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DEPOSITION OF RADIONUCLIDES AND STABLE ELEMENTS IN TOKAI-MURA

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Deposition of Radionuclides and Stable Elements in Tokai-mura

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This report presents the data of deposition of radionuclides (Sep. 1993-March 2001) and stable elements (Sep. 1993-Oct. 1995) in Tokai-mura. To evaluate the migration of radionuclides and stable elements from the atmosphere to the ground surface, atmospheric deposition samples were collected from Sep. 1993 to March 2001 with three basins (distance to grand surface were 1.5m, 4m, 10m) set up in the enclosure of JAERI in Tokai-mura, Ibaraki-ken, Japan. Monthly samples were evaporated to dryness to obtain residual samples and measured with a well type Ge detector for ^{7}Be, ^{40}K, ^{137}Cs and ^{210}Pb. According to the analysis of radioactivity, clear seasonal variations with spring peaks of deposition weight (dry) and deposition amounts of all objective radionuclides were found. Correlation analysis of deposition data also showed that these radionuclides can be divided into two groups. A part of dried sample was irradiated to reactor neutrons at JRR-4 for determination of stable element's deposition.

Keywords: Atmospheric Deposition, Radionuclides, Stable Elements, Basin,
Radioactivity Measurement, Neutron Activation Analysis

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東海村における放射性核種及び安定元素の降下量

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(2003年1月31日受理)

本報告書は、東海村における放射性核種(1993年9月-2001年3月)及び安定元素(1993年9月-1995年10月)の降下量のデータをまとめたものである。大気から地表面への放射性核種及び安定元素の移行を評価するため、降下物試料を1993年9月-2001年3月に原研構内（東海村）で高度別（地表面からの距離を1.5m、4m、10m）に設置した水盤にて月毎に採取した。採取された水盤試料は、蒸発濃縮による前処理を行い、得られた残渣試料を井戸型のGe半導体検出器によるγ線スペクトロメトリーにて^{7}Be, ^{40}K, ^{137}Cs及び^{210}Pbを定量した。その結果、降下物重量及びこれらの放射性核種の降下量には、春にピークのある明瞭な季節変化があることが分かった。降下量の相関解析により、これらの放射性核種は2つのグループに分けられることが示された。乾燥試料の一部が、安定元素の放射化分析のためにJRR-4において中性子照射され、安定元素の降下量が評価された。

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Contents

目　次

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List of Tables and Figures

1. INTRODUCTION

Atmospheric deposition of radionuclides has been investigated in many studies from the aspects of radiation protection and geochemistry. Since ^{137}Cs is firmly absorbed to surface soil constituents, it has been used to study soil erosion or resuspension processes [1,2]. In addition to the ^{137}Cs fallout, atmospherically-derived ^{210}Pb and ^{7}Be are also useful as tracers in the study of material transfer from the air to the ground surface. ^{210}Pb is formed in the atmosphere from ^{222}Rn diffused from the ground surface, is adsorbed onto aerosols, and gradually deposits back onto the earth's surface. ^{7}Be is formed by spallation of ^{14}N and ^{16}O due to cosmic ray in the high altitude atmosphere and has long been used as an environmental tracer like ^{210}Pb [3].

In this study, to obtain fundamental ideas on the characteristics of radionuclide deposition at our objective site, Tokai-mura, and to obtain a set of samples and a dataset of radionuclide deposition for investigating the atmospheric transport-deposition processes of particulate matter, a long-term monitoring of atmospheric deposition has been carried out.

This report describes mainly the experimental method and results about atmospheric deposition of radionuclides and stable elements at Tokai-mura. According to the analysis, clear seasonal variations with spring peaks of deposition weight and deposition amounts of all objective radionuclides (^{7}Be, ^{40}K, ^{137}Cs and ^{210}Pb) were found. Analysis also showed that these radionuclides can be divided into two groups, each having different carrier particle sizes and hence different deposition processes.

A part of dried sample was irradiated to determine stable elements by reactor neutrons at JRR-4. Obtained concentration data were analyzed and evaluated regarding deposition of stable elements.

2. EXPERIMENTAL METHODS

2.1. Sampling and pretreatment

Monthly deposition samples were collected during the period from Sep. 1993 to March 2001 with three basins set at different altitude with the surface area of 0.5 m^2. One of them (R) was set up on the roof of a 10 m-high building, the second (P) was set up on the roof of a 4 m-high building, the last one (Q) was set up on a 1.5 m-high stand. All of them were set up in the enclosure of the Tokai establishment of Japan Atomic Energy Research Institute (JAERI) (Longitude 140° 36.0' E, Latitude 36° 27.5' N) in Tokai-mura which is located in the eastern part of Japan and faces the Pacific Ocean (Fig.1). These basins (three points were shown by the marker of "○" in Fig.2) were regularly monitored that they contain proper amounts of water to collect both wet and dry depositions. Water in the basin was collected every month and evaporated to dryness without ebullition to obtain residual samples. Obtained residual sample was grinded by agate mortar and put into a measurement vessel.

Soil samples were collected in Tokai-mura (five points were showed by the marker of "●" in Fig.2) and dried 6 hours in an electric oven at 110℃. The obtained dried sample was put into a measurement vessel. A part of dried sample was sieved by a 200 mesh sieve, then 200 mesh pass fraction (fine part) was put into a measurement vessel.

2.2. Determination of radionuclides

Radionuclides in the residual samples and soil samples were measured with a well-type Ge detector. The typical measurement time was 200,000s. The target radionuclides were ^{7}Be, ^{40}K, ^{210}Pb and ^{137}Cs. It has been reported for the deposition samples at Tokai-mura that the proportion of ^{226}Ra-supported ^{210}Pb, which is derived from ^{226}Ra in soil in residual sample, to the unsupported ^{210}Pb is very small [4]. Therefore, this fraction was not taken into consideration in this study. Those radionuclides were identified by γ-ray spectrometry using Ge detector. Calibration of Ge detector was done using commercial mixed radioactive standard solution.

2.3. Determination of stable elements

A part of grinded sample (about 20 mg for short irradiation, about 10 mg of long irradiation) was packed in a small polyethylene bag (size: 10mm×20mm, washed 6M-nitric acid, deionized water and dried). Every sample was packed double using a poly-sealer. Standard samples were made up in the same way using GSJ-JB-1 (basalt) [5-7], GSJ-JG-1 (ganodiorite) [5-7], NIST-SRM-1648 (Urban Particulate Matter) [8] (using as a multi-standard), and also using dried a portion of standard solution which was made up to pure chemicals. Nuclear data for neutron activation analysis of stable elements were shown in Table 1.

Short irradiation (determination of Mg, Al, Cl, Ca, Ti, V, Mn)

The prepared sample was irradiated for 10 second by a pneumatic system with JRR-4 whose thermal neutron flux was 4.0×10^{13} n cm^{-2} s^{-1}. A rabbit (irradiation capsule) was open, the irradiated sample was taken out, and then polyethylene bag outside was exchanged to new one packed using a poly-sealer. First measurement (measurement time: live time 100s) was started after 2 to 10 minutes of cooling time. Second measurement (measurement time: live time 500s) was started after 11 to 30 minutes of cooling time. Determination of stable elements was done by comparison of radioactivity between the sample and the standard under the same conditions of irradiation and measurement.

Long irradiation (determination of Na, K, Sc, Cr, Fe, Co, Br, Rb, Sb, Cs, La, Ce, Eu, Hf, Ta, Th, U)

The prepared sample was irradiated for 10 minutes by an S-pipe system with JRR-4 whose thermal neutron flux was 5.0×10^{13} n cm^{-2} s^{-1}. A rabbit (irradiation capsule) was open, the irradiated sample was taken out, and then polyethylene bag outside was exchanged to new one packed using a poly-sealer. First measurement (measurement time: live time 4,000s) was started after 48 to 80 hours of cooling time. Second measurement (measurement time: live time 20,000s) was started after 80 to 270 hours of cooling time. Third measurement (measurement time: live time 40,000s) was started after 20 to 40 days of cooling time. Fourth measurement (measurement time: live time 80,000s) was started after 56 to 100 days of cooling time. Determination of stable elements was done by comparison of radioactivity between the sample and the standard under the same conditions of irradiation and measurement. Elements (Br, Rb, Sb, Cs, La, Ce, Eu) were determined by the measurement of the nuclides which were produce by (n, γ) reaction of stable element and also fission of U in the sample. In this case, the measurement value of sample was included the value from activated stable element and the value of fission products from U in the irradiated sample, the subtract from the measurement of sample to the value of fission products from U in the irradiated sample was needed. The result, in our case, La and Ce needed correction

of the effect. Therefore, the correction was done by determination of U in sample and measurements of irradiated standard sample. But in the case of undetected U in sample, the correction of the effect was not done.

3. RESULTS AND DISCUSSION

3.1.Deposition and concentration of radionuclides

Deposition weight and deposition of radionuclides [9]

Table 2-4 shows the data of deposition of radionuclides at 1.5m, 4m, 10m, respectively. Time variations of a) dry weight, b) ^{7}Be, c) ^{40}K, d) ^{137}Cs and e) ^{210}Pb of monthly deposition at 1.5m, 4m,10m are shown in Fig.3-5. The deposition weight (a) of Fig.3-5) shows very clear seasonal variations with peaks in springs from February to April, and also in May in some years. These peaks seem to be caused by the yellow sand, so-called Kosa. Frequent occurrence of the Kosa events has been reported [10,11] for March and April 2000, for instance, for which the deposition (dry) weight shows the highest peaks. However, we have not yet thoroughly investigated the relation between the peaks and Kosa events.

Monthly deposition of ^{40}K is shown in c) of Fig.3-5. The deposition of ^{40}K shows seasonal variations with peaks in the spring. The deposition of ^{137}Cs (d) of Fig.3-5) also shows similar temporal variations as ^{40}K. Both of the depositions of ^{40}K and ^{137}Cs have high correlations with the deposition weights and with each other. The depositions of ^{40}K and ^{137}Cs have a low dependency on the monthly precipitation. This implies that dry deposition of larger particles, whose deposition does not substantially depend on the precipitation, is a dominant factor for the deposition (dry) weight and the ^{40}K and ^{137}Cs depositions.

Variation of monthly deposition of ^{210}Pb is shown in e) of Fig.3-5. The deposition of ^{210}Pb as well as that of ^{7}Be (b) of Fig 3-5) shows peaks in the springs and autumns. For example, correlations of deposition dry weight to deposition of a) ^{137}Cs or b) ^{7}Be at point R were shown in Fig.6. The depositions of ^{7}Be and ^{210}Pb have only weak correlation with the deposition weight, implying that these two nuclides are carried not mainly by larger particles but by smaller particles which have negligible contribution to the deposition weight. The depositions of ^{7}Be and ^{210}Pb have relatively high correlation with monthly precipitation. Wet deposition was dominant for deposition of smaller particles. Therefore, it can be said that the depositions of ^{7}Be and ^{210}Pb are mainly caused by wet deposition.

The level of ^{210}Pb deposition observed on the Pacific side of eastern Japan in this study is much lower than that measured on the Japan sea side [12]. The deposition of ^{210}Pb measured on the Japan sea side (at Tatsunokuchi, Ishikawa pref.) has sharp peaks often more than 200 Bq m^{-2} $month^{-1}$ in the winter, which is about one order of magnitude larger than the above-mentioned spring peaks of the Pacific side. It is clear that the large winter peaks are due to the strong winter monsoon directly from the Siberian continent to the Japan sea side and due to the heavy snowfall there. This scavenging process in addition to the dry weather of Tokai-mura during winter accounts for the present result that the ^{210}Pb deposition at Tokai-mura does not have peaks in winters. It can also be said that spring is the season when the Pacific side of eastern Japan is most directly affected by continental air masses with less scavenging during advection.

Concentration of radionuclides

The concept of 'concentration' is very useful in many cases when, for instance, one tries to guess or determine the origin of the deposited material. Tables 5-7 show the concentration of radionuclides in deposition samples at 1.5m, 4m, 10m, respectively. Table 8 shows concentration of radionuclides in soil samples at Tokai-mura.

3.2. Deposition and concentration of stable elements

Table 9 shows deposition of stable elements in deposition samples at Tokai-mura from Sep. 1993 to Oct. 1995. Most of stable elements in deposition sample show clear seasonal variations with peaks in springs from February toApril, and also in May in some years. Their seasonal variations are the same as those of radionuclides. Table 10 shows concentration of stable elements in deposition at Tokai-mura from Sep. 1993 to Oct. 1995 and those in sieved soil samples.

3.3 Correlation analysis of radionuclides and stable elements

3.3.1 Correlation analysis of deposition or concentration of radionuclides or stable elements between three sampling points (height 1.5m, 4m, 10m) in Tokai-mura

At March 1994 and April 1994, sampling period of point P is different from that of point Q and R for circumstances of sampling point. Table 11 shows slope of linear correlation and correlation coefficient between depositions of radionuclides at three sampling points (height: 1.5m, 4m, 10m) in Tokai-mura. For example, correlation of deposition of a) ^{7}Be and b) ^{40}K among three sampling points were shown in Fig7. Table 12 shows these of stable elements at three sampling points. Table 13 shows slope of linear correlation and correlation coefficient between concentrations of radionuclides at three sampling points (height: 1.5m, 4m, 10m) in Tokai-mura. Table 14 shows these of stable elements at three sampling points.

If sampling times are identical, correlations of deposition of radionuclides (^{7}Be, ^{40}K, ^{137}Cs and ^{210}Pb) among three sampling points (height: 1.5m, 4m, 10m) are good (correlation coefficient is high value). In stable elements, except for Cr and Sb, there are good correlations.

3.3.2 Correlation analysis between deposition or concentration of radionuclides and/or stable elements (sampling period: Sep. 1993-Oct. 1995) at three sampling points (height 1.5m, 4m, 10m) in Tokai-mura

Table 15 –17 show correlation coefficient between depositions or concentration of radionuclides and/or stable elements at Q (height:1.5m), P (height:4m) and R (height:10m) points in Tokai-mura, respectively. Table 18-20 shows correlation coefficient between depositions or concentration of radionuclides (sampling period: Sept. 1993-March 2001) at Q (height:1.5m), P (height:4m) and R (height:10m) point in Tokai-mura, respectively.

Most of the correlation pairs have higher values of correlation coefficient for deposition based correlation than for concentration based correlation. Deposition of ^{40}K and ^{137}Cs have good correlation with deposition weight and deposition of soil component elements such as Al, Sc, V, Mn, Fe, Co, Rb, Cs, La, Eu, Hf and Th (these are thought to be soil origin elements) and each other. Also, concentration based correlation coefficients between Al, Sc, Mn, La, Eu and Th are high value. Na, Cl and Br (both of deposition and concentration based correlation

coefficient) have high values with each other.

4. SUMMARY

This research is summarized as follows.

(1) Clear seasonal variations, which can be attributed to the meteorological conditions affecting the transport and deposition processes, were found in the fallout data observed.

(2) The deposition weight showed very clear seasonal variations with peaks in springs from February to April, and also in May in some years. These peaks seem to be caused by the yellow sand, so-called Kosa.

(3) Monthly deposition of ^{40}K has seasonal variations with peaks in spring. The deposition of ^{137}Cs also shows similar temporal variations as ^{40}K.

(4) Depositions of ^{210}Pb and ^{7}Be show peaks in springs and autumns.

(5) Most of stable elements in the deposition samples have clear seasonal variations with peaks in springs from February to April, and also in May in some years.

(6) If sampling time are identical, correlations of deposition of radionuclides (^{7}Be, ^{40}K, ^{137}Cs and ^{210}Pb) and most of stable elements between three sampling points (height: 1.5m, 4m, 10m) are good.

(7) Deposition of ^{40}K and ^{137}Cs have good correlations with deposition weight and deposition of soil component elements. Also, concentration based correlation coefficients between Al, Sc, Mn, La, Eu and Th are high. Na, Cl and Br (both of deposition and concentration based correlation coefficient) have high values with each other.

(8) A set of long-term monthly fallout samples and radionuclides data have been obtained for further studies to draw a full illustration of origination, transport and deposition processes with other approaches such as numerical analyses using long-range atmospheric transport simulations or elemental analyses.

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Table 1 Nuclear data for neutron activation analysis of stable elements

Element	Target Nuclides	Abandance (%)	Product Nuclides	Half life	Measurement γ-ray Energy (keV)	Intensity (%)
Short Irradiation (10s)						
Mg	Mg-26	11.29	Mg-27	9.46m	1014.4	29
Al	Al-27	100	Al-28	2.24m	1778.9	100
Cl	Cl-37	24.47	Cl-38	37.3m	2167.6	42.0
Ca	Ca-48	0.185	Ca-49	8.72m	3084.4	91.7
Ti	Ti-50	5.25	Ti-51	5.76m	320.08	93.0
V	V-51	99.75	V-52	3.75m	1434.06	100
Mn	Mn-55	100	Mn-56	2.579h	1810.72	27.2
Long Irradiation (10min)						
Na	Na-23	100	Na-24	15.02h	2754.1	99.92
K	K-41	6.77	K-42	12.36h	1524.7	17.9
Sc	Sc-45	100	Sc-46	83.8d	889.25	100
Cr	Cr-50	4.31	Cr-51	27.70d	320.08	9.83
Fe	Fe-58	0.21	Fe-59	44.6d	1291.56	43.2
Co	Co-59	100	Co-60	5.271y	1332.50	99.98
Br	Br-81	49.31	Br-82	35.3h	776.49	83.5
Rb	Rb-85	72.15	Rb-86	18.66d	1076.63	8.76
Sb	Sb-123	42.75	Sb-124	60.02d	1691.02	48.8
Cs	Cs-133	100	Cs-134	2.062y	795.85	85.4
La	La-139	99.911	La-140	40.27h	1596.49	95.4
Ce	Ce-140	88.48	Ce-141	32.50d	145.44	48.4
Eu	Eu-151	47.7	Eu-152	13.3y	1408.01	20.85
Hf	Hf-180	35.22	Hf-181	42.4d	482.0	85.5
Ta	Ta-181	99.9877	Ta-182	115d	1221.42	27.4
Th	Th-232	100	Th-233	22.3m		
			(Pa-233)	27.0d	300.12	6.33
U	U-238	99.2741	U-239	23.54m		
			(Np-239)	2.355d	228.19	10.7
			( ):Daughter Nuclide			

Table 2 Deposition of radionuclides at Tokai-mura (1.5m)

