * * *
 * LIBRARY NAME = J439B.BERMJ3.DATA *
 * CODE NUMBER = 36 *
 * LEVEL = 15 Q-VALUE = 6.50000E+06 *

SCATTERING ORDER LEGENDRE COEFFICIENT

NO	SCATTERING	ORDER	LEGENDRE COEFFICIENT
1	1.58640E-02	1	7.06550E-02
2	1.61350E-02	1	6.86130E-02
3	1.64580E-02	1	6.66010E-02
4	1.68190E-02	1	6.46190E-02
5	1.71890E-02	1	6.26690E-02
6	1.75650E-02	1	6.07520E-02
7	1.79350E-02	1	5.88620E-02
8	1.83010E-02	1	5.70010E-02
9	1.86810E-02	1	5.51680E-02
10	1.90650E-02	1	5.33630E-02
11	1.95000E-02	1	5.15840E-02
12	2.02270E-02	1	4.98350E-02
13	2.09850E-02	1	4.81150E-02
14	2.17770E-02	1	4.64230E-02
15	2.25780E-02	1	4.47550E-02
16	2.33920E-02	1	4.31110E-02
17	2.42440E-02	1	4.14960E-02
18	2.50870E-02	1	3.99050E-02
19	2.59650E-02	1	3.83370E-02
20	2.68480E-02	1	3.67950E-02
21	2.78060E-02	1	3.52750E-02
22	2.90370E-02	1	3.37800E-02
23	3.02700E-02	1	3.23100E-02
24	3.15240E-02	1	3.08590E-02
25	3.28060E-02	1	2.94330E-02
26	3.40650E-02	1	2.80320E-02
27	3.52590E-02	1	2.66460E-02
28	3.63980E-02	1	2.52850E-02
29	3.75170E-02	1	2.39470E-02
30	3.86220E-02	1	2.26260E-02
31	3.97100E-02	1	2.13250E-02
32	4.07790E-02	1	2.00470E-02
33	4.22380E-02	1	1.69350E-02
34	4.32270E-02	1	1.22190E-02
35	4.29750E-02	1	7.76120E-03
36	3.63430E-02	1	3.88950E-03
37	3.57880E-03	1	1.06080E-03

 * << LEGENDRE COEFFICIENT TABLE >> *
 * * * * *
 * LIBRARY NAME = J439B.BERMJ3.DATA *
 * CODE NUMBER = 36 *
 * LEVEL = 16 Q-VALUE = 7.00000E+06 *