Sample	Hight	Year	Month	Sampling					Weight			Pb-210(46.50keV)			Be-7(477.59keV)			Cs-137(661.65keV)			K-40(1460.80keV)		
				Start Date	Start Time	End Date	End Time	Period					Radioactivity	Error		Radioactivity	Error		Radioactivity	Error		Radioactivity	Error
	(m)							(d)	(g dry)	(g dry m^{-2})	(g dry m^{-2} d^{-1})	Det.	(Bq m^{-2} d^{-1})	(Bq m^{-2} d^{-1})	Det.	(Bq m^{-2} d^{-1})	(Bq m^{-2} d^{-1})	Det.	(Bq m^{-2} d^{-1})	(Bq m^{-2} d^{-1})	Det.	(Bq m^{-2} d^{-1})	(Bq m^{-2} d^{-1})
Q9309	1.5	1993	9	1993.9.2	11:10	1993.9.30	10:35	27.9757	1.1212	2.2424	0.08016	*	0.3514	0.0024	*	4.720	0.117				*	0.0376	0.0032
Q9310	1.5	1993	10	1993.9.30	10:35	1993.11.1	11:10	32.0243	1.4097	2.8194	0.08804	*	0.3753	0.0024	*	5.295	0.092	*	0.00043	0.00011	*	0.0383	0.0029
Q9311	1.5	1993	11	1993.11.1	11:10	1993.12.1	10:10	29.9583	1.8242	3.6484	0.12178	*	0.2833	0.0023	*	4.576	0.167	*	0.00074	0.00013	*	0.0626	0.0035
Q9312	1.5	1993	12	1993.12.1	10:10	1994.1.5	11:35	35.0590	0.9263	1.8526	0.05284	*	0.2433	0.0018	*	3.305	0.101	*	0.00042	0.00010	*	0.0265	0.0025
Q9401	1.5	1994	1	1994.1.5	11:35	1994.2.1	13:35	27.0833	1.3710	2.7420	0.10124	*	0.5610	0.0032	*	4.754	0.111	*	0.00119	0.00015	*	0.0598	0.0037
Q9402	1.5	1994	2	1994.2.1	13:35	1994.2.28	11:25	26.9097	1.2500	2.5000	0.09290	*	0.3426	0.0025	*	3.401	0.083	*	0.00104	0.00014	*	0.0532	0.0036
Q9403	1.5	1994	3	1994.2.28	11:25	1994.4.8	14:10	39.1146	9.0574	18.1148	0.46312	*	0.6447	0.0066	*	4.526	0.161	*	0.00505	0.00043	*	0.2145	0.0104
Q9404	1.5	1994	4	1994.4.8	14:10	1994.4.29	8:47	20.7757	2.8016	5.6032	0.26970	*	0.3029	0.0041	*	3.078	0.093	*	0.00285	0.00032	*	0.1208	0.0071
Q9405	1.5	1994	5	1994.4.29	8:47	1994.5.31	10:15	32.0611	3.9833	7.9666	0.24848	*	0.6300	0.0073	*	7.300	0.188	*	0.00173	0.00047	*	0.1417	0.0108
Q9406	1.5	1994	6	1994.5.31	10:15	1994.7.1	10:05	30.9931	1.3714	2.7428	0.08850	*	0.4092	0.0027	*	4.420	0.012				*	0.0381	0.0035
Q9407	1.5	1994	7	1994.7.1	10:05	1994.8.1	10:30	31.0174	1.0291	2.0582	0.06636	*	0.1899	0.0018	*	1.563	0.027				*	0.0285	0.0028
Q9408	1.5	1994	8	1994.8.1	10:30	1994.8.31	9:55	29.9757	1.0659	2.1318	0.07112	*	0.1920	0.0019	*	4.953	0.175	*	0.00036	0.00012	*	0.0382	0.0030
Q9409	1.5	1994	9	1994.8.31	9:55	1994.9.30	11:10	30.0521	1.6276	3.2552	0.10832	*	0.7699	0.0033	*	11.674	0.204	*	0.00040	0.00013	*	0.0663	0.0035
Q9410	1.5	1994	10	1994.9.30	11:10	1994.10.31	10:25	30.9688	0.9808	1.9616	0.06334	*	0.3359	0.0021	*	3.916	0.110				*	0.0333	0.0028
Q9411	1.5	1994	11	1994.10.31	10:25	1994.12.1	10:20	30.9965	0.6663	1.3326	0.04299	*	0.2039	0.0018	*	2.262	0.082				*	0.0212	0.0026
Q9412	1.5	1994	12	1994.12.1	10:20	1995.1.5	10:10	34.9931	0.8101	1.6202	0.04630	*	0.2675	0.0018	*	2.843	0.063				*	0.0235	0.0024
Q9501	1.5	1995	1	1995.1.5	10:10	1995.2.1	11:35	27.0590	0.8836	1.7672	0.06531	*	0.2628	0.0021	*	2.322	0.058	*	0.00056	0.00013	*	0.0410	0.0032
Q9502	1.5	1995	2	1995.2.1	11:35	1995.2.28	10:50	26.9688	0.9169	1.8338	0.06800	*	0.3441	0.0024	*	2.517	0.071	*	0.00057	0.00012	*	0.0432	0.0034
Q9503	1.5	1995	3	1995.2.28	10:50	1995.3.29	10:55	29.0035	2.7291	5.4582	0.18819	*	0.7999	0.0036	*	10.758	0.141	*	0.00332	0.00024	*	0.0937	0.0044
Q9504	1.5	1995	4	1995.3.29	10:55	1995.5.1	10:30	32.9826	3.4674	6.9348	0.21026	*	0.7724	0.0045	*	11.328	0.133	*	0.00245	0.00026	*	0.1044	0.0048
Q9505	1.5	1995	5	1995.5.1	10:30	1995.6.1	11:10	31.0278	2.6942	5.3884	0.17366	*	0.6686	0.0035	*	15.301	0.120	*	0.00124	0.00023	*	0.0922	0.0044
Q9506	1.5	1995	6	1995.6.1	11:10	1995.6.30	15:15	29.1701	1.8673	3.7346	0.12803	*	0.6539	0.0032	*	14.563	0.089	*	0.00090	0.00018	*	0.0746	0.0036
Q9507	1.5	1995	7	1995.6.30	15:15	1995.8.1	10:50	31.8160	0.9971	1.9942	0.06268	*	0.4571	0.0025	*	7.459	0.053				*	0.0256	0.0026
Q9508	1.5	1995	8	1995.8.1	10:50	1995.9.1	10:20	30.9792	1.0240	2.0480	0.06611	*	0.3491	0.0022	*	4.537	0.037	*	0.00055	0.00016	*	0.0403	0.0028
Q9509	1.5	1995	9	1995.9.1	10:20	1995.10.3	11:35	32.0521	1.2120	2.4240	0.07563	*	0.3797	0.0023	*	6.582	0.042	*	0.00052	0.00015	*	0.0404	0.0027
Q9510	1.5	1995	10	1995.10.3	11:35	1995.11.1	9:55	28.9306	0.8644	1.7288	0.05976	*	0.2306	0.0018	*	3.342	0.028	*	0.00080	0.00019	*	0.0252	0.0029
Q9511	1.5	1995	11	1995.11.1	9:55	1995.12.1	10:10	30.0104	0.7878	1.5756	0.05250	*	0.1702	0.0016	*	2.940	0.025	*	0.00051	0.00015	*	0.0313	0.0028
Q9512	1.5	1995	12	1995.12.1	10:10	1996.1.5	11:15	35.0451	1.3738	2.7476	0.07840	*	0.0658	0.0013	*	0.507	0.009	*	0.00070	0.00015	*	0.0446	0.0027
Q9601	1.5	1996	1	1996.1.5	11:15	1996.1.31	15:35	26.1806	1.5455	3.0910	0.11806	*	0.2377	0.0021	*	2.399	0.017	*	0.00161	0.00021	*	0.0669	0.0039
Q9602	1.5	1996	2	1996.1.31	15:35	1996.3.1	14:45	29.9653	4.4544	8.9088	0.29730	*	0.2880	0.0036	*	3.945	0.030	*	0.00602	0.00035	*	0.1493	0.0060
Q9603	1.5	1996	3	1996.3.1	14:45	1996.4.1	15:50	31.0451	2.0869	4.1738	0.13444	*	0.5643	0.0028	*	8.990	0.029	*	0.00218	0.00020	*	0.0730	0.0036
Q9604	1.5	1996	4	1996.4.1	15:50	1996.4.30	10:00	28.7569	2.2648	4.5296	0.15751	*	0.6193	0.0034	*	9.090	0.025	*	0.00279	0.00022	*	0.0967	0.0039
Q9605	1.5	1996	5	1996.4.30	10:00	1996.5.31	10:15	31.0104	2.3557	4.7114	0.15193	*	0.6630	0.0035	*	14.099	0.028	*	0.00151	0.00025	*	0.0750	0.0041
Q9606	1.5	1996	6	1996.5.31	10:15	1996.7.1	10:10	30.9965	1.4428	2.8856	0.09309	*	0.4604	0.0024	*	5.606	0.078	*	0.00060	0.00016	*	0.0426	0.0031
Q9607	1.5	1996	7	1996.7.1	10:10	1996.8.1	12:05	31.0799	1.1413	2.2826	0.07344	*	0.3187	0.0022	*	5.950	0.062	*	0.00063	0.00017	*	0.0691	0.0032
Q9608	1.5	1996	8	1996.8.1	12:05	1996.9.3	17:15	33.2153	1.2953	2.5906	0.07799	*	0.1418	0.0014	*	1.903	0.031	*	0.00079	0.00016	*	0.0451	0.0029
Q9609	1.5	1996	9	1996.9.3	17:05	1996.10.2	10:30	28.7188	3.7739	7.5478	0.26282	*	0.4796	0.0037	*	9.059	0.061	*	0.00118	0.00026	*	0.1782	0.0055
Q9610	1.5	1996	10	1996.10.2	10:30	1996.11.3	10:05	31.9826	1.3323	2.6646	0.08331	*	0.3882	0.0022	*	6.683	0.037				*	0.0403	0.0029
Q9611	1.5	1996	11	1996.11.3	10:05	1996.12.2	11:25	29.0556	0.8874	1.7748	0.06108	*	0.3748	0.0024	*	9.389	0.036	*	0.00059	0.00018	*	0.0784	0.0034
Q9612	1.5	1996	12	1996.12.2	11:25	1997.1.6	10:50	34.9757	1.0916	2.1832	0.06242	*	0.2405	0.0017	*	4.753	0.020	*	0.00044	0.00013	*	0.0386	0.0026
Q9701	1.5	1997	1	1997.1.6	10:50	1997.1.31	14:20	25.1458	0.8592	1.7184	0.06834	*	0.1055	0.0017	*	0.611	0.008	*	0.00072	0.00020	*	0.0847	0.0038
Q9702	1.5	1997	2	1997.1.31	14:20	1997.3.2	9:55	29.8160	4.3427	8.6854	0.29130	*	0.3227	0.0032	*	3.456	0.018	*	0.00487	0.00033	*	0.1123	0.0058
Q9703	1.5	1997	3	1997.3.2	9:55	1997.3.29	10:00	27.0035	3.2620	6.5240	0.24160	*	0.4647	0.0040	*	6.467	0.022	*	0.00402	0.00031	*	0.1712	0.0056
Q9704	1.5	1997	4	1997.3.29	10:00	1997.5.1	10:25	33.0174	2.5808	5.1616	0.15633	*	0.6590	0.0040	*	10.068	0.022	*	0.00136	0.00022	*	0.1171	0.0043
Q9705	1.5	1997	5	1997.5.1	10:25	1997.6.2	10:30	32.0035	4.5107	9.0214	0.28189	*	0.7772	0.0056	*	14.476	0.087	*	0.00327	0.00038	*	0.1314	0.0080
Q9706	1.5	1997	6	1997.6.2	10:30	1997.7.1	10:50	29.0139	1.0188	2.0376	0.07023	*	0.2421	0.0021	*	3.444	0.028				*	0.0359	0.0038
Q9707	1.5	1997	7	1997.7.1	10:50	1997.7.31	10:00	29.9653	1.1741	2.3482	0.07836	*	0.2214	0.0020	*	4.339	0.025	*	0.00055	0.00018	*	0.0419	0.0039
Q9708	1.5	1997	8	1997.7.31	10:00	1997.8.28	10:30	28.0208	1.1321	2.2642	0.08080	*	0.2902	0.0021	*	4.813	0.024	*	0.00057	0.00018	*	0.0411	0.0033
Q9709	1.5	1997	9	1997.8.28	10:30	1997.10.1	10:40	34.0069	2.1584	4.3168	0.12694	*	0.3241	0.0024	*	8.501	0.024				*	0.0954	0.0035
Q9710	1.5	1997	10	1997.10.1	10:40	1997.10.31	9:55	29.9688	1.0373	2.0746	0.06923	*	0.1948	0.0017	*	3.243	0.016				*	0.0323	0.0029
Q9711	1.5	1997	11	1997.10.31	9:55	1997.12.1	13:50	31.1632	1.3757	2.7514	0.08829	*	0.4550	0.0028	*	10.901	0.023				*	0.0481	0.0038

Q9712	1.5	1997	12	1997.12.1	13:50	1998.1.5	10:35	34.8646	0.7067	1.4134	0.04054	*	0.2341	0.0018	*	2.982	0.012				*	0.0260	0.0030
Q9801	1.5	1998	1	1998.1.5	10:35	1998.1.31	15:10	26.1910	1.7570	3.5140	0.13417	*	0.3990	0.0028	*	5.607	0.017				*	0.0711	0.0046
Q9802	1.5	1998	2	1998.1.31	15:10	1998.2.27	15:35	27.0174	1.3951	2.7902	0.10327	*	0.4355	0.0028	*	4.360	0.018	*	0.00076	0.00019	*	0.0662	0.0044
Q9803	1.5	1998	3	1998.2.27	15:35	1998.3.27	14:30	27.9549	2.1943	4.3886	0.15699	*	0.5261	0.0034	*	6.657	0.020	*	0.00134	0.00022	*	0.0916	0.0050
Q9804	1.5	1998	4	1998.3.27	14:30	1998.4.30	10:40	33.8403	2.3619	4.7238	0.13959	*	0.6779	0.0038	*	10.364	0.026	*	0.00135	0.00020	*	0.0785	0.0044
Q9805	1.5	1998	5	1998.4.30	10:40	1998.6.1	10:45	32.0035	2.8529	5.7058	0.17829	*	0.5127	0.0047	*	10.563	0.030	*	0.00099	0.00031	*	0.0938	0.0067
Q9806	1.5	1998	6	1998.6.1	10:45	1998.6.30	10:25	28.9861	1.3396	2.6792	0.09243	*	0.4352	0.0028	*	9.629	0.024				*	0.0479	0.0041
Q9807	1.5	1998	7	1998.6.30	10:25	1998.8.1	10:05	31.9861	1.6398	3.2796	0.10253	*	0.4237	0.0027	*	8.522	0.022	*	0.00064	0.00018	*	0.0557	0.0038
Q9808	1.5	1998	8	1998.8.1	10:05	1998.8.31	11:10	30.0451	1.1567	2.3134	0.07700	*	0.3845	0.0024	*	6.257	0.020				*	0.0485	0.0036
Q9809	1.5	1998	9	1998.8.31	11:10	1998.10.1	17:15	31.2535	2.2217	4.4434	0.14217	*	0.3326	0.0026	*	9.502	0.025	*	0.00065	0.00018	*	0.0657	0.0040
Q9810	1.5	1998	10	1998.10.1	17:15	1998.10.31	10:35	29.7222	1.9217	3.8434	0.12931	*	0.4469	0.0033	*	8.233	0.022				*	0.0569	0.0042
Q9811	1.5	1998	11	1998.10.31	10:35	1998.11.29	9:55	28.9722	0.8164	1.6328	0.05636	*	0.0989	0.0015	*	0.627	0.005				*	0.0211	0.0035
Q9812	1.5	1998	12	1998.11.29	9:55	1998.12.28	15:05	29.2153	0.8882	1.7764	0.06080	*	0.1792	0.0019	*	2.455	0.011	*	0.00103	0.00018	*	0.0467	0.0037
Q9901	1.5	1999	1	1998.12.28	15:05	1999.1.31	14:35	33.9792	0.8940	1.7880	0.05262	*	0.0932	0.0013	*	0.604	0.005	*	0.00048	0.00015	*	0.0277	0.0031
Q9902	1.5	1999	2	1999.1.31	14:35	1999.2.27	13:20	26.9479	1.2839	2.5678	0.09529	*	0.4212	0.0028	*	5.716	0.022	*	0.00112	0.00021	*	0.0624	0.0043
Q9903	1.5	1999	3	1999.2.27	13:20	1999.4.1	15:30	33.0903	2.7588	5.5176	0.16674	*	0.5737	0.0034	*	8.704	0.024	*	0.00250	0.00021	*	0.0886	0.0043
Q9904	1.5	1999	4	1999.4.1	15:30	1999.5.1	11:45	29.8438	3.6409	7.2818	0.24400	*	0.7269	0.0046	*	18.180	0.035	*	0.00187	0.00025	*	0.1420	0.0057
Q9905	1.5	1999	5	1999.5.1	11:45	1999.6.2	10:15	31.9375	2.2186	4.4372	0.13893	*	0.4975	0.0035	*	8.650	0.024	*	0.00102	0.00022	*	0.0669	0.0046
Q9906	1.5	1999	6	1999.6.2	10:15	1999.7.1	10:55	29.0278	1.4602	2.9204	0.10061	*	0.5520	0.0031	*	13.581	0.031	*	0.00059	0.00019	*	0.0540	0.0040
Q9907	1.5	1999	7	1999.7.1	10:55	1999.7.30	15:00	29.1701	1.3260	2.6520	0.09091	*	0.3725	0.0025	*	5.157	0.017				*	0.0396	0.0037
Q9908	1.5	1999	8	1999.7.30	15:00	1999.9.4	14:25	35.9757	1.9467	3.8934	0.10822	*	0.3118	0.0021	*	1.704	0.021	*	0.00054	0.00016	*	0.0475	0.0033
Q9909	1.5	1999	9	1999.9.4	14:25	1999.10.2	10:25	27.8333	1.8104	3.6208	0.13009	*	0.2720	0.0024	*	3.257	0.027	*	0.00072	0.00021	*	0.0708	0.0044
Q9910	1.5	1999	10	1999.10.2	10:25	1999.11.2	14:00	31.1493	1.6391	3.2782	0.10524	*	0.3168	0.0023	*	9.954	0.038				*	0.0506	0.0037
Q9911	1.5	1999	11	1999.11.2	14:00	1999.12.1	10:55	28.8715	0.7845	1.5690	0.05434	*	0.2480	0.0020	*	4.659	0.023				*	0.0307	0.0035
Q9912	1.5	1999	12	1999.12.1	10:55	1999.12.28	14:30	27.1493	1.0641	2.1282	0.07839	*	0.0554	0.0015	*	0.850	0.010				*	0.0376	0.0039
Q0001	1.5	2000	1	1999.12.28	14:30	2000.2.2	16:00	36.0625	1.3304	2.6608	0.07378	*	0.2795	0.0020	*	3.709	0.014				*	0.0346	0.0030
Q0002	1.5	2000	2	2000.2.2	16:00	2000.2.29	14:35	26.9410	1.2873	2.5746	0.09556	*	0.2593	0.0023	*	2.048	0.010	*	0.00077	0.00020	*	0.0536	0.0042
Q0003	1.5	2000	3	2000.2.29	14:35	2000.3.31	9:50	30.8021	6.9088	13.8176	0.44859	*	0.4890	0.0058	*	5.600	0.025	*	0.00443	0.00053	*	0.1786	0.0103
Q0004	1.5	2000	4	2000.3.31	9:50	2000.4.30	14:30	30.1944	6.5006	13.0012	0.43058	*	0.9494	0.0076	*	15.409	0.040	*	0.00690	0.00054	*	0.2091	0.0103
Q0005	1.5	2000	5	2000.4.30	14:30	2000.6.1	14:35	32.0035	2.5820	5.1640	0.16136	*	0.6160	0.0049	*	11.474	0.029	*	0.00135	0.00032	*	0.1077	0.0067
Q0006	1.5	2000	6	2000.6.1	14:35	2000.6.30	14:40	29.0035	1.2599	2.5198	0.08688	*	0.6070	0.0031	*	10.035	0.026	*	0.00059	0.00019	*	0.0487	0.0037
Q0007	1.5	2000	7	2000.6.30	14:40	2000.8.2	15:00	33.0139	2.2886	4.5772	0.13864	*	0.4753	0.0030	*	5.421	0.017				*	0.0653	0.0039
Q0008	1.5	2000	8	2000.8.2	15:00	2000.9.2	8:05	30.7118	1.0123	2.0246	0.06592	*	0.1281	0.0015	*	1.248	0.007				*	0.0320	0.0033
Q0009	1.5	2000	9	2000.9.2	8:05	2000.9.30	9:25	28.0556	1.7775	3.5550	0.12671	*	0.5042	0.0030	*	7.831	0.027				*	0.0799	0.0040
Q0010	1.5	2000	10	2000.9.30	9:25	2000.11.3	10:25	34.0417	1.2547	2.5094	0.07372	*	0.4902	0.0025	*	7.198	0.020	*	0.00686	0.00023	*	0.0515	0.0030
Q0011	1.5	2000	11	2000.11.3	10:25	2000.12.1	11:40	28.0521	0.9183	1.8366	0.06547	*	0.2555	0.0022	*	3.437	0.013				*	0.0497	0.0035
Q0012	1.5	2000	12	2000.12.1	11:40	2000.12.29	17:40	28.2500	0.9826	1.9652	0.06956	*	0.0994	0.0016	*	0.816	0.006	*	0.00072	0.00019	*	0.0673	0.0038
Q0101	1.5	2001	1	2000.12.29	17:40	2001.2.1	13:55	33.8438	1.6680	3.3360	0.09857	*	0.2726	0.0022	*	4.166	0.013	*	0.00083	0.00017	*	0.0556	0.0038
Q0102	1.5	2001	2	2001.2.1	13:55	2001.3.1	13:20	27.9757	1.5536	3.1072	0.11107	*	0.2673	0.0024	*	2.164	0.010	*	0.00156	0.00021	*	0.0619	0.0044
Q0103	1.5	2001	3	2001.3.1	13:20	2001.3.30	11:05	28.9063	2.2546	4.5092	0.15599	*	0.5346	0.0034	*	6.334	0.017	*	0.00143	0.00022	*	0.0858	0.0048

*: detected

Table 3 Deposition of radionuclides at Tokai-mura (4m)