NO	SCATTERING	ORDER	LEGENDRE COEFFICIENT
1	1.46850E-02	1	6.92100E-02
2	1.46180E-02	1	6.70670E-02
3	1.45800E-02	1	6.49560E-02
4	1.45490E-02	1	6.28770E-02
5	1.45080E-02	1	6.08310E-02
6	1.44590E-02	1	5.88180E-02
7	1.43840E-02	1	5.68360E-02
8	1.43080E-02	1	5.48820E-02
9	1.42040E-02	1	5.29590E-02
10	1.40860E-02	1	5.10650E-02
11	1.40980E-02	1	4.91950E-02
12	1.47710E-02	1	4.73570E-02
13	1.55280E-02	1	4.55220E-02
14	1.63250E-02	1	4.37760E-02
15	1.71350E-02	1	4.20260E-02
16	1.79520E-02	1	4.03020E-02
17	1.88130E-02	1	3.86060E-02
18	1.96820E-02	1	3.69370E-02
19	2.05690E-02	1	3.52920E-02
20	2.14730E-02	1	3.36730E-02
21	2.24460E-02	1	3.20790E-02
22	2.36250E-02	1	3.05100E-02
23	2.48220E-02	1	2.89670E-02
24	2.60490E-02	1	2.74450E-02
25	2.72820E-02	1	2.59490E-02
26	2.84950E-02	1	2.44780E-02
27	2.96350E-02	1	2.30250E-02
28	3.07170E-02	1	2.15960E-02
29	3.1770E-02	1	2.01930E-02
30	3.27660E-02	1	1.88060E-02
31	3.37080E-02	1	1.74410E-02
32	3.46330E-02	1	1.61010E-02
33	3.55390E-02	1	1.28450E-02
34	3.52900E-02	1	7.87610E-03
35	2.72770E-02	1	3.65460E-03
36	1.03880E-03	1	6.55360E-04

```

*****
*
* << LEGENDRE COEFFICIENT TABLE >>
*
* LIBRARY NAME = J439B.BERMJ3.DATA
* CODE NUMBER = 36
* LEVEL = 17 Q-VALUE = 7.50000E+06
*****

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NO SCATTERING ORDER LEGENDRE COEFFICIENT

1	1.51350E-02	1	6.76110E-02
2	1.50470E-02	1	6.53570E-02
3	1.49890E-02	1	6.31370E-02
4	1.49360E-02	1	6.09490E-02
5	1.48730E-02	1	5.87960E-02
6	1.48010E-02	1	5.6800E-02
7	1.47000E-02	1	5.45940E-02
8	1.45980E-02	1	5.25400E-02
9	1.44650E-02	1	5.05160E-02
10	1.43170E-02	1	4.85240E-02
11	1.43050E-02	1	4.65570E-02
12	1.49760E-02	1	4.46230E-02
13	1.57360E-02	1	4.27240E-02
14	1.65270E-02	1	4.08560E-02
15	1.73270E-02	1	3.90160E-02
16	1.81370E-02	1	3.72010E-02
17	1.89760E-02	1	3.54180E-02
18	1.98070E-02	1	3.36620E-02
19	2.06560E-02	1	3.19320E-02
20	2.15030E-02	1	3.02290E-02
21	2.24020E-02	1	2.85510E-02
22	2.34930E-02	1	2.69010E-02
23	2.45810E-02	1	2.52790E-02
24	2.56550E-02	1	2.36780E-02
25	2.67110E-02	1	2.21040E-02
26	2.77480E-02	1	2.05570E-02
27	2.86350E-02	1	1.90280E-02
28	2.94120E-02	1	1.75250E-02
29	3.01700E-02	1	1.60490E-02
30	3.07000E-02	1	1.45910E-02
31	3.11060E-02	1	1.31550E-02
32	3.15060E-02	1	1.17450E-02
33	3.06660E-02	1	8.34530E-03
34	2.23700E-02	1	3.65430E-03
35	3.05730E-04	1	4.05660E-04

 * << LEGENDRE COEFFICIENT TABLE >> *
 * * * * *
 * LIBRARY NAME = J439B.BERMJ3.DATA *
 * CODE NUMBER = 36 *
 * LEVEL = 18 Q-VALUE = 8.00000E+06 *

NO	SCATTERING	ORDER	LEGENDRE COEFFICIENT
1	1.51340E-02	1	6.58380E-02
2	1.49640E-02	1	6.34600E-02
3	1.48140E-02	1	6.11190E-02
4	1.46790E-02	1	5.88110E-02
5	1.45220E-02	1	5.65410E-02
6	1.43480E-02	1	5.43080E-02
7	1.41560E-02	1	5.21080E-02
8	1.39420E-02	1	4.99410E-02
9	1.36960E-02	1	4.78080E-02
10	1.34350E-02	1	4.57060E-02
11	1.3280E-02	1	4.36300E-02
12	1.39940E-02	1	4.15890E-02
13	1.47600E-02	1	3.95860E-02
14	1.55490E-02	1	3.76160E-02
15	1.63440E-02	1	3.56750E-02
16	1.71430E-02	1	3.37610E-02
17	1.79590E-02	1	3.18810E-02
18	1.87640E-02	1	3.00280E-02
19	1.95570E-02	1	2.82040E-02
20	2.03380E-02	1	2.64080E-02
21	2.11540E-02	1	2.46390E-02
22	2.21100E-02	1	2.28980E-02
23	2.30610E-02	1	2.11860E-02
24	2.39500E-02	1	1.94990E-02
25	2.47650E-02	1	1.78380E-02
26	2.55390E-02	1	1.62070E-02
27	2.60010E-02	1	1.45950E-02
28	2.63000E-02	1	1.30100E-02
29	2.65870E-02	1	1.14520E-02
30	2.63380E-02	1	9.91770E-03
31	2.57580E-02	1	8.40250E-03
32	2.51890E-02	1	6.91500E-03
33	1.97980E-02	1	3.87500E-03
34	1.90440E-04	1	3.28170E-04

 * << LEGENDRE COEFFICIENT TABLE >> *
 * * * * *
 * LIBRARY NAME = J4398.BERMJ3.DATA *
 * CODE NUMBER = 36 *
 * LEVEL = 19 Q-VALUE = 8.50000E+06 *

NO SCATTERING ORDER LEGENDRE COEFFICIENT

1	1.49930E-02	1	6.38600E-02
2	1.47370E-02	1	6.13440E-02
3	1.44960E-02	1	5.88670E-02
4	1.42680E-02	1	5.64250E-02
5	1.40190E-02	1	5.40240E-02
6	1.37470E-02	1	5.16620E-02
7	1.34400E-02	1	4.93350E-02
8	1.31150E-02	1	4.70420E-02
9	1.27740E-02	1	4.47850E-02
10	1.23950E-02	1	4.25620E-02
11	1.21890E-02	1	4.03640E-02
12	1.28540E-02	1	3.82030E-02
13	1.36340E-02	1	3.60850E-02
14	1.44280E-02	1	3.40010E-02
15	1.52220E-02	1	3.19470E-02
16	1.60050E-02	1	2.99230E-02
17	1.67740E-02	1	2.79330E-02
18	1.75310E-02	1	2.59740E-02
19	1.82590E-02	1	2.40440E-02
20	1.89430E-02	1	2.21440E-02
21	1.96250E-02	1	2.02720E-02
22	2.03960E-02	1	1.84310E-02
23	2.1120E-02	1	1.66210E-02
24	2.16430E-02	1	1.48360E-02
25	2.20310E-02	1	1.30800E-02
26	2.23560E-02	1	1.13540E-02
27	2.30470E-02	1	9.64110E-03
28	2.41100E-02	1	7.96430E-03
29	2.50540E-02	1	6.31990E-03
30	2.19010E-02	1	4.72720E-03
31	1.66220E-02	1	3.13440E-03
32	1.12350E-02	1	1.58000E-03
33	5.11740E-04	1	4.93250E-04

 * << LEGENDRE COEFFICIENT TABLE >> *
 * * * * *
 * LIBRARY NAME = J439B.BERMJ3.DATA *
 * CODE NUMBER = 36 *
 * LEVEL = 20 Q-VALUE = 9.00000E+06 *

NO	SCATTERING	ORDER	LEGENDRE COEFFICIENT
1	1.50440E-02	1	6.16380E-02
2	1.47570E-02	1	5.89670E-02
3	1.44930E-02	1	5.63380E-02
4	1.42280E-02	1	5.37460E-02
5	1.39380E-02	1	5.11970E-02
6	1.36300E-02	1	4.86900E-02
7	1.32860E-02	1	4.62200E-02
8	1.29210E-02	1	4.37860E-02
9	1.25410E-02	1	4.13900E-02
10	1.21210E-02	1	3.90300E-02
11	1.18780E-02	1	3.66960E-02
12	1.25240E-02	1	3.44030E-02
13	1.32860E-02	1	3.21540E-02
14	1.40290E-02	1	2.99420E-02
15	1.47570E-02	1	2.77620E-02
16	1.54760E-02	1	2.56130E-02
17	1.61450E-02	1	2.35020E-02
18	1.67680E-02	1	2.14220E-02
19	1.73160E-02	1	1.93740E-02
20	1.77560E-02	1	1.73580E-02
21	1.81260E-02	1	1.53720E-02
22	1.84900E-02	1	1.34180E-02
23	1.87160E-02	1	1.14970E-02
24	1.93150E-02	1	9.59100E-03
25	2.05820E-02	1	7.72720E-03
26	2.05960E-02	1	5.92530E-03