Sample	Hight	Year	Month	Sampling					Weight			Pb-210(46.50keV)			Be-7(477.59keV)			Cs-137(661.65keV)			K-40(1460.80keV)		
				Start Date	Start Time	End Date	End Time	Period					Radioactivity	Error		Radioactivity	Error		Radioactivity	Error		Radioactivity	Error
	(m)							(d)	(g dry)	(g dry m^{-2})	(g dry m^{-2} d^{-1})	Det.	(Bq m^{-2} d^{-1})	(Bq m^{-2} d^{-1})	Det.	(Bq m^{-2} d^{-1})	(Bq m^{-2} d^{-1})	Det.	(Bq m^{-2} d^{-1})	(Bq m^{-2} d^{-1})	Det.	(Bq m^{-2} d^{-1})	(Bq m^{-2} d^{-1})
P9309	4	1993	9	1993.9.1	10:20	1993.9.30	9:40	28.9722	1.1306	2.2612	0.07805	*	0.4078	0.0025	*	4.688	0.105				*	0.0349	0.0031
P9310	4	1993	10	1993.9.30	9:40	1993.11.1	10:20	32.0278	1.6040	3.2080	0.10016	*	0.3517	0.0025	*	5.216	0.095	*	0.00045	0.00012	*	0.0500	0.0032
P9311	4	1993	11	1993.11.1	10:20	1993.12.1	9:30	29.9653	1.8821	3.7642	0.12562	*	0.2405	0.0021	*	4.311	0.075	*	0.00049	0.00013	*	0.0697	0.0036
P9312	4	1993	12	1993.12.1	9:30	1994.1.5	10:45	35.0521	1.2742	2.5484	0.07270	*	0.2047	0.0017	*	2.796	0.093	*	0.00039	0.00010	*	0.0366	0.0026
P9401	4	1994	1	1994.1.5	10:45	1994.2.1	12:50	27.0868	1.4494	2.8988	0.10702	*	0.4714	0.0029	*	3.827	0.105	*	0.00100	0.00015	*	0.0563	0.0037
P9402	4	1994	2	1994.2.1	12:50	1994.2.28	10:15	26.8924	1.8083	3.6166	0.13448	*	0.4140	0.0030	*	3.326	0.091	*	0.00118	0.00016	*	0.0767	0.0041
P9403	4	1994	3	1994.2.28	10:15	1994.3.18	9:20	17.9618	0.7364	1.4728	0.08200	*	0.3942	0.0032	*	2.501	0.090	*	0.00100	0.00019	*	0.0480	0.0048
P9404	4	1994	4	1994.4.18	11:25	1994.4.29	8:16	10.8688	0.6917	1.3834	0.12728	*	0.2106	0.0038	*	1.580	0.084	*	0.00140	0.00032	*	0.0674	0.0078
P9405	4	1994	5	1994.4.29	8:16	1994.5.31	9:40	32.0583	2.3148	4.6296	0.14441	*	0.2677	0.0038	*	5.528	0.091				*	0.0791	0.0065
P9406	4	1994	6	1994.5.31	9:40	1994.7.1	9:25	30.9896	1.4411	2.8822	0.09301	*	0.3838	0.0026	*	4.440	0.011	*	0.00064	0.00015	*	0.0458	0.0033
P9407	4	1994	7	1994.7.1	9:25	1994.8.1	9:55	31.0208	1.0796	2.1592	0.06960	*	0.1928	0.0018	*	1.540	0.026	*	0.00048	0.00012	*	0.0356	0.0030
P9408	4	1994	8	1994.8.1	9:55	1994.8.31	9:15	29.9722	1.2206	2.4412	0.08145	*	0.1986	0.0019	*	4.541	0.167	*	0.00055	0.00012	*	0.0406	0.0031
P9409	4	1994	9	1994.8.31	9:15	1994.9.30	10:10	30.0382	1.5882	3.1764	0.10575	*	0.5811	0.0029	*	10.248	0.179	*	0.00046	0.00012	*	0.0560	0.0034
P9410	4	1994	10	1994.9.30	10:10	1994.10.31	9:55	30.9896	1.1095	2.2190	0.07160	*	0.3354	0.0022	*	3.748	0.110				*	0.0337	0.0029
P9411	4	1994	11	1994.10.31	9:50	1994.12.1	9:45	30.9965	0.6913	1.3826	0.04460	*	0.2204	0.0018	*	2.468	0.080	*	0.00038	0.00011	*	0.0246	0.0026
P9412	4	1994	12	1994.12.1	9:45	1995.1.5	9:25	34.9861	1.2772	2.5544	0.07301	*	0.2757	0.0020	*	2.841	0.065	*	0.00049	0.00011	*	0.0460	0.0029
P9501	4	1995	1	1995.1.5	9:25	1995.2.1	12:05	27.1111	1.2704	2.5408	0.09372	*	0.2843	0.0024	*	2.295	0.058	*	0.00084	0.00014	*	0.0601	0.0039
P9502	4	1995	2	1995.2.1	12:05	1995.2.28	10:30	26.9340	1.6205	3.2410	0.12033	*	0.3517	0.0024	*	3.545	0.111	*	0.00148	0.00021	*	0.0608	0.0037
P9503	4	1995	3	1995.2.28	10:30	1995.3.29	10:15	28.9896	4.0365	8.0730	0.27848	*	0.8847	0.0055	*	7.591	0.124	*	0.00219	0.00025	*	0.1715	0.0069
P9504	4	1995	4	1995.3.29	10:15	1995.5.1	9:38	32.9743	6.4725	12.9450	0.39258	*	0.7878	0.0071	*	10.297	0.189	*	0.00344	0.00050	*	0.1856	0.0093
P9505	4	1995	5	1995.5.1	9:38	1995.6.1	10:05	31.0188	2.8816	5.7632	0.18580	*	0.5473	0.0036	*	13.052	0.104	*	0.00199	0.00022	*	0.1349	0.0047
P9506	4	1995	6	1995.6.1	10:05	1995.6.30	14:30	29.1840	1.3426	2.6852	0.09201	*	0.5082	0.0027	*	13.117	0.086	*	0.00069	0.00016	*	0.0551	0.0033
P9507	4	1995	7	1995.6.30	14:30	1995.8.1	10:20	31.8264	1.5165	3.0330	0.09530	*	0.5820	0.0033	*	8.232	0.058				*	0.0352	0.0030
P9508	4	1995	8	1995.8.1	10:20	1995.9.1	9:45	30.9757	1.1664	2.3328	0.07531	*	0.3420	0.0022	*	4.488	0.036	*	0.00050	0.00015	*	0.0424	0.0028
P9509	4	1995	9	1995.9.1	9:45	1995.10.3	10:40	32.0382	1.1171	2.2342	0.06974	*	0.3213	0.0023	*	6.308	0.040	*	0.00067	0.00015	*	0.0393	0.0027
P9510	4	1995	10	1995.10.3	10:40	1995.11.1	9:10	28.9375	0.9341	1.8682	0.06456	*	0.2246	0.0019	*	3.267	0.026	*	0.00069	0.00017	*	0.0334	0.0028
P9511	4	1995	11	1995.11.1	9:10	1995.12.1	9:40	30.0208	1.2365	2.4730	0.08238	*	0.1929	0.0017	*	3.188	0.023	*	0.00083	0.00017	*	0.0493	0.0031
P9512	4	1995	12	1995.12.1	9:40	1996.1.5	11:35	35.0799	1.5904	3.1808	0.09067	*	0.0647	0.0011	*	0.376	0.008	*	0.00068	0.00015	*	0.0539	0.0029
P9601	4	1996	1	1996.1.5	11:35	1996.1.31	14:30	26.1215	2.5013	5.0026	0.19151	*	0.2714	0.0028	*	2.417	0.018	*	0.00203	0.00024	*	0.1144	0.0046
P9602	4	1996	2	1996.1.31	14:30	1996.3.1	14:10	29.9861	7.0698	14.1396	0.47154	*	0.2945	0.0041	*	3.417	0.026	*	0.00862	0.00054	*	0.2104	0.0093
P9603	4	1996	3	1996.3.1	14:10	1996.4.1	15:25	31.0521	2.2833	4.5666	0.14706	*	0.5190	0.0046	*	8.948	0.028	*	0.00173	0.00019	*	0.0889	0.0036
P9604	4	1996	4	1996.4.1	15:25	1996.4.30	9:25	28.7500	2.4625	4.9250	0.17130	*	0.5566	0.0030	*	8.575	0.025	*	0.00287	0.00023	*	0.0956	0.0042
P9605	4	1996	5	1996.4.30	9:25	1996.5.31	9:30	31.0035	2.8112	5.6224	0.18135	*	0.6018	0.0042	*	12.994	0.027	*	0.00169	0.00024	*	0.0910	0.0043
P9606	4	1996	6	1996.5.31	9:30	1996.7.1	9:25	30.9965	1.9623	3.9246	0.12661	*	0.4580	0.0030	*	5.264	0.076	*	0.00078	0.00021	*	0.1069	0.0039
P9607	4	1996	7	1996.7.1	9:25	1996.8.1	11:35	31.0903	0.9706	1.9412	0.06244	*	0.2605	0.0018	*	5.680	0.061	*	0.00073	0.00015	*	0.0327	0.0028
P9608	4	1996	8	1996.8.1	11:35	1996.9.3	17:55	33.2639	1.5258	3.0516	0.09174	*	0.1706	0.0018	*	1.763	0.030	*	0.00080	0.00017	*	0.0691	0.0032
P9609	4	1996	9	1996.9.3	17:55	1996.10.2	9:15	28.6389	3.3744	6.7488	0.23565	*	0.3561	0.0026	*	8.593	0.058	*	0.00072	0.00020	*	0.1064	0.0046
P9610	4	1996	10	1996.10.2	9:15	1996.11.3	9:35	32.0139	1.3348	2.6696	0.08339	*	0.4150	0.0024	*	6.795	0.035				*	0.0761	0.0032
P9611	4	1996	11	1996.11.3	9:35	1996.12.2	14:05	29.1875	1.2589	2.5178	0.08626	*	0.3074	0.0021	*	8.589	0.036	*	0.00057	0.00017	*	0.0450	0.0032
P9612	4	1996	12	1996.12.2	14:05	1997.1.6	10:05	34.8333	1.6489	3.2978	0.09467	*	0.2976	0.0022	*	5.103	0.021	*	0.00078	0.00016	*	0.0934	0.0034
P9701	4	1997	1	1997.1.6	10:05	1997.1.31	13:35	25.1458	1.1240	2.2480	0.08940	*	0.0900	0.0015	*	0.530	0.008	*	0.00058	0.00019	*	0.0606	0.0037
P9702	4	1997	2	1997.1.31	13:35	1997.3.2	9:15	29.8194	3.1818	6.3636	0.21340	*	0.3511	0.0041	*	3.275	0.017	*	0.00334	0.00035	*	0.2033	0.0069
P9703	4	1997	3	1997.3.2	9:15	1997.3.29	9:25	27.0069	2.9232	5.8464	0.21648	*	0.4886	0.0038	*	6.616	0.023	*	0.00260	0.00027	*	0.1572	0.0053
P9704	4	1997	4	1997.3.29	9:25	1997.5.1	9:45	33.0139	3.0103	6.0206	0.18237	*	0.4869	0.0038	*	8.218	0.020	*	0.00104	0.00023	*	0.1338	0.0046
P9705	4	1997	5	1997.5.1	9:45	1997.6.2	9:30	31.9896	3.0919	6.1838	0.19331	*	0.8567	0.0088	*	13.686	0.120	*	0.00681	0.00071	*	0.2318	0.0147
P9706	4	1997	6	1997.6.2	9:30	1997.7.1	10:05	29.0243	2.0639	4.1278	0.14222	*	0.4214	0.0031	*	7.979	0.042				*	0.0593	0.0045
P9707	4	1997	7	1997.7.1	10:05	1997.7.31	9:20	29.9688	1.2040	2.4080	0.08035	*	0.2308	0.0018	*	3.980	0.025	*	0.00052	0.00016	*	0.0433	0.0031
P9708	4	1997	8	1997.7.31	9:20	1997.8.28	9:45	28.0174	1.7373	3.4746	0.12402	*	0.2995	0.0026	*	4.487	0.023	*	0.00073	0.00020	*	0.0601	0.0044
P9709	4	1997	9	1997.8.28	9:45	1997.10.1	10:00	34.0104	1.6738	3.3476	0.09843	*	0.2181	0.0019	*	6.989	0.021				*	0.0476	0.0029
P9710	4	1997	10	1997.10.1	10:00	1997.10.31	9:10	29.9653	1.1375	2.2750	0.07592	*	0.2151	0.0021	*	3.022	0.015				*	0.0336	0.0038
P9711	4	1997	11	1997.10.31	9:10	1997.12.1	10:10	31.0417	1.3842	2.7684	0.08918	*	0.3985	0.0024	*	11.045	0.024				*	0.0497	0.0032

P9712	4	1997	12	1997.12.1	10:10	1998.1.5	10:00	34.9931	0.8435	1.6870	0.04821	*	0.2069	0.0017	*	2.838	0.011				*	0.0559	0.0027
P9801	4	1998	1	1998.1.5	10:00	1998.1.31	13:35	26.1493	1.7447	3.4894	0.13344	*	0.3129	0.0024	*	4.224	0.015	*	0.00059	0.00019	*	0.0950	0.0049
P9802	4	1998	2	1998.1.31	13:35	1998.2.27	15:05	27.0625	1.4571	2.9142	0.10768	*	0.3663	0.0026	*	4.034	0.016				*	0.0845	0.0046
P9803	4	1998	3	1998.2.27	15:05	1998.3.27	13:50	27.9479	3.1279	6.2558	0.22384	*	0.5741	0.0041	*	5.717	0.021	*	0.00172	0.00026	*	0.1219	0.0058
P9804	4	1998	4	1998.3.27	13:50	1998.4.30	9:50	33.8333	2.2622	4.5244	0.13373	*	0.3695	0.0030	*	7.500	0.022	*	0.00122	0.00020	*	0.0921	0.0046
P9805	4	1998	5	1998.4.30	9:50	1998.6.1	9:40	31.9931	3.1725	6.3450	0.19832	*	0.6406	0.0046	*	10.482	0.027	*	0.00196	0.00029	*	0.1153	0.0063
P9806	4	1998	6	1998.6.1	9:40	1998.6.30	9:45	29.0035	1.5462	3.0924	0.10662	*	0.3782	0.0028	*	8.509	0.023				*	0.0622	0.0043
P9807	4	1998	7	1998.6.30	9:45	1998.8.1	9:20	31.9826	1.6860	3.3720	0.10543	*	0.3077	0.0024	*	8.395	0.023				*	0.0635	0.0039
P9808	4	1998	8	1998.8.1	9:20	1998.8.31	10:10	30.0347	0.9342	1.8684	0.06221	*	0.4934	0.0026	*	6.922	0.021	*	0.00056	0.00017	*	0.0396	0.0035
P9809	4	1998	9	1998.8.31	10:10	1998.10.1	15:00	31.2014	2.5982	5.1964	0.16654	*	0.2265	0.0027	*	8.359	0.025				*	0.0751	0.0043
P9810	4	1998	10	1998.10.1	15:00	1998.10.31	9:45	29.7813	1.4028	2.8056	0.09421	*	0.2777	0.0024	*	8.316	0.020				*	0.0555	0.0040
P9811	4	1998	11	1998.10.31	9:45	1998.11.29	10:20	29.0243	0.7285	1.4570	0.05020	*	0.0770	0.0015	*	0.489	0.005				*	0.0275	0.0035
P9812	4	1998	12	1998.11.29	10:20	1998.12.28	14:35	29.1771	1.0214	2.0428	0.07001	*	0.1676	0.0019	*	2.078	0.010	*	0.00129	0.00019	*	0.0527	0.0038
P9901	4	1999	1	1998.12.28	14:35	1999.1.31	13:25	33.9514	1.2375	2.4750	0.07290	*	0.0998	0.0015	*	0.668	0.005	*	0.00083	0.00016	*	0.0480	0.0034
P9902	4	1999	2	1999.1.31	13:35	1999.2.27	12:05	26.9444	1.3399	2.6798	0.09946	*	0.3207	0.0026	*	4.898	0.016	*	0.00102	0.00021	*	0.0580	0.0043
P9903	4	1999	3	1999.2.27	12:05	1999.4.1	14:00	33.0799	2.6402	5.2804	0.15963	*	0.5598	0.0034	*	7.951	0.023	*	0.00182	0.00021	*	0.0934	0.0044
P9904	4	1999	4	1999.4.1	14:00	1999.5.1	9:40	29.8194	3.7781	7.5562	0.25340	*	0.5732	0.0043	*	13.977	0.031	*	0.00113	0.00025	*	0.1380	0.0061
P9905	4	1999	5	1999.5.1	9:40	1999.6.2	9:40	32.0000	3.0269	6.0538	0.18918	*	0.4594	0.0039	*	7.301	0.024	*	0.00128	0.00027	*	0.1552	0.0064
P9906	4	1999	6	1999.6.2	9:40	1999.7.1	10:10	29.0208	1.8291	3.6582	0.12605	*	0.6260	0.0036	*	13.746	0.032	*	0.00094	0.00021	*	0.0582	0.0043
P9907	4	1999	7	1999.7.1	10:10	1999.7.30	14:15	29.1701	2.1370	4.2740	0.14652	*	0.3919	0.0029	*	3.501	0.014	*	0.00074	0.00022	*	0.0997	0.0047
P9908	4	1999	8	1999.7.30	14:15	1999.9.4	13:35	35.9722	2.0340	4.0680	0.11309	*	0.2910	0.0021	*	1.955	0.022	*	0.00084	0.00016	*	0.0588	0.0035
P9909	4	1999	9	1999.9.4	13:35	1999.10.2	9:40	27.8368	2.6971	5.3942	0.19378	*	0.2990	0.0029	*	2.954	0.027	*	0.00181	0.00024	*	0.0970	0.0050
P9910	4	1999	10	1999.10.2	9:40	1999.11.2	11:00	31.0556	1.5115	3.0230	0.09734	*	0.2710	0.0021	*	8.972	0.035	*	0.00079	0.00018	*	0.0517	0.0037
P9911	4	1999	11	1999.11.2	11:00	1999.12.1	10:10	28.9653	0.8009	1.6018	0.05530	*	0.1862	0.0019	*	4.229	0.022				*	0.0312	0.0035
P9912	4	1999	12	1999.12.1	10:10	1999.12.28	14:00	27.1597	1.0430	2.0860	0.07680	*	0.0580	0.0015	*	0.760	0.009				*	0.0595	0.0042
P0001	4	2000	1	1999.12.28	14:00	2000.2.2	14:30	36.0208	1.4113	2.8226	0.07836	*	0.1897	0.0018	*	2.827	0.012	*	0.00065	0.00015	*	0.0612	0.0034
P0002	*4*	*2000*	*2*	*2000.2.2*	*14:30*	*2000.2.29*	*13:35*	*26.9618*	*1.4659*	*2.9318*	*0.10874*	*	*0.2228*	*0.0023*	*	*2.010*	*0.010*				*	*0.0671*	*0.0044*
P0003	4	2000	3	2000.2.29	13:35	2000.3.31	9:15	30.8194	7.2896	14.5792	0.47305	*	0.5034	0.0062	*	5.690	0.026	*	0.00435	0.00056	*	0.1948	0.0112
P0004	4	2000	4	2000.3.31	9:15	2000.4.30	13:35	30.1806	6.5126	13.0252	0.43158	*	0.8290	0.0070	*	14.242	0.037	*	0.00627	0.00051	*	0.2252	0.0103
P0005	4	2000	5	2000.4.30	13:35	2000.6.1	13:50	32.0104	2.2482	4.4964	0.14047	*	0.5567	0.0045	*	11.146	0.027	*	0.00175	0.00029	*	0.0978	0.0060
P0006	4	2000	6	2000.6.1	13:50	2000.6.30	13:40	28.9931	1.0776	2.1552	0.07434	*	0.4831	0.0028	*	9.626	0.025	*	0.00060	0.00019	*	0.0573	0.0038
P0007	4	2000	7	2000.6.30	13:40	2000.8.2	14:10	33.0208	2.5289	5.0578	0.15317	*	0.4621	0.0032	*	4.893	0.017	*	0.00087	0.00019	*	0.0871	0.0044
P0008	4	2000	8	2000.8.2	14:10	2000.9.2	7:25	30.7188	1.4394	2.8788	0.09371	*	0.1446	0.0017	*	1.174	0.007	*	0.00059	0.00018	*	0.0594	0.0037
P0009	4	2000	9	2000.9.2	7:25	2000.9.30	8:20	28.0382	2.1073	4.2146	0.15032	*	0.5059	0.0034	*	7.367	0.027	*	0.00073	0.00022	*	0.1008	0.0045
P0010	4	2000	10	2000.9.30	8:20	2000.11.3	9:15	34.0382	0.9198	1.8396	0.05405	*	0.3856	0.0022	*	6.586	0.018				*	0.0418	0.0029
P0011	4	2000	11	2000.11.3	9:15	2000.12.1	11:05	28.0764	0.8327	1.6654	0.05932	*	0.2558	0.0021	*	3.504	0.013				*	0.0669	0.0037
P0012	4	2000	12	2000.12.1	11:05	2000.12.29	16:40	28.2326	1.1970	2.3940	0.08480	*	0.1050	0.0017	*	0.757	0.006				*	0.0837	0.0040
P0101	4	2001	1	2000.12.29	16:40	2001.2.1	13:20	33.8611	1.4071	2.8142	0.08311	*	0.2089	0.0020	*	2.971	0.010				*	0.0544	0.0036
P0102	4	2001	2	2001.2.1	13:20	2001.3.1	13:45	28.0174	1.5405	3.0810	0.10997	*	0.2538	0.0024	*	2.117	0.009	*	0.00075	0.00021	*	0.0665	0.0045
P0103	4	2001	3	2001.3.1	13:45	2001.3.30	10:05	28.8472	2.4834	4.9668	0.17218	*	0.5344	0.0035	*	6.007	0.016	*	0.00169	0.00022	*	0.0892	0.0049

*: detected

Table 4 Deposition of radionuclides at Tokai-mura (10m)