27	1.52110E-02	1	4.15460E-03
28	8.77540E-03	1	2.41920E-03
29	2.26770E-03	1	9.54140E-04

 * << LEGENDRE COEFFICIENT TABLE >> *
 * * * * *
 * LIBRARY NAME = J439B.BERMJ3.DATA *
 * CODE NUMBER = 36 *
 * LEVEL = 21 Q-VALUE = 9.50000E+06 *

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NO SCATTERING ORDER LEGENDRE COEFFICIENT

1	1.49620E-02	1	5.91230E-02
2	1.46390E-02	1	5.62770E-02
3	1.43380E-02	1	5.34760E-02
4	1.40340E-02	1	5.07140E-02
5	1.37040E-02	1	4.79980E-02
6	1.33540E-02	1	4.53270E-02
7	1.29650E-02	1	4.26950E-02
8	1.25550E-02	1	4.01020E-02
9	1.21280E-02	1	3.75490E-02
10	1.16580E-02	1	3.50340E-02
11	1.13670E-02	1	3.25460E-02
12	1.19760E-02	1	3.01010E-02
13	1.27020E-02	1	2.77050E-02
14	1.33890E-02	1	2.53500E-02
15	1.40190E-02	1	2.30270E-02
16	1.46140E-02	1	2.07380E-02
17	1.50750E-02	1	1.84890E-02
18	1.54560E-02	1	1.62720E-02
19	1.56750E-02	1	1.40910E-02
20	1.56700E-02	1	1.19440E-02
21	1.59010E-02	1	9.81470E-03
22	1.73120E-02	1	7.72910E-03
23	1.63770E-02	1	5.73720E-03
24	1.13970E-02	1	3.76220E-03
25	5.36930E-03	1	1.87430E-03
26	4.11810E-04	1	4.71230E-04

 * << LEGENDRE COEFFICIENT TABLE >> *
 * * * * *
 * LIBRARY NAME = J439B.BERMJ3.DATA *
 * CODE NUMBER = 36 *
 * LEVEL = 22 Q-VALUE = 1.00000E+07 *

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NO SCATTERING ORDER LEGENDRE COEFFICIENT

1	1.50560E-02	1	5.62550E-02
2	1.47480E-02	1	5.32090E-02
3	1.44600E-02	1	5.02110E-02
4	1.41670E-02	1	4.72560E-02
5	1.38460E-02	1	4.43490E-02
6	1.35040E-02	1	4.14900E-02
7	1.31220E-02	1	3.86740E-02
8	1.27190E-02	1	3.58990E-02
9	1.22790E-02	1	3.31670E-02
10	1.17980E-02	1	3.04750E-02
11	1.14780E-02	1	2.78150E-02
12	1.19670E-02	1	2.51990E-02
13	1.25610E-02	1	2.26350E-02
14	1.30360E-02	1	2.01160E-02
15	1.33940E-02	1	1.76290E-02
16	1.36780E-02	1	1.51810E-02
17	1.36550E-02	1	1.27770E-02
18	1.35590E-02	1	1.03990E-02
19	1.48080E-02	1	8.04250E-03
20	1.34600E-02	1	5.81930E-03
21	9.15250E-03	1	3.60740E-03
22	3.44630E-03	1	1.58750E-03
23	1.76860E-05	1	1.12030E-04

 * << LEGENDRE COEFFICIENT TABLE >> *
 * * * * *
 * LIBRARY NAME = J439B.BERMJ3.DATA *
 * CODE NUMBER = 36 *
 * LEVEL = 23 Q-VALUE = 1.05000E+07 *

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NO SCATTERING ORDER LEGENDRE COEFFICIENT

1	1.49810E-02	1	5.29540E-02
2	1.46730E-02	1	4.96780E-02
3	1.43830E-02	1	4.64540E-02
4	1.40840E-02	1	4.32760E-02
5	1.37510E-02	1	4.01500E-02
6	1.33920E-02	1	3.70750E-02
7	1.29830E-02	1	3.40460E-02
8	1.25480E-02	1	3.10620E-02
9	1.20620E-02	1	2.81250E-02
10	1.15190E-02	1	2.52300E-02
11	1.10570E-02	1	2.23750E-02
12	1.09890E-02	1	1.95660E-02
13	1.09730E-02	1	1.68080E-02
14	1.07450E-02	1	1.41030E-02
15	1.03070E-02	1	1.14290E-02
16	1.06720E-02	1	8.74600E-03
17	9.95400E-03	1	6.26060E-03
18	6.73680E-03	1	3.74980E-03
19	2.24390E-03	1	1.58290E-03

```

*****
*
* << LEGENDRE COEFFICIENT TABLE >>
*
* LIBRARY NAME = J439B-BERMJ3.DATA
* CODE NUMBER = 36
* LEVEL = 24 Q-VALUE = 1.10000E+07
*****

```

NO	SCATTERING	ORDER	LEGENDRE COEFFICIENT
1	1.44130E-02	1	4.91150E-02
2	1.40430E-02	1	4.55730E-02
3	1.36780E-02	1	4.20860E-02
4	1.32940E-02	1	3.86480E-02
5	1.28700E-02	1	3.52680E-02
6	1.24140E-02	1	3.19420E-02
7	1.18920E-02	1	2.86670E-02
8	1.13330E-02	1	2.54390E-02
9	1.07020E-02	1	2.22640E-02
10	9.98470E-03	1	1.91340E-02
11	9.32020E-03	1	1.60480E-02
12	8.89550E-03	1	1.30120E-02
13	8.62810E-03	1	1.00100E-02
14	9.03110E-03	1	7.14590E-03
15	6.30690E-03	1	4.29790E-03
16	2.59180E-03	1	1.81640E-03

 * << LEGENDRE COEFFICIENT TABLE >> *
 * LIBRARY NAME = J439B.BERMJ3.DATA *
 * CODE NUMBER = 36 *
 * LEVEL = 25 Q-VALUE = 1.15000E+07 *

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NO SCATTERING ORDER LEGENDRE COEFFICIENT

1	1.36490E-02	1	4.46040E-02
2	1.31870E-02	1	4.07470E-02
3	1.27250E-02	1	3.69510E-02
4	1.22340E-02	1	3.32090E-02
5	1.16870E-02	1	2.95300E-02
6	1.10940E-02	1	2.59100E-02
7	1.04040E-02	1	2.23460E-02
8	9.65710E-03	1	1.88330E-02
9	9.01140E-03	1	1.53600E-02
10	8.70800E-03	1	1.19490E-02
11	8.05560E-03	1	8.63960E-03
12	5.98140E-03	1	5.38580E-03
13	3.45920E-03	1	2.28060E-03
14	7.42000E-05	1	2.83810E-04

 * << LEGENDRE COEFFICIENT TABLE >> *
 * LIBRARY NAME = J439B.BERMJ3.DATA *
 * CODE NUMBER = 36 *
 * LEVEL = 26 Q-VALUE = 1.20000E+07 *

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NO SCATTERING ORDER LEGENDRE COEFFICIENT

1	1.41900E-02	1	3.91980E-02
2	1.38270E-02	1	3.49660E-02
3	1.34360E-02	1	3.08000E-02
4	1.29640E-02	1	2.66950E-02
5	1.23620E-02	1	2.26580E-02
6	1.16440E-02	1	1.86890E-02
7	1.12170E-02	1	1.47470E-02
8	1.12080E-02	1	1.09020E-02
9	8.35440E-03	1	7.25980E-03
10	3.91910E-03	1	3.69480E-03
11	3.58640E-04	1	1.00130E-03

 * << LEGENDRE COEFFICIENT TABLE >> *
 *
 * LIBRARY NAME = J439B.BERMJ3.DATA *
 * CODE NUMBER = 36 *
 * LEVEL = 27 Q-VALUE = 1.25000E+07 *

NO	SCATTERING	ORDER	LEGENDRE COEFFICIENT
1	1.25280E-02	1	3.26360E-02
2	1.19260E-02	1	2.79470E-02
3	1.12510E-02	1	2.33350E-02
4	1.04200E-02	1	1.87900E-02
5	1.01770E-02	1	1.42690E-02
6	9.43920E-03	1	9.98950E-03
7	5.55990E-03	1	5.82010E-03
8	1.34380E-03	1	2.25520E-03

 * << LEGENDRE COEFFICIENT TABLE >> *
 *
 * LIBRARY NAME = J439B.BERMJ3.DATA *
 * CODE NUMBER = 36 *
 * LEVEL = 28 Q-VALUE = 1.30000E+07 *

NO	SCATTERING	ORDER	LEGENDRE COEFFICIENT
1	1.03430E-02	1	2.44920E-02
2	9.37450E-03	1	1.92390E-02
3	9.32520E-03	1	1.39950E-02
4	7.37540E-03	1	9.11740E-03
5	3.37170E-03	1	4.42940E-03
6	1.73960E-04	1	9.39970E-04

```

*****
*
* << LEGENDRE COEFFICIENT TABLE >>
*
* LIBRARY NAME = J4398.BERMJ3.DATA
* CODE NUMBER = 36
* LEVEL = 29 Q-VALUE = 1.35000E+07
*
*****
    
```

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NO SCATTERING ORDER LEGENDRE COEFFICIENT

1	8.40850E-03	1	1.40750E-02
2	5.72740E-03	1	8.34730E-03
3	1.70370E-03	1	3.59940E-03

```

*****
*
* << LEGENDRE COEFFICIENT TABLE >>
*
* LIBRARY NAME = J4398.BERMJ3.DATA
* CODE NUMBER = 36
* LEVEL = 30 Q-VALUE = 1.40000E+07
*
*****
    
```

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NO SCATTERING ORDER LEGENDRE COEFFICIENT

1	7.72910E-04	1	2.53530E-03
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以下、共鳴自己遮蔽因子のテーブル(略)