Sample	Hight	Year	Month	Sampling					Weight			Pb-210(46.50keV)			Be-7(477.59keV)			Cs-137(661.65keV)			K-40(1460.80keV)		
				Start Date	Start Time	End Date	End Time	Period					Radioactivity	Error		Radioactivity	Error		Radioactivity	Error		Radioactivity	Error
	(m)							(d)	(g dry)	(g dry m^{-2})	(g dry m^{-2} d^{-1})	Det.	(Bq m^{-2} d^{-1})	(Bq m^{-2} d^{-1})	Det.	(Bq m^{-2} d^{-1})	(Bq m^{-2} d^{-1})	Det.	(Bq m^{-2} d^{-1})	(Bq m^{-2} d^{-1})	Det.	(Bq m^{-2} d^{-1})	(Bq m^{-2} d^{-1})
R9309	10	1993	9	1993.9.2	11:05	1993.9.30	11:20	28.0104	1.1441	2.2882	0.08169	*	0.4804	0.0027	*	5.013	0.124	*	0.00064	0.00013	*	0.0372	0.0032
R9310	10	1993	10	1993.9.30	11:20	1993.11.1	11:50	32.0208	1.4543	2.9086	0.09083	*	0.3811	0.0025	*	5.246	0.095	*	0.00047	0.00012	*	0.0396	0.0029
R9311	10	1993	11	1993.11.1	11:50	1993.12.1	10:45	29.9549	1.9678	3.9356	0.13138	*	0.2621	0.0022	*	4.675	0.168	*	0.00052	0.00013	*	0.0601	0.0034
R9312	10	1993	12	1993.12.1	10:45	1994.1.5	11:10	35.0174	1.2536	2.5072	0.07160	*	0.2698	0.0020	*	3.224	0.109	*	0.00083	0.00012	*	0.0307	0.0027
R9401	10	1994	1	1994.1.5	11:10	1994.2.1	10:50	26.9861	1.6869	3.3738	0.12502	*	0.6710	0.0036	*	4.601	0.119	*	0.00189	0.00017	*	0.0814	0.0041
R9402	10	1994	2	1994.2.1	10:50	1994.2.28	11:00	27.0069	1.5961	3.1922	0.11820	*	0.4014	0.0028	*	3.382	0.095	*	0.00167	0.00016	*	0.0742	0.0040
R9403	10	1994	3	1994.2.28	11:00	1994.4.8	14:50	39.1597	12.8565	25.7130	0.65662	*	0.6599	0.0079	*	4.522	0.207	*	0.00792	0.00061	*	0.2679	0.0137
R9404	10	1994	4	1994.4.8	14:50	1994.4.29	9:13	20.7660	3.6029	7.2058	0.34700	*	0.2958	0.0047	*	2.749	0.110	*	0.00367	0.00037	*	0.1676	0.0088
R9405	10	1994	5	1994.4.29	9:13	1994.5.31	10:50	32.0674	3.6029	7.2058	0.22471	*	0.6047	0.0059	*	6.614	0.151	*	0.00139	0.00035	*	0.1383	0.0087
R9406	10	1994	6	1994.5.31	10:50	1994.7.1	10:40	30.9931	1.1213	2.2426	0.07236	*	0.3936	0.0025	*	4.225	0.011	*	0.00049	0.00015	*	0.0360	0.0033
R9407	10	1994	7	1994.7.1	10:40	1994.8.1	10:55	31.0104	1.2380	2.4760	0.07984	*	0.1810	0.0018	*	1.533	0.077	*	0.00077	0.00012	*	0.0430	0.0031
R9408	10	1994	8	1994.8.1	10:55	1994.8.31	10:40	29.9896	1.1984	2.3968	0.07992	*	0.1975	0.0019	*	4.252	0.174	*	0.00059	0.00012	*	0.0516	0.0033
R9409	10	1994	9	1994.8.31	10:40	1994.9.30	12:00	30.0556	1.7212	3.4424	0.11453	*	0.8402	0.0034	*	11.769	0.200				*	0.0754	0.0036
R9410	10	1994	10	1994.9.30	12:00	1994.10.31	10:50	30.9514	0.9967	1.9934	0.06440	*	0.3611	0.0022	*	4.030	0.116	*	0.00037	0.00011	*	0.0288	0.0027
R9411	10	1994	11	1994.10.31	10:50	1994.12.1	10:40	30.9931	0.9995	1.9990	0.06450	*	0.2743	0.0020	*	2.732	0.088	*	0.00073	0.00011	*	0.0293	0.0027
R9412	10	1994	12	1994.12.1	10:40	1995.1.5	11:25	35.0313	1.0836	2.1672	0.06186	*	0.3047	0.0019	*	2.953	0.065	*	0.00069	0.00011	*	0.0330	0.0025
R9501	10	1995	1	1995.1.5	11:25	1995.2.1	10:50	26.9757	1.2153	2.4306	0.09010	*	0.3101	0.0023	*	2.489	0.061	*	0.00104	0.00014	*	0.0595	0.0036
R9502	10	1995	2	1995.2.1	10:50	1995.2.28	11:10	27.0139	1.3316	2.6632	0.09859	*	0.3701	0.0023	*	3.725	0.111	*	0.00128	0.00019	*	0.0539	0.0035
R9503	10	1995	3	1995.2.28	11:10	1995.3.29	11:35	29.0174	2.9758	5.9516	0.20510	*	0.8655	0.0040	*	10.901	0.161	*	0.00257	0.00024	*	0.0996	0.0045
R9504	10	1995	4	1995.3.29	11:35	1995.5.1	11:10	32.9826	4.9228	9.8456	0.29851	*	0.6910	0.0049	*	10.853	0.179	*	0.00256	0.00040	*	0.1314	0.0073
R9505	10	1995	5	1995.5.1	11:10	1995.6.1	12:10	31.0417	2.5208	5.0416	0.16241	*	0.6810	0.0039	*	14.431	0.118	*	0.00134	0.00021	*	0.0882	0.0040
R9506	10	1995	6	1995.6.1	12:10	1995.6.30	16:15	29.1701	1.5887	3.1774	0.10893	*	0.6428	0.0032	*	13.867	0.089				*	0.0587	0.0033
R9507	10	1995	7	1995.6.30	16:15	1995.8.1	11:25	31.7986	1.1858	2.3716	0.07458	*	0.4560	0.0024	*	7.819	0.056				*	0.0383	0.0027
R9508	10	1995	8	1995.8.1	11:25	1995.9.1	12:00	31.0243	1.2748	2.5496	0.08218	*	0.3492	0.0021	*	4.171	0.045	*	0.00091	0.00016	*	0.0292	0.0028
R9509	10	1995	9	1995.9.1	12:00	1995.10.3	12:40	32.0278	1.4676	2.9352	0.09165	*	0.2763	0.0019	*	4.388	0.037	*	0.00074	0.00015	*	0.0443	0.0030
R9510	10	1995	10	1995.10.3	12:40	1995.11.1	10:20	28.9028	1.0020	2.0040	0.06934	*	0.2260	0.0031	*	2.803	0.025	*	0.00146	0.00018	*	0.0311	0.0029
R9511	10	1995	11	1995.11.1	10:20	1995.12.1	10:40	30.0139	0.9783	1.9566	0.06519	*	0.1634	0.0017	*	2.418	0.023	*	0.00085	0.00016	*	0.0336	0.0027
R9512	10	1995	12	1995.12.1	10:40	1996.1.5	10:20	34.9861	1.7667	3.5334	0.10099	*	0.0868	0.0012	*	0.413	0.009	*	0.00149	0.00016	*	0.0495	0.0030
R9601	10	1996	1	1996.1.5	10:20	1996.1.31	13:30	26.1319	2.2213	4.4426	0.17001	*	0.3161	0.0028	*	2.639	0.018	*	0.00242	0.00024	*	0.0826	0.0041
R9602	10	1996	2	1996.1.31	13:30	1996.3.1	15:15	30.0729	7.9112	15.8224	0.52613	*	0.3248	0.0044	*	3.622	0.040	*	0.00838	0.00061	*	0.2115	0.0101
R9603	10	1996	3	1996.3.1	15:15	1996.4.1	14:45	30.9792	2.3283	4.6566	0.15031	*	0.4527	0.0051	*	7.639	0.027	*	0.00233	0.00021	*	0.0814	0.0036
R9604	10	1996	4	1996.4.1	14:45	1996.4.30	10:35	28.8264	2.5677	5.1354	0.17815	*	0.5308	0.0034	*	6.928	0.025	*	0.00264	0.00025	*	0.0708	0.0042
R9605	10	1996	5	1996.4.30	10:35	1996.5.31	11:00	31.0174	2.5540	5.1080	0.16468	*	0.7579	0.0044	*	13.972	0.028	*	0.00256	0.00024	*	0.0883	0.0041
R9606	10	1996	6	1996.5.31	11:00	1996.7.1	10:40	30.9861	1.7766	3.5532	0.11467	*	0.4906	0.0029	*	5.554	0.077	*	0.00157	0.00020	*	0.0858	0.0036
R9607	10	1996	7	1996.7.1	10:40	1996.8.1	13:05	31.1007	1.1981	2.3962	0.07705	*	0.3124	0.0020	*	5.206	0.061	*	0.00069	0.00016	*	0.0237	0.0027
R9608	10	1996	8	1996.8.1	13:05	1996.9.3	17:35	33.1875	1.4934	2.9868	0.09000	*	0.1919	0.0018	*	1.968	0.032	*	0.00096	0.00017	*	0.0757	0.0033
R9609	10	1996	9	1996.9.3	17:35	1996.10.2	11:10	28.7326	3.1649	6.3298	0.22030	*	0.4299	0.0027	*	9.050	0.058	*	0.00139	0.00020	*	0.1041	0.0045
R9610	10	1996	10	1996.10.2	11:10	1996.11.3	10:40	31.9792	1.4180	2.8360	0.08868	*	0.4362	0.0025	*	6.939	0.037	*	0.00067	0.00017	*	0.0786	0.0033
R9611	10	1996	11	1996.11.3	10:40	1996.12.2	13:40	29.1250	1.2645	2.5290	0.08683	*	0.3710	0.0023	*	8.845	0.037	*	0.00073	0.00017	*	0.0401	0.0032
R9612	10	1996	12	1996.12.2	13:40	1997.1.6	11:30	34.9097	1.6901	3.3802	0.09683	*	0.2700	0.0021	*	5.068	0.021	*	0.00052	0.00016	*	0.0868	0.0032
R9701	10	1997	1	1997.1.6	11:30	1997.1.31	14:45	25.1354	1.4724	2.9448	0.11716	*	0.1228	0.0017	*	0.602	0.008	*	0.00198	0.00021	*	0.0591	0.0039
R9702	10	1997	2	1997.1.31	14:20	1997.3.2	9:55	29.8160	6.5898	13.1796	0.44203	*	0.4392	0.0056	*	3.363	0.021	*	0.00669	0.00053	*	0.2622	0.0095
R9703	10	1997	3	1997.3.2	10:30	1997.3.29	10:30	27.0000	4.4855	8.9710	0.33226	*	0.4637	0.0046	*	6.624	0.026	*	0.00459	0.00038	*	0.2147	0.0071
R9704	10	1997	4	1997.3.29	10:30	1997.5.1	11:00	33.0208	2.9489	5.8978	0.17861	*	0.6496	0.0039	*	9.492	0.022	*	0.00125	0.00022	*	0.1280	0.0044
R9705	10	1997	5	1997.5.1	11:00	1997.6.2	11:30	32.0208	5.8933	11.7866	0.36809	*	0.7167	0.0063	*	13.876	0.099	*	0.00368	0.00049	*	0.1554	0.0098
R9706	10	1997	6	1997.6.2	11:30	1997.7.1	11:30	29.0000	1.6558	3.3116	0.11419	*	0.4651	0.0029	*	8.347	0.043				*	0.0613	0.0043
R9707	10	1997	7	1997.7.1	11:30	1997.7.31	11:00	29.9792	1.0941	2.1882	0.07299	*	0.2044	0.0018	*	4.052	0.025	*	0.00059	0.00017	*	0.0355	0.0029
R9708	10	1997	8	1997.7.31	11:00	1997.8.28	11:00	28.0000	1.2921	2.5842	0.09229	*	0.2866	0.0024	*	4.454	0.023				*	0.0499	0.0041
R9709	10	1997	9	1997.8.28	11:00	1997.10.1	11:15	34.0104	2.0432	4.0864	0.12015	*	0.3363	0.0025	*	7.913	0.023	*	0.00050	0.00016	*	0.0574	0.0038
R9710	10	1997	10	1997.10.1	11:15	1997.10.31	10:35	29.9722	0.9731	1.9462	0.06493	*	0.1630	0.0019	*	2.527	0.014	*	0.00176	0.00019	*	0.0282	0.0036
R9711	10	1997	11	1997.10.31	10:35	1997.12.1	14:35	31.1667	1.0097	2.0194	0.06479	*	0.3476	0.0022	*	8.476	0.021				*	0.0322	0.0027

R9712	10	1997	12	1997.12.1	14:35	1998.1.5	11:10	34.8576	1.0243	2.0486	0.05877	*	0.2630	0.0020	*	2.945	0.012				*	0.0413	0.0033
R9801	10	1998	1	1998.1.5	11:10	1998.1.31	14:35	26.1424	1.8605	3.7210	0.14234	*	0.4203	0.0027	*	5.480	0.017				*	0.0758	0.0046
R9802	10	1998	2	1998.1.31	14:35	1998.2.27	16:15	27.0694	1.4658	2.9316	0.10830	*	0.4412	0.0028	*	4.268	0.018	*	0.00109	0.00020	*	0.0750	0.0045
R9803	10	1998	3	1998.2.27	16:15	1998.3.27	15:05	27.9514	2.7099	5.4198	0.19390	*	0.5414	0.0037	*	5.691	0.020	*	0.00219	0.00025	*	0.1054	0.0053
R9804	10	1998	4	1998.3.27	15:05	1998.4.30	11:35	33.8542	2.2329	4.4658	0.13191	*	0.5836	0.0036	*	9.956	0.028	*	0.00110	0.00020	*	0.0759	0.0044
R9805	10	1998	5	1998.4.30	11:35	1998.6.1	11:25	31.9931	2.1258	4.2516	0.13289	*	0.5117	0.0036	*	11.226	0.025	*	0.00113	0.00021	*	0.0788	0.0047
R9806	10	1998	6	1998.6.1	11:25	1998.6.30	11:10	28.9896	1.2501	2.5002	0.08624	*	0.3980	0.0027	*	9.400	0.024				*	0.0410	0.0040
R9807	10	1998	7	1998.6.30	11:10	1998.8.1	10:55	31.9896	1.3287	2.6574	0.08307	*	0.4006	0.0026	*	8.565	0.022				*	0.0543	0.0037
R9808	10	1998	8	1998.8.1	10:55	1998.8.31	12:25	30.0625	0.9534	1.9068	0.06343	*	0.5012	0.0026	*	6.735	0.021				*	0.0364	0.0034
R9809	10	1998	9	1998.8.31	12:25	1998.10.1	16:20	31.1632	2.4614	4.9228	0.15797	*	0.3465	0.0027	*	9.369	0.026	*	0.00068	0.00018	*	0.0717	0.0041
R9810	10	1998	10	1998.10.1	16:20	1998.10.31	11:20	29.7917	1.2162	2.4324	0.08165	*	0.3499	0.0026	*	8.778	0.021				*	0.0407	0.0036
R9811	10	1998	11	1998.10.31	11:20	1998.11.29	10:40	28.9722	1.0232	2.0464	0.07063	*	0.0852	0.0016	*	0.641	0.005				*	0.0346	0.0036
R9812	10	1998	12	1998.11.29	10:40	1998.12.28	15:25	29.1979	1.2049	2.4098	0.08253	*	0.2138	0.0020	*	2.275	0.010	*	0.00074	0.00019	*	0.0499	0.0039
R9901	10	1999	1	1998.12.28	15:25	1999.1.31	13:55	33.9375	1.3124	2.6248	0.07734	*	0.0914	0.0014	*	0.677	0.006	*	0.00078	0.00016	*	0.0424	0.0033
R9902	10	1999	2	1999.1.31	13:55	1999.2.27	12:40	26.9479	1.5487	3.0974	0.11494	*	0.4145	0.0029	*	5.085	0.021	*	0.00139	0.00021	*	0.0629	0.0044
R9903	10	1999	3	1999.2.27	12:40	1999.4.1	15:00	33.0972	2.9916	5.9832	0.18078	*	0.6166	0.0038	*	8.857	0.025	*	0.00235	0.00023	*	0.0973	0.0046
R9904	10	1999	4	1999.4.1	15:00	1999.5.1	10:45	29.8229	3.6730	7.3460	0.24632	*	0.6641	0.0046	*	17.242	0.036	*	0.00134	0.00025	*	0.1174	0.0057
R9905	10	1999	5	1999.5.1	10:45	1999.6.2	10:40	31.9965	2.3585	4.7170	0.14742	*	0.5042	0.0036	*	8.876	0.025	*	0.00118	0.00023	*	0.0740	0.0048
R9906	10	1999	6	1999.6.2	10:40	1999.7.1	12:05	29.0590	1.3489	2.6978	0.09284	*	0.5141	0.0030	*	12.984	0.031	*	0.00084	0.00019	*	0.0490	0.0038
R9907	10	1999	7	1999.7.1	12:05	1999.7.30	15:45	29.1528	1.1857	2.3714	0.08134	*	0.3194	0.0024	*	5.369	0.018				*	0.0485	0.0038
R9908	10	1999	8	1999.7.30	15:45	1999.9.4	14:55	35.9653	1.3829	2.7658	0.07690	*	0.1481	0.0015	*	1.557	0.020	*	0.00046	0.00015	*	0.0395	0.0031
R9909	10	1999	9	1999.9.4	14:55	1999.10.2	11:05	27.8403	1.7178	3.4356	0.12340	*	0.2565	0.0024	*	3.146	0.027	*	0.00115	0.00021	*	0.0717	0.0044
R9910	10	1999	10	1999.10.2	11:05	1999.11.2	12:20	31.0521	1.6908	3.3816	0.10890	*	0.4235	0.0026	*	10.952	0.040				*	0.0434	0.0036
R9911	10	1999	11	1999.11.2	12:20	1999.12.1	11:25	28.9618	2.8000	5.6000	0.19336	*	0.1625	0.0023	*	2.748	0.020				*	0.1488	0.0054
R9912	10	1999	12	1999.12.1	11:25	1999.12.28	14:45	27.1389	3.3745	6.7490	0.24868	*	0.0714	0.0021	*	1.120	0.012	*	0.00082	0.00024	*	0.1373	0.0056
R0001	10	2000	1	1999.12.28	14:45	2000.2.2	15:35	36.0347	1.9184	3.8368	0.10648	*	0.2731	0.0021	*	3.287	0.014	*	0.00051	0.00017	*	0.0555	0.0035
R0002	10	2000	2	2000.2.2	15:35	2000.2.29	14:55	26.9722	1.8226	3.6452	0.13515	*	0.2627	0.0025	*	2.150	0.012	*	0.00116	0.00022	*	0.0712	0.0046
R0003	10	2000	3	2000.2.29	14:55	2000.3.31	10:15	30.8056	10.7216	21.4432	0.69608	*	0.5114	0.0078	*	5.742	0.032	*	0.00731	0.00078	*	0.2948	0.0157
R0004	10	2000	4	2000.3.31	10:15	2000.4.30	15:05	30.2014	9.4115	18.8230	0.62325	*	0.9606	0.0087	*	15.164	0.047	*	0.00887	0.00069	*	0.3153	0.0141
R0005	10	2000	5	2000.4.30	15:05	2000.6.1	15:20	32.0104	2.3286	4.6572	0.14549	*	0.6555	0.0043	*	11.388	0.026	*	0.00155	0.00025	*	0.0887	0.0052
R0006	10	2000	6	2000.6.1	15:20	2000.6.30	15:20	29.0000	0.8774	1.7548	0.06051	*	0.4807	0.0026	*	7.752	0.023	*	0.00073	0.00018	*	0.0429	0.0035
R0007	10	2000	7	2000.6.30	15:20	2000.8.2	15:45	33.0174	2.3540	4.7080	0.14259	*	0.4518	0.0030	*	5.327	0.017	*	0.00098	0.00019	*	0.0628	0.0039
R0008	10	2000	8	2000.8.2	15:45	2000.9.2	8:30	30.6979	1.0095	2.0190	0.06577	*	0.1141	0.0015	*	1.228	0.007				*	0.0373	0.0033
R0009	10	2000	9	2000.9.2	8:30	2000.9.30	10:20	28.0764	1.7296	3.4592	0.12321	*	0.4853	0.0030	*	7.844	0.027	*	0.00068	0.00020	*	0.0768	0.0040
R0010	10	2000	10	2000.9.30	10:20	2000.11.3	11:10	34.0347	1.0856	2.1712	0.06379	*	0.4864	0.0025	*	7.111	0.020				*	0.0450	0.0030
R0011	10	2000	11	2000.11.3	11:10	2000.12.1	12:20	28.0486	1.0536	2.1072	0.07513	*	0.2694	0.0022	*	3.529	0.013				*	0.0607	0.0038
R0012	10	2000	12	2000.12.1	12:20	2000.12.29	17:15	28.2049	1.2966	2.5932	0.09194	*	0.1055	0.0017	*	0.850	0.006	*	0.00094	0.00020	*	0.0828	0.0040
R0101	10	2001	1	2000.12.29	17:15	2001.2.1	14:45	33.8958	2.1884	4.3768	0.12913	*	0.2983	0.0024	*	4.250	0.013	*	0.00114	0.00018	*	0.0727	0.0040
R0102	10	2001	2	2001.2.1	14:45	2001.3.1	12:30	27.9063	1.9793	3.9586	0.14185	*	0.3061	0.0026	*	2.188	0.010	*	0.00169	0.00022	*	0.0755	0.0048
R0103	10	2001	3	2001.3.1	12:30	2001.3.30	11:40	28.9653	2.5365	5.0730	0.17514	*	0.5622	0.0036	*	6.234	0.017	*	0.00184	0.00023	*	0.0906	0.0049

*: detected

Table 5 Concentration of radionuclides in deposition samples at Tokai-mura (1.5m)

Sample	Hight	Year	Month	Sampling					Weight			Pb-210(46.50keV)			Be-7(477.59keV)			Cs-137(661.65keV)			K-40(1460.80keV)		
				Start Date	Start Time	End Date	End Time	Period					Radioactivity	Error		Radioactivity	Error		Radioactivity	Error		Radioactivity	Error
	(m)							(d)	(g dry)	(g dry m^{-2})	(g dry m^{-2} d^{-1})	Det.	(Bq g^{-1} dry)	(Bq g^{-1} dry)	Det.	(Bq g^{-1} dry)	(Bq g^{-1} dry)	Det.	(Bq g^{-1} dry)	(Bq g^{-1} dry)	Det.	(Bq g^{-1} dry)	(Bq g^{-1} dry)
Q9309	1.5	1993	9	1993.9.2	11:10	1993.9.30	10:35	27.9757	1.1212	2.2424	0.08016	*	4.384	0.031	*	58.88	1.46				*	0.469	0.040
Q9310	1.5	1993	10	1993.9.30	10:35	1993.11.1	11:10	32.0243	1.4097	2.8194	0.08804	*	4.262	0.027	*	60.14	1.05	*	0.0049	0.0013	*	0.435	0.033
Q9311	1.5	1993	11	1993.11.1	11:10	1993.12.1	10:10	29.9583	1.8242	3.6484	0.12178	*	2.326	0.019	*	37.58	1.37	*	0.0061	0.0011	*	0.514	0.029
Q9312	1.5	1993	12	1993.12.1	10:10	1994.1.5	11:35	35.0590	0.9263	1.8526	0.05284	*	4.604	0.035	*	62.54	1.91	*	0.0080	0.0019	*	0.502	0.047
Q9401	1.5	1994	1	1994.1.5	11:35	1994.2.1	13:35	27.0833	1.3710	2.7420	0.10124	*	5.541	0.031	*	46.95	1.10	*	0.0118	0.0015	*	0.590	0.036
Q9402	1.5	1994	2	1994.2.1	13:35	1994.2.28	11:25	26.9097	1.2500	2.5000	0.09290	*	3.688	0.027	*	36.61	0.90	*	0.0112	0.0015	*	0.573	0.038
Q9403	1.5	1994	3	1994.2.28	11:25	1994.4.8	14:10	39.1146	9.0574	18.1148	0.46312	*	1.392	0.014	*	9.77	0.35	*	0.0109	0.0009	*	0.463	0.022
Q9404	1.5	1994	4	1994.4.8	14:10	1994.4.29	8:47	20.7757	2.8016	5.6032	0.26970	*	1.123	0.015	*	11.41	0.34	*	0.0106	0.0012	*	0.448	0.026
Q9405	1.5	1994	5	1994.4.29	8:47	1994.5.31	10:15	32.0611	3.9833	7.9666	0.24848	*	2.535	0.029	*	29.38	0.76	*	0.0070	0.0019	*	0.570	0.044
Q9406	1.5	1994	6	1994.5.31	10:15	1994.7.1	10:05	30.9931	1.3714	2.7428	0.08850	*	4.624	0.031	*	49.94	0.13				*	0.431	0.040
Q9407	1.5	1994	7	1994.7.1	10:05	1994.8.1	10:30	31.0174	1.0291	2.0582	0.06636	*	2.862	0.027	*	23.55	0.41				*	0.430	0.042
Q9408	1.5	1994	8	1994.8.1	10:30	1994.8.31	9:55	29.9757	1.0659	2.1318	0.07112	*	2.700	0.027	*	69.64	2.46	*	0.0051	0.0016	*	0.538	0.043
Q9409	1.5	1994	9	1994.8.31	9:55	1994.9.30	11:10	30.0521	1.6276	3.2552	0.10832	*	7.108	0.030	*	107.77	1.88	*	0.0037	0.0012	*	0.612	0.032
Q9410	1.5	1994	10	1994.9.30	11:10	1994.10.31	10:25	30.9688	0.9808	1.9616	0.06334	*	5.302	0.034	*	61.82	1.74				*	0.526	0.044
Q9411	1.5	1994	11	1994.10.31	10:25	1994.12.1	10:20	30.9965	0.6663	1.3326	0.04299	*	4.743	0.041	*	52.62	1.90				*	0.494	0.059
Q9412	1.5	1994	12	1994.12.1	10:20	1995.1.5	10:10	34.9931	0.8101	1.6202	0.04630	*	5.777	0.040	*	61.41	1.37				*	0.507	0.053
Q9501	1.5	1995	1	1995.1.5	10:10	1995.2.1	11:35	27.0590	0.8836	1.7672	0.06531	*	4.024	0.032	*	35.56	0.89	*	0.0086	0.0019	*	0.628	0.049
Q9502	1.5	1995	2	1995.2.1	11:35	1995.2.28	10:50	26.9688	0.9169	1.8338	0.06800	*	5.060	0.035	*	37.01	1.04	*	0.0084	0.0017	*	0.636	0.050
Q9503	1.5	1995	3	1995.2.28	10:50	1995.3.29	10:55	29.0035	2.7291	5.4582	0.18819	*	4.250	0.019	*	57.17	0.75	*	0.0176	0.0013	*	0.498	0.023
Q9504	1.5	1995	4	1995.3.29	10:55	1995.5.1	10:30	32.9826	3.4674	6.9348	0.21026	*	3.674	0.021	*	53.88	0.63	*	0.0116	0.0012	*	0.496	0.023
Q9505	1.5	1995	5	1995.5.1	10:30	1995.6.1	11:10	31.0278	2.6942	5.3884	0.17366	*	3.850	0.020	*	88.11	0.69	*	0.0072	0.0013	*	0.531	0.025
Q9506	1.5	1995	6	1995.6.1	11:10	1995.6.30	15:15	29.1701	1.8673	3.7346	0.12803	*	5.108	0.025	*	113.75	0.70	*	0.0070	0.0014	*	0.583	0.028
Q9507	1.5	1995	7	1995.6.30	15:15	1995.8.1	10:50	31.8160	0.9971	1.9942	0.06268	*	7.292	0.041	*	119.00	0.84				*	0.409	0.041
Q9508	1.5	1995	8	1995.8.1	10:50	1995.9.1	10:20	30.9792	1.0240	2.0480	0.06611	*	5.281	0.034	*	68.63	0.56	*	0.0084	0.0024	*	0.609	0.042
Q9509	1.5	1995	9	1995.9.1	10:20	1995.10.3	11:35	32.0521	1.2120	2.4240	0.07563	*	5.021	0.030	*	87.03	0.56	*	0.0069	0.0020	*	0.534	0.036
Q9510	1.5	1995	10	1995.10.3	11:35	1995.11.1	9:55	28.9306	0.8644	1.7288	0.05976	*	3.859	0.030	*	55.93	0.46	*	0.0134	0.0031	*	0.421	0.048
Q9511	1.5	1995	11	1995.11.1	9:55	1995.12.1	10:10	30.0104	0.7878	1.5756	0.05250	*	3.242	0.030	*	56.01	0.47	*	0.0096	0.0028	*	0.597	0.053
Q9512	1.5	1995	12	1995.12.1	10:10	1996.1.5	11:15	35.0451	1.3738	2.7476	0.07840	*	0.839	0.017	*	6.47	0.11	*	0.0090	0.0019	*	0.569	0.035
Q9601	1.5	1996	1	1996.1.5	11:15	1996.1.31	15:35	26.1806	1.5455	3.0910	0.11806	*	2.013	0.018	*	20.32	0.15	*	0.0136	0.0018	*	0.566	0.033
Q9602	1.5	1996	2	1996.1.31	15:35	1996.3.1	14:45	29.9653	4.4544	8.9088	0.29730	*	0.969	0.012	*	13.27	0.10	*	0.0203	0.0012	*	0.502	0.020
Q9603	1.5	1996	3	1996.3.1	14:45	1996.4.1	15:50	31.0451	2.0869	4.1738	0.13444	*	4.198	0.021	*	66.87	0.22	*	0.0162	0.0015	*	0.543	0.027
Q9604	1.5	1996	4	1996.4.1	15:50	1996.4.30	10:00	28.7569	2.2648	4.5296	0.15751	*	3.932	0.021	*	57.71	0.16	*	0.0177	0.0014	*	0.614	0.025
Q9605	1.5	1996	5	1996.4.30	10:00	1996.5.31	10:15	31.0104	2.3557	4.7114	0.15193	*	4.364	0.023	*	92.80	0.19	*	0.0100	0.0016	*	0.493	0.027
Q9606	1.5	1996	6	1996.5.31	10:15	1996.7.1	10:10	30.9965	1.4428	2.8856	0.09309	*	4.946	0.026	*	60.22	0.84	*	0.0064	0.0018	*	0.457	0.034
Q9607	1.5	1996	7	1996.7.1	10:10	1996.8.1	12:05	31.0799	1.1413	2.2826	0.07344	*	4.340	0.030	*	81.02	0.84	*	0.0086	0.0023	*	0.941	0.044
Q9608	1.5	1996	8	1996.8.1	12:05	1996.9.3	17:15	33.2153	1.2953	2.5906	0.07799	*	1.818	0.018	*	24.40	0.39	*	0.0101	0.0020	*	0.578	0.037
Q9609	1.5	1996	9	1996.9.3	17:05	1996.10.2	10:30	28.7188	3.7739	7.5478	0.26282	*	1.825	0.014	*	34.47	0.23	*	0.0045	0.0010	*	0.678	0.021
Q9610	1.5	1996	10	1996.10.2	10:30	1996.11.3	10:05	31.9826	1.3323	2.6646	0.08331	*	4.660	0.026	*	80.22	0.44				*	0.483	0.035
Q9611	1.5	1996	11	1996.11.3	10:05	1996.12.2	11:25	29.0556	0.8874	1.7748	0.06108	*	6.135	0.040	*	153.72	0.59	*	0.0096	0.0029	*	1.284	0.055
Q9612	1.5	1996	12	1996.12.2	11:25	1997.1.6	10:50	34.9757	1.0916	2.1832	0.06242	*	3.854	0.027	*	76.14	0.33	*	0.0070	0.0021	*	0.618	0.042
Q9701	1.5	1997	1	1997.1.6	10:50	1997.1.31	14:20	25.1458	0.8592	1.7184	0.06834	*	1.544	0.026	*	8.95	0.11	*	0.0106	0.0030	*	1.239	0.056
Q9702	1.5	1997	2	1997.1.31	14:20	1997.3.2	9:55	29.8160	4.3427	8.6854	0.29130	*	1.108	0.011	*	11.87	0.06	*	0.0167	0.0011	*	0.386	0.020
Q9703	1.5	1997	3	1997.3.2	9:55	1997.3.29	10:00	27.0035	3.2620	6.5240	0.24160	*	1.924	0.016	*	26.77	0.09	*	0.0167	0.0013	*	0.708	0.023
Q9704	1.5	1997	4	1997.3.29	10:00	1997.5.1	10:25	33.0174	2.5808	5.1616	0.15633	*	4.216	0.026	*	64.41	0.14	*	0.0087	0.0014	*	0.749	0.028
Q9705	1.5	1997	5	1997.5.1	10:25	1997.6.2	10:30	32.0035	4.5107	9.0214	0.28189	*	2.757	0.020	*	51.35	0.31	*	0.0116	0.0013	*	0.466	0.028
Q9706	1.5	1997	6	1997.6.2	10:30	1997.7.1	10:50	29.0139	1.0188	2.0376	0.07023	*	3.447	0.030	*	49.05	0.39				*	0.512	0.055
Q9707	1.5	1997	7	1997.7.1	10:50	1997.7.31	10:00	29.9653	1.1741	2.3482	0.07836	*	2.826	0.026	*	55.36	0.32	*	0.0070	0.0023	*	0.535	0.049
Q9708	1.5	1997	8	1997.7.31	10:00	1997.8.28	10:30	28.0208	1.1321	2.2642	0.08080	*	3.592	0.026	*	59.56	0.30	*	0.0071	0.0022	*	0.508	0.041
Q9709	1.5	1997	9	1997.8.28	10:30	1997.10.1	10:40	34.0069	2.1584	4.3168	0.12694	*	2.553	0.019	*	66.97	0.19				*	0.751	0.028
Q9710	1.5	1997	10	1997.10.1	10:40	1997.10.31	9:55	29.9688	1.0373	2.0746	0.06923	*	2.814	0.025	*	46.85	0.23				*	0.467	0.042
Q9711	1.5	1997	11	1997.10.31	9:55	1997.12.1	13:50	31.1632	1.3757	2.7514	0.08829	*	5.154	0.032	*	123.47	0.26				*	0.545	0.043

Q9712	1.5	1997	12	1997.12.1	13:50	1998.1.5	10:35	34.8646	0.7067	1.4134	0.04054	*	5.774	0.045	*	73.56	0.29				*	0.642	0.075
Q9801	1.5	1998	1	1998.1.5	10:35	1998.1.31	15:10	26.1910	1.7570	3.5140	0.13417	*	2.974	0.021	*	41.79	0.13				*	0.530	0.034
Q9802	1.5	1998	2	1998.1.31	15:10	1998.2.27	15:35	27.0174	1.3951	2.7902	0.10327	*	4.217	0.027	*	42.21	0.17	*	0.0074	0.0019	*	0.641	0.043
Q9803	1.5	1998	3	1998.2.27	15:35	1998.3.27	14:30	27.9549	2.1943	4.3886	0.15699	*	3.351	0.021	*	42.41	0.13	*	0.0086	0.0014	*	0.583	0.032
Q9804	1.5	1998	4	1998.3.27	14:30	1998.4.30	10:40	33.8403	2.3619	4.7238	0.13959	*	4.857	0.027	*	74.25	0.19	*	0.0097	0.0014	*	0.562	0.031
Q9805	1.5	1998	5	1998.4.30	10:40	1998.6.1	10:45	32.0035	2.8529	5.7058	0.17829	*	2.876	0.026	*	59.25	0.17	*	0.0056	0.0017	*	0.526	0.037
Q9806	1.5	1998	6	1998.6.1	10:45	1998.6.30	10:25	28.9861	1.3396	2.6792	0.09243	*	4.708	0.031	*	104.18	0.26				*	0.519	0.045
Q9807	1.5	1998	7	1998.6.30	10:25	1998.8.1	10:05	31.9861	1.6398	3.2796	0.10253	*	4.132	0.027	*	83.12	0.21	*	0.0062	0.0017	*	0.543	0.037
Q9808	1.5	1998	8	1998.8.1	10:05	1998.8.31	11:10	30.0451	1.1567	2.3134	0.07700	*	4.994	0.031	*	81.26	0.26				*	0.630	0.046
Q9809	1.5	1998	9	1998.8.31	11:10	1998.10.1	17:15	31.2535	2.2217	4.4434	0.14217	*	2.339	0.018	*	66.83	0.18	*	0.0046	0.0013	*	0.462	0.028
Q9810	1.5	1998	10	1998.10.1	17:15	1998.10.31	10:35	29.7222	1.9217	3.8434	0.12931	*	3.456	0.026	*	63.67	0.17				*	0.440	0.033
Q9811	1.5	1998	11	1998.10.31	10:35	1998.11.29	9:55	28.9722	0.8164	1.6328	0.05636	*	1.754	0.027	*	11.12	0.09				*	0.374	0.061
Q9812	1.5	1998	12	1998.11.29	9:55	1998.12.28	15:05	29.2153	0.8882	1.7764	0.06080	*	2.946	0.030	*	40.38	0.17	*	0.0169	0.0029	*	0.767	0.061
Q9901	1.5	1999	1	1998.12.28	15:05	1999.1.31	14:35	33.9792	0.8940	1.7880	0.05262	*	1.771	0.026	*	11.48	0.10	*	0.0091	0.0029	*	0.525	0.058
Q9902	1.5	1999	2	1999.1.31	14:35	1999.2.27	13:20	26.9479	1.2839	2.5678	0.09529	*	4.421	0.030	*	59.99	0.23	*	0.0118	0.0022	*	0.654	0.045
Q9903	1.5	1999	3	1999.2.27	13:20	1999.4.1	15:30	33.0903	2.7588	5.5176	0.16674	*	3.440	0.020	*	52.20	0.14	*	0.0150	0.0012	*	0.531	0.026
Q9904	1.5	1999	4	1999.4.1	15:30	1999.5.1	11:45	29.8438	3.6409	7.2818	0.24400	*	2.979	0.019	*	74.51	0.14	*	0.0077	0.0010	*	0.582	0.023
Q9905	1.5	1999	5	1999.5.1	11:45	1999.6.2	10:15	31.9375	2.2186	4.4372	0.13893	*	3.581	0.025	*	62.26	0.17	*	0.0073	0.0015	*	0.481	0.033
Q9906	1.5	1999	6	1999.6.2	10:15	1999.7.1	10:55	29.0278	1.4602	2.9204	0.10061	*	5.487	0.031	*	134.99	0.31	*	0.0059	0.0019	*	0.537	0.040
Q9907	1.5	1999	7	1999.7.1	10:55	1999.7.30	15:00	29.1701	1.3260	2.6520	0.09091	*	4.098	0.028	*	56.73	0.18				*	0.435	0.041
Q9908	1.5	1999	8	1999.7.30	15:00	1999.9.4	14:25	35.9757	1.9467	3.8934	0.10822	*	2.882	0.020	*	15.74	0.20	*	0.0050	0.0015	*	0.439	0.031
Q9909	1.5	1999	9	1999.9.4	14:25	1999.10.2	10:25	27.8333	1.8104	3.6208	0.13009	*	2.091	0.018	*	25.04	0.21	*	0.0055	0.0016	*	0.545	0.034
Q9910	1.5	1999	10	1999.10.2	10:25	1999.11.2	14:00	31.1493	1.6391	3.2782	0.10524	*	3.010	0.022	*	94.58	0.36				*	0.481	0.035
Q9911	1.5	1999	11	1999.11.2	14:00	1999.12.1	10:55	28.8715	0.7845	1.5690	0.05434	*	4.564	0.037	*	85.74	0.42				*	0.565	0.064
Q9912	1.5	1999	12	1999.12.1	10:55	1999.12.28	14:30	27.1493	1.0641	2.1282	0.07839	*	0.707	0.019	*	10.85	0.12				*	0.480	0.049
Q0001	1.5	2000	1	1999.12.28	14:30	2000.2.2	16:00	36.0625	1.3304	2.6608	0.07378	*	3.789	0.027	*	50.27	0.19				*	0.469	0.041
Q0002	1.5	2000	2	2000.2.2	16:00	2000.2.29	14:35	26.9410	1.2873	2.5746	0.09556	*	2.714	0.024	*	21.43	0.11	*	0.0081	0.0021	*	0.561	0.044
Q0003	1.5	2000	3	2000.2.29	14:35	2000.3.31	9:50	30.8021	6.9088	13.8176	0.44859	*	1.090	0.013	*	12.48	0.06	*	0.0099	0.0012	*	0.398	0.023
Q0004	1.5	2000	4	2000.3.31	9:50	2000.4.30	14:30	30.1944	6.5006	13.0012	0.43058	*	2.205	0.018	*	35.79	0.09	*	0.0160	0.0012	*	0.486	0.024
Q0005	1.5	2000	5	2000.4.30	14:30	2000.6.1	14:35	32.0035	2.5820	5.1640	0.16136	*	3.818	0.031	*	71.11	0.18	*	0.0084	0.0020	*	0.667	0.041
Q0006	*1.5*	*2000*	*6*	*2000.6.1*	*14:35*	*2000.6.30*	*14:40*	*29.0035*	*1.2599*	*2.5198*	*0.08688*	*	*6.987*	*0.035*	*	*115.50*	*0.30*	*	*0.0067*	*0.0022*	*	*0.560*	*0.042*
Q0007	1.5	2000	7	2000.6.30	14:40	2000.8.2	15:00	33.0139	2.2886	4.5772	0.13864	*	3.428	0.022	*	39.10	0.12				*	0.471	0.028
Q0008	1.5	2000	8	2000.8.2	15:00	2000.9.2	8:05	30.7118	1.0123	2.0246	0.06592	*	1.943	0.023	*	18.92	0.10				*	0.485	0.049
Q0009	1.5	2000	9	2000.9.2	8:05	2000.9.30	9:25	28.0556	1.7775	3.5550	0.12671	*	3.979	0.023	*	61.80	0.21				*	0.631	0.032
Q0010	1.5	2000	10	2000.9.30	9:25	2000.11.3	10:25	34.0417	1.2547	2.5094	0.07372	*	6.650	0.035	*	97.64	0.27	*	0.0931	0.0031	*	0.698	0.041
Q0011	1.5	2000	11	2000.11.3	10:25	2000.12.1	11:40	28.0521	0.9183	1.8366	0.06547	*	3.902	0.033	*	52.50	0.20				*	0.759	0.054
Q0012	1.5	2000	12	2000.12.1	11:40	2000.12.29	17:40	28.2500	0.9826	1.9652	0.06956	*	1.428	0.023	*	11.73	0.09	*	0.0104	0.0027	*	0.967	0.055
Q0101	1.5	2001	1	2000.12.29	17:40	2001.2.1	13:55	33.8438	1.6680	3.3360	0.09857	*	2.765	0.022	*	42.26	0.13	*	0.0084	0.0017	*	0.564	0.039
Q0102	1.5	2001	2	2001.2.1	13:55	2001.3.1	13:20	27.9757	1.5536	3.1072	0.11107	*	2.407	0.021	*	19.49	0.09	*	0.0140	0.0019	*	0.557	0.040
Q0103	1.5	2001	3	2001.3.1	13:20	2001.3.30	11:05	28.9063	2.2546	4.5092	0.15599	*	3.427	0.022	*	40.60	0.11	*	0.0092	0.0014	*	0.550	0.031

*: detected

Table 6 Concentration of radionuclides in deposition samples at Tokai-mura (4m)

Sample	Hight	Year	Month	Sampling					Weight			Pb-210(46.50keV)			Be-7(477.59keV)			Cs-137(661.65keV)			K-40(1460.80keV)		
				Start Date	Start Time	End Date	End Time	Period					Radioactivity	Error		Radioactivity	Error		Radioactivity	Error		Radioactivity	Error
	(m)							(d)	(g dry)	(g dry m^{-2})	(g dry m^{-2} d^{-1})	Det.	(Bq g^{-1} dry)	(Bq g^{-1} dry)	Det.	(Bq g^{-1} dry)	(Bq g^{-1} dry)	Det.	(Bq g^{-1} dry)	(Bq g^{-1} dry)	Det.	(Bq g^{-1} dry)	(Bq g^{-1} dry)
P9309	4	1993	9	1993.9.1	10:20	1993.9.30	9:40	28.9722	1.1306	2.2612	0.07805	*	5.225	0.032	*	60.07	1.34				*	0.447	0.039
P9310	4	1993	10	1993.9.30	9:40	1993.11.1	10:20	32.0278	1.6040	3.2080	0.10016	*	3.511	0.025	*	52.07	0.95	*	0.0045	0.0012	*	0.500	0.031
P9311	4	1993	11	1993.11.1	10:20	1993.12.1	9:30	29.9653	1.8821	3.7642	0.12562	*	1.915	0.017	*	34.32	0.60	*	0.0039	0.0010	*	0.555	0.029
P9312	4	1993	12	1993.12.1	9:30	1994.1.5	10:45	35.0521	1.2742	2.5484	0.07270	*	2.816	0.023	*	38.45	1.28	*	0.0054	0.0014	*	0.503	0.035
P9401	4	1994	1	1994.1.5	10:45	1994.2.1	12:50	27.0868	1.4494	2.8988	0.10702	*	4.404	0.027	*	35.76	0.98	*	0.0093	0.0014	*	0.526	0.034
P9402	4	1994	2	1994.2.1	12:50	1994.2.28	10:15	26.8924	1.8083	3.6166	0.13448	*	3.078	0.023	*	24.73	0.67	*	0.0087	0.0012	*	0.570	0.030
P9403	4	1994	3	1994.2.28	10:15	1994.3.18	9:20	17.9618	0.7364	1.4728	0.08200	*	4.807	0.039	*	30.50	1.10	*	0.0122	0.0024	*	0.586	0.058
P9404	4	1994	4	1994.4.18	11:25	1994.4.29	8:16	10.8688	0.6917	1.3834	0.12728	*	1.655	0.030	*	12.41	0.66	*	0.0110	0.0025	*	0.530	0.061
P9405	4	1994	5	1994.4.29	8:16	1994.5.31	9:40	32.0583	2.3148	4.6296	0.14441	*	1.853	0.027	*	38.28	0.63				*	0.548	0.045
P9406	4	1994	6	1994.5.31	9:40	1994.7.1	9:25	30.9896	1.4411	2.8822	0.09301	*	4.127	0.028	*	47.74	0.12	*	0.0069	0.0016	*	0.492	0.036
P9407	4	1994	7	1994.7.1	9:25	1994.8.1	9:55	31.0208	1.0796	2.1592	0.06960	*	2.771	0.026	*	22.12	0.38	*	0.0068	0.0017	*	0.511	0.043
P9408	4	1994	8	1994.8.1	9:55	1994.8.31	9:15	29.9722	1.2206	2.4412	0.08145	*	2.438	0.023	*	55.76	2.05	*	0.0068	0.0015	*	0.499	0.038
P9409	4	1994	9	1994.8.31	9:15	1994.9.30	10:10	30.0382	1.5882	3.1764	0.10575	*	5.495	0.028	*	96.92	1.70	*	0.0044	0.0012	*	0.530	0.032
P9410	4	1994	10	1994.9.30	10:10	1994.10.31	9:55	30.9896	1.1095	2.2190	0.07160	*	4.684	0.030	*	52.34	1.53				*	0.471	0.040
P9411	4	1994	11	1994.10.31	9:50	1994.12.1	9:45	30.9965	0.6913	1.3826	0.04460	*	4.941	0.040	*	55.33	1.78	*	0.0084	0.0024	*	0.552	0.058
P9412	4	1994	12	1994.12.1	9:45	1995.1.5	9:25	34.9861	1.2772	2.5544	0.07301	*	3.777	0.027	*	38.91	0.89	*	0.0067	0.0015	*	0.630	0.040
P9501	4	1995	1	1995.1.5	9:25	1995.2.1	12:05	27.1111	1.2704	2.5408	0.09372	*	3.033	0.026	*	24.49	0.62	*	0.0089	0.0015	*	0.641	0.042
P9502	4	1995	2	1995.2.1	12:05	1995.2.28	10:30	26.9340	1.6205	3.2410	0.12033	*	2.922	0.020	*	29.46	0.92	*	0.0123	0.0017	*	0.505	0.031
P9503	4	1995	3	1995.2.28	10:30	1995.3.29	10:15	28.9896	4.0365	8.0730	0.27848	*	3.177	0.020	*	27.26	0.45	*	0.0079	0.0009	*	0.616	0.025
P9504	4	1995	4	1995.3.29	10:15	1995.5.1	9:38	32.9743	6.4725	12.9450	0.39258	*	2.007	0.018	*	26.23	0.48	*	0.0088	0.0013	*	0.473	0.024
P9505	4	1995	5	1995.5.1	9:38	1995.6.1	10:05	31.0188	2.8816	5.7632	0.18580	*	2.946	0.019	*	70.25	0.56	*	0.0107	0.0012	*	0.726	0.025
P9506	4	1995	6	1995.6.1	10:05	1995.6.30	14:30	29.1840	1.3426	2.6852	0.09201	*	5.524	0.029	*	142.57	0.93	*	0.0075	0.0018	*	0.599	0.036
P9507	4	1995	7	1995.6.30	14:30	1995.8.1	10:20	31.8264	1.5165	3.0330	0.09530	*	6.107	0.034	*	86.38	0.61				*	0.370	0.031
P9508	4	1995	8	1995.8.1	10:20	1995.9.1	9:45	30.9757	1.1664	2.3328	0.07531	*	4.541	0.029	*	59.59	0.48	*	0.0067	0.0020	*	0.563	0.037
P9509	4	1995	9	1995.9.1	9:45	1995.10.3	10:40	32.0382	1.1171	2.2342	0.06974	*	4.608	0.034	*	90.46	0.58	*	0.0096	0.0022	*	0.563	0.039
P9510	4	1995	10	1995.10.3	10:40	1995.11.1	9:10	28.9375	0.9341	1.8682	0.06456	*	3.478	0.029	*	50.60	0.40	*	0.0108	0.0027	*	0.518	0.043
P9511	4	1995	11	1995.11.1	9:10	1995.12.1	9:40	30.0208	1.2365	2.4730	0.08238	*	2.342	0.021	*	38.70	0.27	*	0.0101	0.0021	*	0.599	0.038
P9512	4	1995	12	1995.12.1	9:40	1996.1.5	11:35	35.0799	1.5904	3.1808	0.09067	*	0.713	0.012	*	4.15	0.09	*	0.0075	0.0017	*	0.594	0.032
P9601	4	1996	1	1996.1.5	11:35	1996.1.31	14:30	26.1215	2.5013	5.0026	0.19151	*	1.417	0.014	*	12.62	0.09	*	0.0106	0.0012	*	0.597	0.024
P9602	4	1996	2	1996.1.31	14:30	1996.3.1	14:10	29.9861	7.0698	14.1396	0.47154	*	0.624	0.009	*	7.25	0.06	*	0.0183	0.0012	*	0.446	0.020
P9603	4	1996	3	1996.3.1	14:10	1996.4.1	15:25	31.0521	2.2833	4.5666	0.14706	*	3.529	0.031	*	60.84	0.19	*	0.0118	0.0013	*	0.604	0.025
P9604	4	1996	4	1996.4.1	15:25	1996.4.30	9:25	28.7500	2.4625	4.9250	0.17130	*	3.249	0.018	*	50.06	0.15	*	0.0167	0.0013	*	0.558	0.025
P9605	4	1996	5	1996.4.30	9:25	1996.5.31	9:30	31.0035	2.8112	5.6224	0.18135	*	3.319	0.023	*	71.65	0.15	*	0.0093	0.0013	*	0.502	0.024
P9606	4	1996	6	1996.5.31	9:30	1996.7.1	9:25	30.9965	1.9623	3.9246	0.12661	*	3.617	0.024	*	41.58	0.60	*	0.0061	0.0016	*	0.844	0.031
P9607	4	1996	7	1996.7.1	9:25	1996.8.1	11:35	31.0903	0.9706	1.9412	0.06244	*	4.172	0.029	*	90.97	0.98	*	0.0117	0.0024	*	0.524	0.045
P9608	4	1996	8	1996.8.1	11:35	1996.9.3	17:55	33.2639	1.5258	3.0516	0.09174	*	1.859	0.020	*	19.21	0.33	*	0.0087	0.0018	*	0.753	0.035
P9609	4	1996	9	1996.9.3	17:55	1996.10.2	9:15	28.6389	3.3744	6.7488	0.23565	*	1.511	0.011	*	36.46	0.25	*	0.0031	0.0009	*	0.451	0.019
P9610	4	1996	10	1996.10.2	9:15	1996.11.3	9:35	32.0139	1.3348	2.6696	0.08339	*	4.977	0.029	*	81.49	0.42				*	0.913	0.039
P9611	4	1996	11	1996.11.3	9:35	1996.12.2	14:05	29.1875	1.2589	2.5178	0.08626	*	3.564	0.025	*	99.57	0.42	*	0.0066	0.0020	*	0.521	0.037
P9612	4	1996	12	1996.12.2	14:05	1997.1.6	10:05	34.8333	1.6489	3.2978	0.09467	*	3.143	0.023	*	53.90	0.22	*	0.0083	0.0017	*	0.987	0.036
P9701	4	1997	1	1997.1.6	10:05	1997.1.31	13:35	25.1458	1.1240	2.2480	0.08940	*	1.006	0.016	*	5.93	0.08	*	0.0065	0.0021	*	0.678	0.042
P9702	4	1997	2	1997.1.31	13:35	1997.3.2	9:15	29.8194	3.1818	6.3636	0.21340	*	1.645	0.019	*	15.35	0.08	*	0.0156	0.0017	*	0.953	0.032
P9703	4	1997	3	1997.3.2	9:15	1997.3.29	9:25	27.0069	2.9232	5.8464	0.21648	*	2.257	0.018	*	30.56	0.11	*	0.0120	0.0013	*	0.726	0.024
P9704	4	1997	4	1997.3.29	9:25	1997.5.1	9:45	33.0139	3.0103	6.0206	0.18237	*	2.670	0.021	*	45.06	0.11	*	0.0057	0.0012	*	0.734	0.025
P9705	4	1997	5	1997.5.1	9:45	1997.6.2	9:30	31.9896	3.0919	6.1838	0.19331	*	4.432	0.046	*	70.80	0.62	*	0.0352	0.0037	*	1.199	0.076
P9706	4	1997	6	1997.6.2	9:30	1997.7.1	10:05	29.0243	2.0639	4.1278	0.14222	*	2.963	0.022	*	56.10	0.30				*	0.417	0.032
P9707	4	1997	7	1997.7.1	10:05	1997.7.31	9:20	29.9688	1.2040	2.4080	0.08035	*	2.873	0.023	*	49.54	0.31	*	0.0065	0.0020	*	0.539	0.039
P9708	4	1997	8	1997.7.31	9:20	1997.8.28	9:45	28.0174	1.7373	3.4746	0.12402	*	2.415	0.021	*	36.18	0.18	*	0.0059	0.0017	*	0.484	0.036
P9709	4	1997	9	1997.8.28	9:45	1997.10.1	10:00	34.0104	1.6738	3.3476	0.09843	*	2.216	0.019	*	71.01	0.22				*	0.483	0.029
P9710	4	1997	10	1997.10.1	10:00	1997.10.31	9:10	29.9653	1.1375	2.2750	0.07592	*	2.834	0.027	*	39.80	0.20				*	0.443	0.050
P9711	4	1997	11	1997.10.31	9:10	1997.12.1	10:10	31.0417	1.3842	2.7684	0.08918	*	4.469	0.027	*	123.84	0.27				*	0.557	0.035

P9712	4	1997	12	1997.12.1	10:10	1998.1.5	10:00	34.9931	0.8435	1.6870	0.04821	*	4.291	0.035	*	58.87	0.24				*	1.159	0.055
P9801	4	1998	1	1998.1.5	10:00	1998.1.31	13:35	26.1493	1.7447	3.4894	0.13344	*	2.345	0.018	*	31.65	0.11	*	0.0044	0.0014	*	0.712	0.036
P9802	4	1998	2	1998.1.31	13:35	1998.2.27	15:05	27.0625	1.4571	2.9142	0.10768	*	3.402	0.024	*	37.46	0.15				*	0.785	0.043
P9803	4	1998	3	1998.2.27	15:05	1998.3.27	13:50	27.9479	3.1279	6.2558	0.22384	*	2.565	0.018	*	25.54	0.09	*	0.0077	0.0012	*	0.544	0.026
P9804	4	1998	4	1998.3.27	13:50	1998.4.30	9:50	33.8333	2.2622	4.5244	0.13373	*	2.763	0.023	*	56.08	0.16	*	0.0091	0.0015	*	0.689	0.034
P9805	4	1998	5	1998.4.30	9:50	1998.6.1	9:40	31.9931	3.1725	6.3450	0.19832	*	3.230	0.023	*	52.85	0.14	*	0.0099	0.0014	*	0.581	0.032
P9806	4	1998	6	1998.6.1	9:40	1998.6.30	9:45	29.0035	1.5462	3.0924	0.10662	*	3.547	0.026	*	79.80	0.21				*	0.583	0.041
P9807	4	1998	7	1998.6.30	9:45	1998.8.1	9:20	31.9826	1.6860	3.3720	0.10543	*	2.918	0.023	*	79.62	0.22				*	0.603	0.037
P9808	4	1998	8	1998.8.1	9:20	1998.8.31	10:10	30.0347	0.9342	1.8684	0.06221	*	7.931	0.041	*	111.27	0.34	*	0.0090	0.0028	*	0.637	0.056
P9809	4	1998	9	1998.8.31	10:10	1998.10.1	15:00	31.2014	2.5982	5.1964	0.16654	*	1.360	0.016	*	50.19	0.15				*	0.451	0.026
P9810	4	1998	10	1998.10.1	15:00	1998.10.31	9:45	29.7813	1.4028	2.8056	0.09421	*	2.947	0.026	*	88.28	0.22				*	0.589	0.042
P9811	4	1998	11	1998.10.31	9:45	1998.11.29	10:20	29.0243	0.7285	1.4570	0.05020	*	1.533	0.029	*	9.75	0.09				*	0.548	0.069
P9812	4	1998	12	1998.11.29	10:20	1998.12.28	14:35	29.1771	1.0214	2.0428	0.07001	*	2.394	0.026	*	29.68	0.14	*	0.0184	0.0027	*	0.753	0.054
P9901	4	1999	1	1998.12.28	14:35	1999.1.31	13:25	33.9514	1.2375	2.4750	0.07290	*	1.369	0.020	*	9.16	0.07	*	0.0114	0.0022	*	0.659	0.047
P9902	4	1999	2	1999.1.31	13:35	1999.2.27	12:05	26.9444	1.3399	2.6798	0.09946	*	3.225	0.026	*	49.25	0.16	*	0.0103	0.0021	*	0.583	0.043
P9903	4	1999	3	1999.2.27	12:05	1999.4.1	14:00	33.0799	2.6402	5.2804	0.15963	*	3.507	0.022	*	49.81	0.14	*	0.0114	0.0013	*	0.585	0.027
P9904	4	1999	4	1999.4.1	14:00	1999.5.1	9:40	29.8194	3.7781	7.5562	0.25340	*	2.262	0.017	*	55.16	0.12	*	0.0045	0.0010	*	0.545	0.024
P9905	4	1999	5	1999.5.1	9:40	1999.6.2	9:40	32.0000	3.0269	6.0538	0.18918	*	2.428	0.021	*	38.59	0.13	*	0.0068	0.0014	*	0.820	0.034
P9906	4	1999	6	1999.6.2	9:40	1999.7.1	10:10	29.0208	1.8291	3.6582	0.12605	*	4.966	0.028	*	109.05	0.25	*	0.0075	0.0016	*	0.461	0.034
P9907	4	1999	7	1999.7.1	10:10	1999.7.30	14:15	29.1701	2.1370	4.2740	0.14652	*	2.675	0.020	*	23.89	0.10	*	0.0050	0.0015	*	0.680	0.032
P9908	4	1999	8	1999.7.30	14:15	1999.9.4	13:35	35.9722	2.0340	4.0680	0.11309	*	2.573	0.018	*	17.28	0.19	*	0.0074	0.0014	*	0.520	0.031
P9909	4	1999	9	1999.9.4	13:35	1999.10.2	9:40	27.8368	2.6971	5.3942	0.19378	*	1.543	0.015	*	15.24	0.14	*	0.0094	0.0012	*	0.501	0.026
P9910	4	1999	10	1999.10.2	9:40	1999.11.2	11:00	31.0556	1.5115	3.0230	0.09734	*	2.784	0.022	*	92.17	0.36	*	0.0081	0.0018	*	0.531	0.038
P9911	4	1999	11	1999.11.2	11:00	1999.12.1	10:10	28.9653	0.8009	1.6018	0.05530	*	3.367	0.034	*	76.47	0.39				*	0.563	0.064
P9912	4	1999	12	1999.12.1	10:10	1999.12.28	14:00	27.1597	1.0430	2.0860	0.07680	*	0.755	0.020	*	9.90	0.12				*	0.775	0.055
P0001	4	2000	1	1999.12.28	14:00	2000.2.2	14:30	36.0208	1.4113	2.8226	0.07836	*	2.420	0.023	*	36.08	0.15	*	0.0083	0.0019	*	0.781	0.044
P0002	4	2000	2	2000.2.2	14:30	2000.2.29	13:35	26.9618	1.4659	2.9318	0.10874	*	2.049	0.021	*	18.49	0.09				*	0.617	0.041
P0003	4	2000	3	2000.2.29	13:35	2000.3.31	9:15	30.8194	7.2896	14.5792	0.47305	*	1.064	0.013	*	12.03	0.06	*	0.0092	0.0012	*	0.412	0.024
P0004	4	2000	4	2000.3.31	9:15	2000.4.30	13:35	30.1806	6.5126	13.0252	0.43158	*	1.921	0.016	*	33.00	0.09	*	0.0145	0.0012	*	0.522	0.024
P0005	4	2000	5	2000.4.30	13:35	2000.6.1	13:50	32.0104	2.2482	4.4964	0.14047	*	3.963	0.032	*	79.35	0.19	*	0.0125	0.0021	*	0.696	0.043
P0006	4	2000	6	2000.6.1	13:50	2000.6.30	13:40	28.9931	1.0776	2.1552	0.07434	*	6.499	0.038	*	129.50	0.34	*	0.0080	0.0025	*	0.770	0.052
P0007	4	2000	7	2000.6.30	13:40	2000.8.2	14:10	33.0208	2.5289	5.0578	0.15317	*	3.017	0.021	*	31.94	0.11	*	0.0057	0.0012	*	0.569	0.029
P0008	4	2000	8	2000.8.2	14:10	2000.9.2	7:25	30.7188	1.4394	2.8788	0.09371	*	1.543	0.018	*	12.53	0.07	*	0.0063	0.0019	*	0.634	0.040
P0009	4	2000	9	2000.9.2	7:25	2000.9.30	8:20	28.0382	2.1073	4.2146	0.15032	*	3.366	0.023	*	49.01	0.18	*	0.0048	0.0014	*	0.671	0.030
P0010	4	2000	10	2000.9.30	8:20	2000.11.3	9:15	34.0382	0.9198	1.8396	0.05405	*	7.134	0.041	*	121.86	0.34				*	0.774	0.053
P0011	4	2000	11	2000.11.3	9:15	2000.12.1	11:05	28.0764	0.8327	1.6654	0.05932	*	4.313	0.035	*	59.08	0.21				*	1.128	0.062
P0012	4	2000	12	2000.12.1	11:05	2000.12.29	16:40	28.2326	1.1970	2.3940	0.08480	*	1.238	0.020	*	8.93	0.07				*	0.987	0.048
P0101	4	2001	1	2000.12.29	16:40	2001.2.1	13:20	33.8611	1.4071	2.8142	0.08311	*	2.513	0.024	*	35.75	0.12				*	0.655	0.044
P0102	4	2001	2	2001.2.1	13:20	2001.3.1	13:45	28.0174	1.5405	3.0810	0.10997	*	2.308	0.022	*	19.25	0.08	*	0.0069	0.0019	*	0.605	0.041
P0103	4	2001	3	2001.3.1	13:45	2001.3.30	10:05	28.8472	2.4834	4.9668	0.17218	*	3.104	0.021	*	34.89	0.09	*	0.0098	0.0013	*	0.518	0.028

*: detected

Table 7 Concentration of radionuclides in deposition samples at Tokai-mura (10m)

Sample	Hight	Year	Month	Sampling					Weight			Pb-210(46.50keV)			Be-7(477.59keV)			Cs-137(661.65keV)			K-40(1460.80keV)		
				Start Date	Start Time	End Date	End Time	Period					Radioactivity	Error		Radioactivity	Error		Radioactivity	Error		Radioactivity	Error
	(m)							(d)	(g dry)	(g dry m^{-2})	(g dry m^{-2} d^{-1})	Det.	(Bq g^{-1} dry)	(Bq g^{-1} dry)	Det.	(Bq g^{-1} dry)	(Bq g^{-1} dry)	Det.	(Bq g^{-1} dry)	(Bq g^{-1} dry)	Det.	(Bq g^{-1} dry)	(Bq g^{-1} dry)
R9309	10	1993	9	1993.9.2	11:05	1993.9.30	11:20	28.0104	1.1441	2.2882	0.08169	*	5.881	0.033	*	61.37	1.51	*	0.0078	0.0016	*	0.456	0.039
R9310	10	1993	10	1993.9.30	11:20	1993.11.1	11:50	32.0208	1.4543	2.9086	0.09083	*	4.196	0.027	*	57.75	1.05	*	0.0052	0.0013	*	0.436	0.032
R9311	10	1993	11	1993.11.1	11:50	1993.12.1	10:45	29.9549	1.9678	3.9356	0.13138	*	1.995	0.017	*	35.58	1.28	*	0.0039	0.0010	*	0.457	0.026
R9312	10	1993	12	1993.12.1	10:45	1994.1.5	11:10	35.0174	1.2536	2.5072	0.07160	*	3.768	0.028	*	45.03	1.52	*	0.0116	0.0016	*	0.429	0.037
R9401	10	1994	1	1994.1.5	11:10	1994.2.1	10:50	26.9861	1.6869	3.3738	0.12502	*	5.367	0.029	*	36.81	0.96	*	0.0151	0.0013	*	0.651	0.032
R9402	10	1994	2	1994.2.1	10:50	1994.2.28	11:00	27.0069	1.5961	3.1922	0.11820	*	3.396	0.024	*	28.62	0.80	*	0.0141	0.0014	*	0.628	0.034
R9403	10	1994	3	1994.2.28	11:00	1994.4.8	14:50	39.1597	12.8565	25.7130	0.65662	*	1.005	0.012	*	6.89	0.31	*	0.0121	0.0009	*	0.408	0.021
R9404	10	1994	4	1994.4.8	14:50	1994.4.29	9:13	20.7660	3.6029	7.2058	0.34700	*	0.852	0.013	*	7.92	0.32	*	0.0106	0.0011	*	0.483	0.025
R9405	10	1994	5	1994.4.29	9:13	1994.5.31	10:50	32.0674	3.6029	7.2058	0.22471	*	2.691	0.026	*	29.43	0.67	*	0.0062	0.0016	*	0.616	0.039
R9406	10	1994	6	1994.5.31	10:50	1994.7.1	10:40	30.9931	1.1213	2.2426	0.07236	*	5.439	0.035	*	58.39	0.16	*	0.0068	0.0021	*	0.498	0.045
R9407	10	1994	7	1994.7.1	10:40	1994.8.1	10:55	31.0104	1.2380	2.4760	0.07984	*	2.267	0.022	*	19.20	0.96	*	0.0096	0.0015	*	0.539	0.039
R9408	10	1994	8	1994.8.1	10:55	1994.8.31	10:40	29.9896	1.1984	2.3968	0.07992	*	2.471	0.024	*	53.20	2.18	*	0.0073	0.0015	*	0.645	0.041
R9409	10	1994	9	1994.8.31	10:40	1994.9.30	12:00	30.0556	1.7212	3.4424	0.11453	*	7.336	0.030	*	102.75	1.75				*	0.658	0.032
R9410	10	1994	10	1994.9.30	12:00	1994.10.31	10:50	30.9514	0.9967	1.9934	0.06440	*	5.607	0.034	*	62.58	1.80	*	0.0058	0.0017	*	0.447	0.043
R9411	10	1994	11	1994.10.31	10:50	1994.12.1	10:40	30.9931	0.9995	1.9990	0.06450	*	4.253	0.031	*	42.35	1.36	*	0.0113	0.0018	*	0.454	0.043
R9412	10	1994	12	1994.12.1	10:40	1995.1.5	11:25	35.0313	1.0836	2.1672	0.06186	*	4.926	0.031	*	47.73	1.05	*	0.0111	0.0017	*	0.534	0.041
R9501	10	1995	1	1995.1.5	11:25	1995.2.1	10:50	26.9757	1.2153	2.4306	0.09010	*	3.441	0.026	*	27.63	0.68	*	0.0116	0.0016	*	0.661	0.040
R9502	10	1995	2	1995.2.1	10:50	1995.2.28	11:10	27.0139	1.3316	2.6632	0.09859	*	3.754	0.024	*	37.78	1.13	*	0.0130	0.0019	*	0.546	0.035
R9503	10	1995	3	1995.2.28	11:10	1995.3.29	11:35	29.0174	2.9758	5.9516	0.20510	*	4.220	0.020	*	53.15	0.79	*	0.0125	0.0012	*	0.486	0.022
R9504	10	1995	4	1995.3.29	11:35	1995.5.1	11:10	32.9826	4.9228	9.8456	0.29851	*	2.315	0.016	*	36.36	0.60	*	0.0086	0.0014	*	0.440	0.024
R9505	10	1995	5	1995.5.1	11:10	1995.6.1	12:10	31.0417	2.5208	5.0416	0.16241	*	4.193	0.024	*	88.85	0.72	*	0.0082	0.0013	*	0.543	0.025
R9506	*10*	*1995*	*6*	*1995.6.1*	*12:10*	*1995.6.30*	*16:15*	*29.1701*	*1.5887*	*3.1774*	*0.10893*	*	*5.901*	*0.029*	*	*127.31*	*0.81*				*	*0.539*	*0.030*
R9507	10	1995	7	1995.6.30	16:15	1995.8.1	11:25	31.7986	1.1858	2.3716	0.07458	*	6.114	0.033	*	104.84	0.76				*	0.514	0.036
R9508	10	1995	8	1995.8.1	11:25	1995.9.1	12:00	31.0243	1.2748	2.5496	0.08218	*	4.249	0.026	*	50.75	0.55	*	0.0110	0.0019	*	0.356	0.034
R9509	10	1995	9	1995.9.1	12:00	1995.10.3	12:40	32.0278	1.4676	2.9352	0.09165	*	3.014	0.021	*	47.88	0.40	*	0.0081	0.0017	*	0.483	0.033
R9510	10	1995	10	1995.10.3	12:40	1995.11.1	10:20	28.9028	1.0020	2.0040	0.06934	*	3.259	0.045	*	40.42	0.37	*	0.0211	0.0026	*	0.449	0.042
R9511	10	1995	11	1995.11.1	10:20	1995.12.1	10:40	30.0139	0.9783	1.9566	0.06519	*	2.507	0.026	*	37.09	0.35	*	0.0130	0.0025	*	0.516	0.042
R9512	10	1995	12	1995.12.1	10:40	1996.1.5	10:20	34.9861	1.7667	3.5334	0.10099	*	0.859	0.012	*	4.09	0.09	*	0.0147	0.0016	*	0.490	0.030
R9601	10	1996	1	1996.1.5	10:20	1996.1.31	13:30	26.1319	2.2213	4.4426	0.17001	*	1.859	0.017	*	15.53	0.11	*	0.0142	0.0014	*	0.486	0.024
R9602	10	1996	2	1996.1.31	13:30	1996.3.1	15:15	30.0729	7.9112	15.8224	0.52613	*	0.617	0.008	*	6.88	0.08	*	0.0159	0.0012	*	0.402	0.019
R9603	10	1996	3	1996.3.1	15:15	1996.4.1	14:45	30.9792	2.3283	4.6566	0.15031	*	3.012	0.034	*	50.82	0.18	*	0.0155	0.0014	*	0.542	0.024
R9604	10	1996	4	1996.4.1	14:45	1996.4.30	10:35	28.8264	2.5677	5.1354	0.17815	*	2.980	0.019	*	38.89	0.14	*	0.0148	0.0014	*	0.398	0.023
R9605	10	1996	5	1996.4.30	10:35	1996.5.31	11:00	31.0174	2.5540	5.1080	0.16468	*	4.602	0.027	*	84.84	0.17	*	0.0155	0.0014	*	0.536	0.025
R9606	10	1996	6	1996.5.31	11:00	1996.7.1	10:40	30.9861	1.7766	3.5532	0.11467	*	4.279	0.025	*	48.43	0.67	*	0.0137	0.0017	*	0.748	0.032
R9607	10	1996	7	1996.7.1	10:40	1996.8.1	13:05	31.1007	1.1981	2.3962	0.07705	*	4.055	0.026	*	67.57	0.79	*	0.0089	0.0020	*	0.308	0.035
R9608	10	1996	8	1996.8.1	13:05	1996.9.3	17:35	33.1875	1.4934	2.9868	0.09000	*	2.132	0.020	*	21.87	0.35	*	0.0106	0.0019	*	0.841	0.036
R9609	10	1996	9	1996.9.3	17:35	1996.10.2	11:10	28.7326	3.1649	6.3298	0.22030	*	1.951	0.012	*	41.08	0.26	*	0.0063	0.0009	*	0.472	0.020
R9610	10	1996	10	1996.10.2	11:10	1996.11.3	10:40	31.9792	1.4180	2.8360	0.08868	*	4.919	0.028	*	78.25	0.41	*	0.0075	0.0020	*	0.887	0.037
R9611	10	1996	11	1996.11.3	10:40	1996.12.2	13:40	29.1250	1.2645	2.5290	0.08683	*	4.273	0.026	*	101.87	0.43	*	0.0084	0.0019	*	0.462	0.037
R9612	10	1996	12	1996.12.2	13:40	1997.1.6	11:30	34.9097	1.6901	3.3802	0.09683	*	2.788	0.022	*	52.34	0.22	*	0.0054	0.0017	*	0.896	0.033
R9701	10	1997	1	1997.1.6	11:30	1997.1.31	14:45	25.1354	1.4724	2.9448	0.11716	*	1.049	0.014	*	5.14	0.07	*	0.0169	0.0018	*	0.504	0.033
R9702	10	1997	2	1997.1.31	14:20	1997.3.2	9:55	29.8160	6.5898	13.1796	0.44203	*	0.994	0.013	*	7.61	0.05	*	0.0151	0.0012	*	0.593	0.022
R9703	10	1997	3	1997.3.2	10:30	1997.3.29	10:30	27.0000	4.4855	8.9710	0.33226	*	1.396	0.014	*	19.94	0.08	*	0.0138	0.0011	*	0.646	0.021
R9704	10	1997	4	1997.3.29	10:30	1997.5.1	11:00	33.0208	2.9489	5.8978	0.17861	*	3.637	0.022	*	53.14	0.12	*	0.0070	0.0012	*	0.717	0.025
R9705	10	1997	5	1997.5.1	11:00	1997.6.2	11:30	32.0208	5.8933	11.7866	0.36809	*	1.947	0.017	*	37.70	0.27	*	0.0100	0.0013	*	0.422	0.027
R9706	10	1997	6	1997.6.2	11:30	1997.7.1	11:30	29.0000	1.6558	3.3116	0.11419	*	4.073	0.025	*	73.09	0.38				*	0.537	0.038
R9707	10	1997	7	1997.7.1	11:30	1997.7.31	11:00	29.9792	1.0941	2.1882	0.07299	*	2.800	0.025	*	55.52	0.34	*	0.0081	0.0023	*	0.486	0.040
R9708	10	1997	8	1997.7.31	11:00	1997.8.28	11:00	28.0000	1.2921	2.5842	0.09229	*	3.105	0.026	*	48.26	0.24				*	0.541	0.045
R9709	10	1997	9	1997.8.28	11:00	1997.10.1	11:15	34.0104	2.0432	4.0864	0.12015	*	2.799	0.021	*	65.86	0.19	*	0.0042	0.0014	*	0.477	0.032
R9710	10	1997	10	1997.10.1	11:15	1997.10.31	10:35	29.9722	0.9731	1.9462	0.06493	*	2.510	0.029	*	38.91	0.22	*	0.0271	0.0029	*	0.434	0.056

R9711	10	1997	11	1997.10.31	10:35	1997.12.1	14:35	31.1667	1.0097	2.0194	0.06479	*	5.365	0.034	*	130.81	0.33				*	0.497	0.042
R9712	10	1997	12	1997.12.1	14:35	1998.1.5	11:10	34.8576	1.0243	2.0486	0.05877	*	4.475	0.033	*	50.11	0.21				*	0.703	0.056
R9801	10	1998	1	1998.1.5	11:10	1998.1.31	14:35	26.1424	1.8605	3.7210	0.14234	*	2.953	0.019	*	38.50	0.12				*	0.532	0.032
R9802	10	1998	2	1998.1.31	14:35	1998.2.27	16:15	27.0694	1.4658	2.9316	0.10830	*	4.074	0.026	*	39.41	0.16	*	0.0100	0.0019	*	0.693	0.042
R9803	10	1998	3	1998.2.27	16:15	1998.3.27	15:05	27.9514	2.7099	5.4198	0.19390	*	2.792	0.019	*	29.35	0.10	*	0.0113	0.0013	*	0.544	0.027
R9804	10	1998	4	1998.3.27	15:05	1998.4.30	11:35	33.8542	2.2329	4.4658	0.13191	*	4.424	0.027	*	75.47	0.21	*	0.0083	0.0015	*	0.576	0.034
R9805	10	1998	5	1998.4.30	11:35	1998.6.1	11:25	31.9931	2.1258	4.2516	0.13289	*	3.850	0.027	*	84.48	0.19	*	0.0085	0.0016	*	0.593	0.035
R9806	10	1998	6	1998.6.1	11:25	1998.6.30	11:10	28.9896	1.2501	2.5002	0.08624	*	4.615	0.031	*	108.99	0.28				*	0.475	0.046
R9807	10	1998	7	1998.6.30	11:10	1998.8.1	10:55	31.9896	1.3287	2.6574	0.08307	*	4.823	0.031	*	103.10	0.26				*	0.654	0.044
R9808	10	1998	8	1998.8.1	10:55	1998.8.31	12:25	30.0625	0.9534	1.9068	0.06343	*	7.902	0.041	*	106.19	0.34				*	0.574	0.054
R9809	10	1998	9	1998.8.31	12:25	1998.10.1	16:20	31.1632	2.4614	4.9228	0.15797	*	2.193	0.017	*	59.31	0.17	*	0.0043	0.0011	*	0.454	0.026
R9810	10	1998	10	1998.10.1	16:20	1998.10.31	11:20	29.7917	1.2162	2.4324	0.08165	*	4.286	0.032	*	107.51	0.26				*	0.498	0.044
R9811	10	1998	11	1998.10.31	11:20	1998.11.29	10:40	28.9722	1.0232	2.0464	0.07063	*	1.206	0.022	*	9.08	0.08				*	0.489	0.051
R9812	10	1998	12	1998.11.29	10:40	1998.12.28	15:25	29.1979	1.2049	2.4098	0.08253	*	2.590	0.024	*	27.56	0.13	*	0.0090	0.0023	*	0.605	0.047
R9901	10	1999	1	1998.12.28	15:25	1999.1.31	13:55	33.9375	1.3124	2.6248	0.07734	*	1.182	0.018	*	8.75	0.07	*	0.0101	0.0021	*	0.548	0.043
R9902	10	1999	2	1999.1.31	13:55	1999.2.27	12:40	26.9479	1.5487	3.0974	0.11494	*	3.606	0.026	*	44.24	0.18	*	0.0121	0.0019	*	0.547	0.038
R9903	10	1999	3	1999.2.27	12:40	1999.4.1	15:00	33.0972	2.9916	5.9832	0.18078	*	3.411	0.021	*	49.00	0.14	*	0.0130	0.0013	*	0.538	0.026
R9904	10	1999	4	1999.4.1	15:00	1999.5.1	10:45	29.8229	3.6730	7.3460	0.24632	*	2.696	0.019	*	70.00	0.15	*	0.0054	0.0010	*	0.477	0.023
R9905	10	1999	5	1999.5.1	10:45	1999.6.2	10:40	31.9965	2.3585	4.7170	0.14742	*	3.420	0.024	*	60.21	0.17	*	0.0080	0.0016	*	0.502	0.033
R9906	10	1999	6	1999.6.2	10:40	1999.7.1	12:05	29.0590	1.3489	2.6978	0.09284	*	5.538	0.032	*	139.86	0.33	*	0.0091	0.0020	*	0.527	0.041
R9907	10	1999	7	1999.7.1	12:05	1999.7.30	15:45	29.1528	1.1857	2.3714	0.08134	*	3.927	0.029	*	66.00	0.22				*	0.597	0.047
R9908	10	1999	8	1999.7.30	15:45	1999.9.4	14:55	35.9653	1.3829	2.7658	0.07690	*	1.926	0.020	*	20.25	0.26	*	0.0060	0.0020	*	0.513	0.040
R9909	10	1999	9	1999.9.4	14:55	1999.10.2	11:05	27.8403	1.7178	3.4356	0.12340	*	2.079	0.019	*	25.50	0.22	*	0.0093	0.0017	*	0.581	0.035
R9910	10	1999	10	1999.10.2	11:05	1999.11.2	12:20	31.0521	1.6908	3.3816	0.10890	*	3.889	0.024	*	100.57	0.37				*	0.398	0.033
R9911	10	1999	11	1999.11.2	12:20	1999.12.1	11:25	28.9618	2.8000	5.6000	0.19336	*	0.840	0.012	*	14.21	0.10				*	0.770	0.028
R9912	10	1999	12	1999.12.1	11:25	1999.12.28	14:45	27.1389	3.3745	6.7490	0.24868	*	0.287	0.008	*	4.50	0.05	*	0.0033	0.0010	*	0.552	0.023
R0001	10	2000	1	1999.12.28	14:45	2000.2.2	15:35	36.0347	1.9184	3.8368	0.10648	*	2.565	0.020	*	30.87	0.13	*	0.0048	0.0016	*	0.522	0.033
R0002	10	2000	2	2000.2.2	15:35	2000.2.29	14:55	26.9722	1.8226	3.6452	0.13515	*	1.944	0.019	*	15.91	0.09	*	0.0086	0.0016	*	0.527	0.034
R0003	10	2000	3	2000.2.29	14:55	2000.3.31	10:15	30.8056	10.7216	21.4432	0.69608	*	0.735	0.011	*	8.25	0.05	*	0.0105	0.0011	*	0.424	0.023
R0004	10	2000	4	2000.3.31	10:15	2000.4.30	15:05	30.2014	9.4115	18.8230	0.62325	*	1.541	0.014	*	24.33	0.07	*	0.0142	0.0011	*	0.506	0.023
R0005	10	2000	5	2000.4.30	15:05	2000.6.1	15:20	32.0104	2.3286	4.6572	0.14549	*	4.506	0.030	*	78.27	0.18	*	0.0106	0.0017	*	0.610	0.036
R0006	10	2000	6	2000.6.1	15:20	2000.6.30	15:20	29.0000	0.8774	1.7548	0.06051	*	7.945	0.043	*	128.11	0.39	*	0.0121	0.0029	*	0.709	0.059
R0007	10	2000	7	2000.6.30	15:20	2000.8.2	15:45	33.0174	2.3540	4.7080	0.14259	*	3.168	0.021	*	37.36	0.12	*	0.0069	0.0014	*	0.441	0.027
R0008	10	2000	8	2000.8.2	15:45	2000.9.2	8:30	30.6979	1.0095	2.0190	0.06577	*	1.735	0.023	*	18.68	0.10				*	0.567	0.050
R0009	10	2000	9	2000.9.2	8:30	2000.9.30	10:20	28.0764	1.7296	3.4592	0.12321	*	3.939	0.024	*	63.67	0.22	*	0.0055	0.0016	*	0.623	0.033
R0010	10	2000	10	2000.9.30	10:20	2000.11.3	11:10	34.0347	1.0856	2.1712	0.06379	*	7.625	0.039	*	111.47	0.31				*	0.706	0.047
R0011	10	2000	11	2000.11.3	11:10	2000.12.1	12:20	28.0486	1.0536	2.1072	0.07513	*	3.586	0.029	*	46.98	0.18				*	0.808	0.050
R0012	10	2000	12	2000.12.1	12:20	2000.12.29	17:15	28.2049	1.2966	2.5932	0.09194	*	1.147	0.019	*	9.25	0.07	*	0.0102	0.0021	*	0.901	0.044
R0101	10	2001	1	2000.12.29	17:15	2001.2.1	14:45	33.8958	2.1884	4.3768	0.12913	*	2.310	0.018	*	32.91	0.10	*	0.0088	0.0014	*	0.563	0.031
R0102	10	2001	2	2001.2.1	14:45	2001.3.1	12:30	27.9063	1.9793	3.9586	0.14185	*	2.158	0.018	*	15.43	0.07	*	0.0119	0.0016	*	0.532	0.033
R0103	10	2001	3	2001.3.1	12:30	2001.3.30	11:40	28.9653	2.5365	5.0730	0.17514	*	3.210	0.021	*	35.59	0.10	*	0.0105	0.0013	*	0.518	0.028

*: detected

Table 8 Concentration of radionuclides in soil samples at Tokai-mura

Sample	Place	Sampling Date		Pb-210(46.50keV)			Cs-137(661.65keV)			K-40(1460.80keV)		
				Radioactivity	Error		Radioactivity	Error		Radioactivity	Error	
				(Bq g^{-1} dry)	(Bq g^{-1} dry)		(Bq g^{-1} dry)	(Bq g^{-1} dry)		(Bq g^{-1} dry)	(Bq g^{-1} dry)	
All												
Soil 01	Shirakata	1993.2.5	*	0.0431	0.0021		*	0.0140	0.0002	*	0.342	0.004
Soil 02	Oka	1993.2.5	*	0.0552	0.0017		*	0.0123	0.0002	*	0.282	0.003
Soil 03	Yashiki	1993.2.5	*	0.0334	0.0024		*	0.0052	0.0002	*	0.266	0.004
Soil 04	Terunuma	1993.2.5	*	0.0397	0.0018		*	0.0073	0.0002	*	0.288	0.003
Soil 05	Oshinobe	1991.4.24					*	0.0083				
200mesh pass (<200mesh)												
Soil 01	Shirakata	1993.2.5	*	0.0744	0.0104		*	0.0227	0.0013	*	0.464	0.029
Soil 02	Oka	1993.2.5	*	0.0639	0.0098		*	0.0165	0.0012	*	0.399	0.027
Soil 03	Yashiki	1993.2.5	*	0.0398	0.0077		*	0.0087	0.0009	*	0.431	0.021
Soil 04	Terunuma	1993.2.5	*	0.0408	0.0084		*	0.0106	0.0010	*	0.421	0.022
Soil 05	Oshinobe	1991.4.24	*	0.0411	0.0079		*	0.0087	0.0009	*	0.375	0.019

*: detected

Table 9 Deposition of satble elements in deposition samples at Tokai-mura

Sample	Hight	Year	Month	Sampling					Weight			Na	Error Na	Mg	Error Mg
				Start Date	Start Time	End Date	End Time	Period							
	(m)							(d)	(g)	(g/m2)	(g/m2/d)	(μg/m2/d)	(μg/m2/d)	(μg/m2/d)	(μg/m2/d)
Q9309	1.5	1993	9	1993.9.2	11:10	1993.9.30	10:35	27.9757	1.1212	2.2424	0.080155	6796	62	N.D.	N.D.
Q9310	1.5	1993	10	1993.9.30	10:35	1993.11.1	11:10	32.0243	1.4097	2.8194	0.088039	9029	83	N.D.	N.D.
Q9311	1.5	1993	11	1993.11.1	11:10	1993.12.1	10:10	29.9583	1.8242	3.6484	0.121782	19021	175	2267	1388
Q9312	1.5	1993	12	1993.12.1	10:10	1994.1.5	11:35	35.0590	0.9263	1.8526	0.052842	1914	19	N.D.	N.D.
Q9401	1.5	1994	1	1994.1.5	11:35	1994.2.1	13:35	27.0833	1.3710	2.7420	0.101243	5576	54	1655	941
Q9402	1.5	1994	2	1994.2.1	13:35	1994.2.28	11:25	26.9097	1.2500	2.5000	0.092903	3175	31	N.D.	N.D.
Q9403	1.5	1994	3	1994.2.28	11:25	1994.4.8	14:10	39.1146	9.0574	18.1148	0.463121	10778	115	7641	5874
Q9404	1.5	1994	4	1994.4.8	14:10	1994.4.29	8:47	20.7757	2.8016	5.6032	0.269700	7810	83	N.D.	N.D.
Q9405	1.5	1994	5	1994.4.29	8:47	1994.5.31	10:15	32.0611	3.9833	7.9666	0.248482	9969	95	4230	2196
Q9406	1.5	1994	6	1994.5.31	10:15	1994.7.1	10:05	30.9931	1.3714	2.7428	0.088497	4547	43	1532	726
Q9407	1.5	1994	7	1994.7.1	10:05	1994.8.1	10:30	31.0174	1.0291	2.0582	0.066356	4125	39	1318	622
Q9408	1.5	1994	8	1994.8.1	10:30	1994.8.31	9:55	29.9757	1.0659	2.1318	0.071118	6033	57	N.D.	N.D.
Q9409	1.5	1994	9	1994.8.31	9:55	1994.9.30	11:10	30.0521	1.6276	3.2552	0.108319	14501	137	N.D.	N.D.
Q9410	1.5	1994	10	1994.9.30	11:10	1994.10.31	10:25	30.9688	0.9608	1.9616	0.063341	6216	59	N.D.	N.D.
Q9411	1.5	1994	11	1994.10.31	10:25	1994.12.1	10:20	30.9965	0.6663	1.3326	0.042992	2317	22	N.D.	N.D.
Q9412	1.5	1994	12	1994.12.1	10:20	1995.1.5	10:10	34.9931	0.8101	1.6202	0.046301	2414	23	N.D.	N.D.
Q9501	1.5	1995	1	1995.1.5	10:10	1995.2.1	11:35	27.0590	0.8836	1.7672	0.065309	3599	35	916	597
Q9502	1.5	1995	2	1995.2.1	11:35	1995.2.28	10:50	26.9688	0.9169	1.8338	0.067997	2487	26	N.D.	N.D.
Q9503	1.5	1995	3	1995.2.28	10:50	1995.3.29	10:55	29.0035	2.7291	5.4582	0.188191	13459	136	5382	1730
Q9504	1.5	1995	4	1995.3.29	10:55	1995.5.1	10:30	32.9826	3.4674	6.9348	0.210256	9323	95	N.D.	N.D.
Q9505	1.5	1995	5	1995.5.1	10:30	1995.6.1	11:10	31.0278	2.6942	5.3884	0.173664	13210	133	2158	1469
Q9506	1.5	1995	6	1995.6.1	11:10	1995.6.30	15:15	29.1701	1.8673	3.7346	0.128028	14243	143	3140	1080
Q9507	1.5	1995	7	1995.6.30	15:15	1995.8.1	10:50	31.8160	0.9971	1.9942	0.062679	1155	14	N.D.	N.D.
Q9508	1.5	1995	8	1995.8.1	10:50	1995.9.1	10:20	30.9792	1.0240	2.0480	0.066109	1969	22	498	393
Q9509	1.5	1995	9	1995.9.1	10:20	1995.10.3	11:35	32.0521	1.2120	2.4240	0.075627	5754	53	N.D.	N.D.
Q9510	1.5	1995	10	1995.10.3	11:35	1995.11.1	9:55	28.9306	0.8644	1.7288	0.059757	4765	44	812	400
P9309	4	1993	9	1993.9.1	10:20	1993.9.30	9:40	28.9722	1.1306	2.2612	0.078047	5431	50	N.D.	N.D.
P9310	4	1993	10	1993.9.30	9:40	1993.11.1	10:20	32.0278	1.6040	3.2080	0.100163	8123	75	N.D.	N.D.
P9311	4	1993	11	1993.11.1	10:20	1993.12.1	9:30	29.9653	1.8821	3.7642	0.125619	21109	194	2650	1508
P9312	4	1993	12	1993.12.1	9:30	1994.1.5	10:45	35.0521	1.2742	2.5484	0.072703	1919	19	939	559
P9401	4	1994	1	1994.1.5	10:45	1994.2.1	12:50	27.0868	1.4494	2.8988	0.107019	4850	48	N.D.	N.D.
P9402	4	1994	2	1994.2.1	12:50	1994.2.28	10:15	26.8924	1.8083	3.6166	0.134484	3759	38	N.D.	N.D.
P9403	4	1994	3	1994.2.28	10:15	1994.3.18	9:20	17.9618	0.7364	1.4728	0.081996	4125	40	N.D.	N.D.
P9404	4	1994	4	1994.4.18	11:25	1994.4.29	8:16	10.8688	0.6917	1.3834	0.127282	4922	50	3269	1388
P9405	4	1994	5	1994.4.29	8:16	1994.5.31	9:40	32.0583	2.3148	4.6296	0.144412	7672	73	1958	924
P9406	4	1994	6	1994.5.31	9:40	1994.7.1	9:25	30.9896	1.4411	2.8822	0.093005	3832	37	N.D.	N.D.
P9407	4	1994	7	1994.7.1	9:25	1994.8.1	9:55	31.0208	1.0796	2.1592	0.069605	3732	36	N.D.	N.D.
P9408	4	1994	8	1994.8.1	9:55	1994.8.31	9:15	29.9722	1.2206	2.4412	0.081449	5396	52	1694	584
P9409	4	1994	9	1994.8.31	9:15	1994.9.30	10:10	30.0382	1.5882	3.1764	0.105745	11947	113	N.D.	N.D.
P9410	4	1994	10	1994.9.30	10:10	1994.10.31	9:55	30.9896	1.1095	2.2190	0.071605	5500	52	N.D.	N.D.
P9411	4	1994	11	1994.10.31	9:50	1994.12.1	9:45	30.9965	0.6913	1.3826	0.044605	2100	20	1317	389
P9412	4	1994	12	1994.12.1	9:45	1995.1.5	9:25	34.9861	1.2772	2.5544	0.073012	3314	32	N.D.	N.D.
P9501	4	1995	1	1995.1.5	9:25	1995.2.1	12:05	27.1111	1.2704	2.5408	0.093718	4922	47	1869	849
P9502	4	1995	2	1995.2.1	12:05	1995.2.28	10:30	26.9340	1.6205	3.2410	0.120331	4573	48	N.D.	N.D.
P9503	4	1995	3	1995.2.28	10:30	1995.3.29	10:15	28.9896	4.0365	8.0730	0.278479	19204	193	N.D.	N.D.
P9504	4	1995	4	1995.3.29	10:15	1995.5.1	9:38	32.9743	6.4725	12.9450	0.392578	10823	124	N.D.	N.D.
P9505	4	1995	5	1995.5.1	9:38	1995.6.1	10:05	31.0188	2.8816	5.7632	0.185797	14168	143	N.D.	N.D.
P9506	4	1995	6	1995.6.1	10:05	1995.6.30	14:30	29.1840	1.3426	2.6852	0.092009	12819	129	1349	763
P9507	4	1995	7	1995.6.30	14:30	1995.8.1	10:20	31.8264	1.5165	3.0330	0.095298	1277	16	N.D.	N.D.
P9508	4	1995	8	1995.8.1	10:20	1995.9.1	9:45	30.9757	1.1664	2.3328	0.075311	2082	24	N.D.	N.D.
P9509	4	1995	9	1995.9.1	9:45	1995.10.3	10:40	32.0382	1.1171	2.2342	0.069736	4915	45	N.D.	N.D.
P9510	4	1995	10	1995.10.3	10:40	1995.11.1	9:10	28.9375	0.9341	1.8682	0.064560	4258	39	N.D.	N.D.
P9511	11	1995	11	1995.11.1	9:10	1995.12.1	9:40	30.0208	1.2365	2.4730	0.082376			N.D.	N.D.
R9309	10	1993	9	1993.9.2	11:05	1993.9.30	11:20	28.0104	1.1441	2.2882	0.081691	7407	68	N.D.	N.D.
R9310	10	1993	10	1993.9.30	11:20	1993.11.1	11:50	32.0208	1.4543	2.9086	0.090835	8497	78	1325	863
R9311	10	1993	11	1993.11.1	11:50	1993.12.1	10:45	29.9549	1.9678	3.9356	0.131384	19725	182	N.D.	N.D.
R9312	10	1993	12	1993.12.1	10:45	1994.1.5	11:10	35.0174	1.2536	2.5072	0.071599	2005	20	N.D.	N.D.
R9401	10	1994	1	1994.1.5	11:10	1994.2.1	10:50	26.9861	1.6869	3.3738	0.125020	5705	57	N.D.	N.D.
R9402	10	1994	2	1994.2.1	10:50	1994.2.28	11:00	27.0069	1.5961	3.1922	0.118199	3178	33	N.D.	N.D.
R9403	10	1994	3	1994.2.28	11:00	1994.4.8	14:50	39.1597	12.8565	25.7130	0.656619	11217	126	17086	8608
R9404	10	1994	4	1994.4.8	14:50	1994.4.29	9:13	20.7660	3.6029	7.2058	0.347000	7626	88	N.D.	N.D.
R9405	10	1994	5	1994.4.29	9:13	1994.5.31	10:50	32.0674	3.6029	7.2058	0.224708	8680	83	N.D.	N.D.
R9406	10	1994	6	1994.5.31	10:50	1994.7.1	10:40	30.9931	1.1213	2.2426	0.072358	3951	38	1319	649
R9407	10	1994	7	1994.7.1	10:40	1994.8.1	10:55	31.0104	1.2380	2.4760	0.079844	4232	41	N.D.	N.D.
R9408	10	1994	8	1994.8.1	10:55	1994.8.31	10:40	29.9896	1.1984	2.3968	0.079921	6137	59	1456	574
R9409	10	1994	9	1994.8.31	10:40	1994.9.30	12:00	30.0556	1.7212	3.4424	0.114535	13397	127	N.D.	N.D.
R9410	10	1994	10	1994.9.30	12:00	1994.10.31	10:50	30.9514	0.9967	1.9934	0.064404	5913	56	895	544
R9411	10	1994	11	1994.10.31	10:50	1994.12.1	10:40	30.9931	0.9995	1.9990	0.064498	2433	25	N.D.	N.D.
R9412	10	1994	12	1994.12.1	10:40	1995.1.5	11:25	35.0313	1.0836	2.1672	0.061865	2658	25	N.D.	N.D.
R9501	10	1995	1	1995.1.5	11:25	1995.2.1	10:50	26.9757	1.2153	2.4306	0.090103	3763	36	N.D.	N.D.
R9502	10	1995	2	1995.2.1	10:50	1995.2.28	11:10	27.0139	1.3316	2.6632	0.098586	2790	30	1536	894
R9503	10	1995	3	1995.2.28	11:10	1995.3.29	11:35	29.0174	2.9758	5.9516	0.205105	15895	161	N.D.	N.D.
R9504	10	1995	4	1995.3.29	11:35	1995.5.1	11:10	32.9826	4.9228	9.8456	0.298509	11201	114	N.D.	N.D.
R9505	10	1995	5	1995.5.1	11:10	1995.6.1	12:10	31.0417	2.5208	5.0416	0.162414	13905	141	N.D.	N.D.
R9506	10	1995	6	1995.6.1	12:10	1995.6.30	16:15	29.1701	1.5887	3.1774	0.108926	14074	141	N.D.	N.D.
R9507	10	1995	7	1995.6.30	16:15	1995.8.1	11:25	31.7986	1.1858	2.3716	0.074582	2684	27	N.D.	N.D.
R9508	10	1995	8	1995.8.1	11:25	1995.9.1	12:00	31.0243	1.2748	2.5496	0.082181	1983	23	N.D.	N.D.
R9509	10	1995	9	1995.9.1	12:00	1995.10.3	12:40	32.0278	1.4676	2.9352	0.091645	4279	39	N.D.	N.D.
R9510	10	1995	10	1995.10.3	12:40	1995.11.1	10:20	28.9028	1.0020	2.0040	0.069336	3827	35	N.D.	N.D.

N.D.: Not detected

Sample	Al	Error Al	Cl	Error Cl	K	Error K	Ca	Error Ca	Sc	Error Sc	Tl	Error Tl	V	Error V
	(μg/m2/d)	(μg/m2/d)	(μg/m2/d)	(μg/m2/d)	(μg/m2/d)	(μg/m2/d)	(μg/m2/d)	(μg/m2/d)	(μg/m2/d)	(μg/m2/d)	(μg/m2/d)	(μg/m2/d)	(μg/m2/d)	(μg/m2/d)
Q9309	1143	13	9294	253	781	68	1458	436	0.2475	0.0092	N.D.	N.D.	3.22	0.39
Q9310	1280	16	14766	410	750	93	N.D.	N.D.	0.2474	0.0092	N.D.	N.D.	2.39	0.47
Q9311	1515	21	30897	847	1041	201	3020	2448	0.2908	0.0108	N.D.	N.D.	2.82	0.67
Q9312	1395	15	1658	517	579	69	710	199	0.2999	0.0110	N.D.	N.D.	2.81	0.29
Q9401	2775	30	6801	2119	1224	187	1789	501	0.5912	0.0216	259.6	117.5	5.26	0.58
Q9402	3620	38	3986	1242	1124	110	1453	429	0.6826	0.0252	341.4	127.0	7.49	0.66
Q9403	33975	351	10907	3404	4294	579	5980	1960	7.2052	0.2644	N.D	N.D	53.87	4.85
Q9404	16554	176	8220	2564	2763	418	6629	1536	3.8268	0.1406	562.2	421.9	31.36	2.66
Q9405	6113	58	17185	488	2536	196	4328	889	1.3756	0.0510	N.D.	N.D.	11.06	1.57
Q9406	1710	17	6976	193	674	76	1513	278	0.3416	0.0128	N.D.	N.D.	3.81	0.51
Q9407	1426	13	6672	182	858	100	1121	243	0.2734	0.0102	N.D.	N.D.	3.08	0.41
Q9408	2201	44	10747	339	707	105	1252	311	0.3415	0.0127	N.D.	N.D.	5.41	0.88
Q9409	1867	22	32447	880	797	258	2503	452	0.3321	0.0128	N.D.	N.D.	5.48	0.73
Q9410	1216	14	12818	354	721	122	1616	278	0.2363	0.0091	N.D.	N.D.	3.45	0.43
Q9411	1227	14	4221	123	462	51	783	168	0.2300	0.0087	N.D.	N.D.	2.44	0.33
Q9412	1873	20	4919	141	546	56	888	171	0.3425	0.0129	126.6	77.6	3.34	0.43
Q9501	2702	29	5572	163	872	84	1364	260	0.5678	0.0214	N.D.	N.D.	6.12	0.68
Q9502	3723	39	2560	86	828	109	2085	319	0.7555	0.0284	N.D.	N.D.	7.02	0.78
Q9503	4943	56	33145	920	1782	217	5117	879	0.9026	0.0344	N.D.	N.D.	9.49	1.37
Q9504	9011	99	17787	522	1959	178	2887	535	2.0640	0.0777	784.7	364.5	16.83	2.09
Q9505	4367	48	31968	883	2310	241	3070	559	0.8508	0.0324	N.D.	N.D.	13.34	1.47
Q9506	2006	24	33713	917	1701	232	1593	467	0.3512	0.0135	N.D.	N.D.	6.50	0.83
Q9507	1006	11	1692	59	580	70	1110	206	0.2101	0.0081	98.7	65.4	4.21	0.43
Q9508	1735	26	1209	72	789	97	1045	257	0.3793	0.0144	N.D.	N.D.	4.33	0.45
Q9509	1312	20	9310	503	850	92	1994	350	0.2652	0.0100	N.D.	N.D.	3.73	0.44
Q9510	1421	22	7165	388	553	72	1051	241	0.2888	0.0108	N.D.	N.D.	3.26	0.39
P9309	1196	20	7188	206	661	52	774	535	0.2218	0.0082	N.D.	N.D.	3.50	0.52
P9310	1522	18	13120	366	852	86	1542	858	0.3181	0.0118	N.D.	N.D.	4.01	0.49
P9311	1453	21	31439	859	1197	187	N.D.	N.D.	0.2958	0.0110	N.D.	N.D.	2.54	0.72
P9312	1669	20	2474	771	941	82	1482	244	0.3770	0.0138	N.D.	N.D.	3.30	0.39
P9401	3310	39	6266	1952	1209	197	1420	441	0.6852	0.0251	175.5	125.3	5.53	0.70
P9402	4090	48	4462	1391	1423	163	2408	537	0.8920	0.0330	N.D.	N.D.	8.05	0.88
P9403	2434	27	4300	1340	1116	141	1597	342	0.5641	0.0208	353.3	110.0	5.39	0.52
P9404	4666	50	6752	2104	1463	210	1989	608	0.9629	0.0355	302.8	164.4	6.36	0.84
P9405	1041	12	13414	364	1949	159	4347	540	0.3758	0.0142	N.D.	N.D.	2.08	0.46
P9406	2163	20	6689	185	712	75	1585	241	0.4232	0.0157	N.D.	N.D.	5.45	0.62
P9407	1651	16	5629	155	685	78	1890	261	0.3604	0.0134	N.D.	N.D.	3.78	0.47
P9408	1662	25	10322	324	572	106	1685	321	0.4133	0.0153	142.1	90.1	4.27	0.52
P9409	1548	19	20663	569	1348	242	1401	296	0.3268	0.0126	N.D.	N.D.	3.63	0.60
P9410	1455	17	11126	310	742	115	1542	248	0.2871	0.0110	151.0	95.9	4.07	0.50
P9411	1299	15	3233	96	470	42	807	146	0.2581	0.0098	129.1	65.0	2.53	0.34
P9412	2751	31	6868	197	1039	77	1518	247	0.5001	0.0189	244.2	119.5	5.46	0.68
P9501	4252	47	7652	224	1212	115	1470	285	0.8052	0.0303	N.D.	N.D.	6.27	0.90
P9502	4758	52	5302	168	1517	239	1855	330	1.0873	0.0410	349.7	191.9	6.88	1.01
P9503	6488	75	44739	1240	3521	329	9639	1198	1.2867	0.0491	697.5	395.3	14.53	1.97
P9504	19822	213	21306	653	3364	577	5688	1063	4.1212	0.1552	1653.5	723.4	36.14	4.27
P9505	4656	54	26910	750	2139	237	2716	520	1.0023	0.0380	943.4	318.3	11.11	1.45
P9506	1424	16	25805	698	1241	205	1746	280	0.2679	0.0104	295.3	132.6	4.07	0.55
P9507	1422	17	2182	77	659	80	1252	217	0.2719	0.0105	N.D.	N.D.	4.54	0.54
P9508	1881	29	2622	147	881	117	1587	308	0.3953	0.0151	N.D.	N.D.	4.25	0.49
P9509	1529	24	7208	390	889	79	1900	293	0.3107	0.0117	166.1	97.2	4.08	0.47
P9510	1651	25	6196	336	772	69	1351	235	0.3426	0.0128	N.D.	N.D.	2.85	0.40
P9511	2904	44	3411	191			2553	524			212.1	121.8	5.16	0.62
R9309	949	12	10770	303	819	78	1934	523	0.1830	0.0069	N.D.	N.D.	3.31	0.39
R9310	1474	19	13072	367	720	98	1441	632	0.2985	0.0110	109.0	90.0	3.11	0.50
R9311	1774	24	34448	946	1213	274	2268	1212	0.3349	0.0125	N.D.	N.D.	3.37	0.76
R9312	2207	24	2302	718	805	88	1299	367	0.4754	0.0174	N.D.	N.D.	4.41	0.43
R9401	4435	47	7641	2381	1385	223	2551	933	0.8768	0.0320	348.7	161.7	7.43	0.82
R9402	5511	60	3618	1128	1475	154	2726	690	1.0875	0.0400	178.5	157.2	9.38	0.96
R9403	49566	524	10836	3387	4639	575	8490	3012	11.6275	0.4263	2243.8	1169.4	67.62	7.01
R9404	26126	278	8181	2555	4601	564	7381	1419	6.2497	0.2293	1052.1	639.1	36.93	3.86
R9405	5824	55	14029	408	2741	207	3644	665	1.3096	0.0485	313.8	229.8	12.87	1.54
R9406	1893	17	3642	108	716	76	1514	300	0.3957	0.0147	117.8	73.4	4.90	0.52
R9407	2229	22	7112	197	759	96	1365	334	0.4821	0.0179	N.D.	N.D.	4.09	0.57
R9408	1676	27	10074	321	1068	132	1951	440	0.3383	0.0126	372.7	117.8	4.64	0.59
R9409	2142	24	27607	757	1420	254	1659	430	0.3759	0.0145	N.D.	N.D.	7.01	0.74
R9410	1499	17	12539	348	448	107	1558	318	0.2899	0.0111	172.0	97.4	4.30	0.51
R9411	2202	24	5428	161	596	106	1388	268	0.3936	0.0149	240.4	105.0	4.07	0.53
R9412	3226	35	4553	136	543	56	1685	335	0.5759	0.0217	N.D.	N.D.	5.44	0.67
R9501	4841	54	7226	217	1027	87	2456	474	0.8586	0.0322	281.2	168.4	10.36	1.15
R9502	4949	54	3594	122	1382	163	1935	418	1.1422	0.0429	N.D.	N.D.	8.95	1.07
R9503	5042	57	30484	857	1769	281	5201	1004	1.0484	0.0398	N.D.	N.D.	9.94	1.42
R9504	14604	161	21849	659	2327	218	4394	1199	3.3901	0.1275	517.7	504.5	27.13	3.28
R9505	3229	36	29024	806	2565	291	3739	753	0.6837	0.0261	N.D.	N.D.	7.81	1.03
R9506	1487	18	29262	800	920	211	1507	426	0.2643	0.0103	N.D.	N.D.	4.18	0.63
R9507	1993	21	4704	145	659	57	1729	348	0.3164	0.0121	175.9	104.5	6.40	0.66
R9508	2415	36	1498	89	540	96	2839	506	0.4803	0.0182	N.D.	N.D.	6.42	0.62
R9509	1280	20	6222	341	906	82	763	251	0.2597	0.0098	117.6	91.8	3.54	0.43
R9510	1799	27	4910	269	549	58	1487	332	0.3935	0.0147	225.5	100.8	3.40	0.44

N.D.: Not detected

Sample	Cr	Error Cr	Mn	Error Mn	Fe	Error Fe	Co	Error Co	Br	Error Br	Rb	Error Rb	Sb	Error Sb
	(μg/m2/d)	(μg/m2/d)	(μg/m2/d)	(μg/m2/d)	(μg/m2/d)	(μg/m2/d)	(μg/m2/d)	(μg/m2/d)	(μg/m2/d)	(μg/m2/d)	(μg/m2/d)	(μg/m2/d)	(μg/m2/d)	(μg/m2/d)
Q9309	52.93	3.14	30.85	2.88	2023	53	2.59	0.28	49.05	0.26	1.95	0.32	1.611	0.036
Q9310	27.34	1.63	23.98	3.32	1297	36	0.77	0.09	69.48	0.36	1.80	0.33	1.272	0.032
Q9311	18.98	1.14	30.35	5.55	1618	46	0.80	0.09	112.58	0.64	2.12	0.39	0.799	0.031
Q9312	22.06	1.31	27.50	1.48	1326	35	0.65	0.07	17.58	0.20	2.04	0.26	0.864	0.022
Q9401	42.61	2.53	46.19	3.18	2214	60	1.34	0.15	43.25	0.56	3.37	0.53	1.436	0.040
Q9402	37.90	2.32	55.37	2.98	2984	62	2.03	0.22	27.14	0.30	3.94	0.64	1.001	0.030
Q9403	46.61	3.01	431.60	19.16	16029	337	6.86	0.75	105.88	1.77	17.78	3.53	2.931	0.140
Q9404	38.35	2.42	218.60	10.95	9694	205	4.34	0.47	55.27	1.21	13.83	2.32	1.183	0.075
Q9405	40.34	2.49	118.80	7.44	4903	107	2.18	0.24	68.48	0.58	10.56	1.38	2.607	0.078
Q9406	25.63	1.57	32.26	2.56	1540	34	0.83	0.09	35.40	0.28	2.62	0.42	1.212	0.032
Q9407	20.64	1.27	33.69	2.25	1424	31	0.76	0.08	30.32	0.26	1.35	0.32	0.726	0.023
Q9408	19.17	1.18	51.59	3.71	1818	39	0.92	0.10	38.10	0.33	2.24	0.37	0.730	0.023
Q9409	34.44	2.06	42.72	4.89	1845	48	1.30	0.15	101.89	1.23	2.11	0.53	1.206	0.053
Q9410	21.06	1.26	27.35	2.51	1368	34	0.58	0.07	43.98	0.51	0.66	0.27	0.959	0.037
Q9411	13.19	0.79	23.13	1.48	1053	26	0.48	0.05	20.01	0.37	N.D.	N.D.	1.049	0.033
Q9412	9.90	0.60	25.94	1.67	1174	29	0.58	0.06	19.62	0.48	1.60	0.28	0.859	0.032
Q9501	40.53	2.41	37.12	2.26	2008	46	1.53	0.17	21.80	0.26	3.52	0.43	1.033	0.038
Q9502	23.25	1.39	55.94	2.68	2289	52	1.06	0.12	19.34	0.25	4.20	0.54	1.115	0.043
Q9503	25.29	1.55	76.98	6.99	3812	94	3.65	0.42	95.79	1.33	7.74	1.08	2.365	0.089
Q9504	22.68	1.41	134.24	7.58	5294	128	3.03	0.35	62.61	1.37	7.76	1.23	1.590	0.085
Q9505	32.26	1.95	81.00	6.70	2845	71	1.78	0.20	111.68	0.94	5.64	0.77	1.940	0.072
Q9506	23.96	1.45	31.49	5.06	1545	41	1.27	0.15	103.51	0.88	2.58	0.42	2.106	0.064
Q9507	15.56	0.94	26.54	1.53	1096	28	0.82	0.09	18.44	0.22	2.12	0.32	2.083	0.050
Q9508	20.83	1.25	36.70	2.30	2591	57	1.09	0.12	21.29	0.30	2.97	0.44	1.822	0.048
Q9509	17.24	1.09	30.80	2.93	2227	49	0.95	0.11	50.46	0.35	1.74	0.27	1.237	0.037
Q9510	15.08	0.95	25.76	2.34	1817	40	0.86	0.10	31.05	0.23	1.72	0.26	0.793	0.027
P9309	18.00	1.07	30.79	2.57	1777	47	0.74	0.08	42.90	0.22	2.46	0.30	1.598	0.034
P9310	16.70	1.00	31.08	3.54	1421	39	0.67	0.07	71.35	0.36	1.87	0.31	1.576	0.039
P9311	9.80	0.60	25.85	5.81	1732	48	0.79	0.09	105.50	0.61	1.95	0.37	0.881	0.032
P9312	16.71	1.00	37.17	2.03	2721	70	0.84	0.09	18.02	0.22	2.24	0.34	1.052	0.028
P9401	22.31	1.34	52.53	3.34	4317	112	1.35	0.15	39.06	0.51	4.33	0.59	1.463	0.042
P9402	22.34	1.38	64.71	3.73	4729	97	2.33	0.25	29.43	0.36	5.51	0.92	1.408	0.044
P9403	24.88	1.53	37.30	2.46	3619	73	1.31	0.14	30.71	0.36	2.31	0.56	2.092	0.043
P9404	35.33	2.17	79.57	4.39	3870	83	1.58	0.18	29.47	0.52	4.37	0.87	0.933	0.041
P9405	9.92	0.63	69.38	4.65	1202	32	1.06	0.12	58.28	0.44	4.21	0.72	1.139	0.041
P9406	14.84	0.92	38.37	2.69	1851	40	0.90	0.10	33.37	0.26	2.99	0.47	1.315	0.035
P9407	50.50	3.08	41.24	2.35	2071	44	1.00	0.11	28.48	0.24	0.97	0.33	0.797	0.024
P9408	26.86	1.65	37.50	3.05	2520	53	0.97	0.11	37.97	0.34	3.22	0.52	1.320	0.034
P9409	20.05	1.21	32.81	3.92	2086	52	0.85	0.10	85.19	1.02	2.37	0.47	1.159	0.050
P9410	14.80	0.89	32.06	2.62	1602	40	0.66	0.07	41.13	0.50	1.65	0.37	0.906	0.039
P9411	12.11	0.73	26.14	1.49	1399	33	0.48	0.05	18.83	0.34	0.82	0.27	1.085	0.035
P9412	12.49	0.76	50.04	2.77	1688	46	0.73	0.08	27.54	0.66	3.23	0.52	1.076	0.043
P9501	18.90	1.14	63.62	3.49	2880	66	3.11	0.34	27.04	0.32	3.55	0.53	1.246	0.050
P9502	27.32	1.65	70.37	3.84	3040	73	1.34	0.15	29.48	0.38	4.94	0.68	1.552	0.064
P9503	36.96	2.27	129.23	10.28	4964	127	3.85	0.44	112.88	1.67	9.74	1.42	12.078	0.265
P9504	31.38	2.00	262.40	13.68	9582	233	4.41	0.50	79.83	1.93	16.44	2.56	2.844	0.151
P9505	33.06	2.00	146.02	8.35	3946	93	1.88	0.22	95.90	0.89	7.23	0.86	1.852	0.076
P9506	11.12	0.68	35.44	4.06	1042	29	0.83	0.10	76.77	0.66	2.01	0.35	1.726	0.050
P9507	20.07	1.21	36.62	2.18	1323	35	0.83	0.09	22.48	0.27	1.66	0.39	2.439	0.064
P9508	15.65	0.95	43.53	2.80	1736	42	0.92	0.11	22.76	0.30	1.84	0.41	1.595	0.047
P9509	15.09	0.95	42.31	3.11	2043	45	1.14	0.13	42.94	0.30	1.47	0.25	1.560	0.040
P9510	12.14	0.77	30.09	2.45	1668	38	0.79	0.09	28.19	0.22	1.63	0.27	0.751	0.027
P9511			51.97	3.32										
R9309	39.77	2.36	31.22	2.94	1530	41	1.58	0.17	48.91	0.26	1.17	0.24	1.428	0.032
R9310	21.23	1.27	26.91	3.15	1360	37	1.01	0.11	68.72	0.37	1.37	0.31	1.354	0.034
R9311	16.63	1.00	40.11	5.98	1421	41	1.01	0.11	119.17	0.75	1.07	0.36	1.013	0.037
R9312	34.07	2.02	32.17	1.89	2486	65	1.13	0.12	18.34	0.27	2.08	0.38	0.920	0.027
R9401	49.63	2.95	66.40	4.03	3376	90	2.40	0.26	44.88	0.70	4.45	0.73	1.676	0.049
R9402	44.85	2.75	67.40	3.57	4197	87	2.72	0.30	26.20	0.38	4.75	0.87	1.201	0.040
R9403	52.14	3.49	590.61	26.39	24295	509	10.16	1.11	135.80	2.53	28.72	5.94	3.652	0.205
R9404	76.44	4.75	353.97	15.71	15232	319	6.71	0.73	55.12	1.67	25.71	3.72	1.486	0.103
R9405	34.80	2.16	91.98	6.31	4113	91	1.89	0.21	57.95	0.50	9.99	1.25	1.680	0.062
R9406	17.97	1.10	32.39	2.00	1678	36	0.83	0.09	27.02	0.23	2.86	0.42	1.219	0.030
R9407	33.57	2.05	44.09	2.68	2298	49	1.21	0.13	32.93	0.29	2.57	0.51	0.748	0.026
R9408	28.00	1.72	42.04	3.28	1945	42	1.04	0.11	41.31	0.38	1.75	0.44	0.844	0.028
R9409	30.18	1.81	53.09	4.86	3328	78	0.98	0.11	97.95	1.28	N.D.	N.D.	1.320	0.057
R9410	17.62	1.06	44.41	2.88	2107	49	0.70	0.08	41.43	0.51	1.91	0.35	1.092	0.041
R9411	14.42	0.87	39.93	2.28	2597	59	0.72	0.08	21.49	0.50	1.70	0.38	1.282	0.045
R9412	10.39	0.64	48.01	2.46	2451	57	0.87	0.10	21.93	0.68	3.38	0.53	0.910	0.039
R9501	26.10	1.56	67.79	3.55	3545	74	1.75	0.19	24.08	0.26	3.79	0.42	1.227	0.037
R9502	24.73	1.49	71.82	3.50	3190	73	1.36	0.15	22.38	0.31	4.75	0.67	1.258	0.054
R9503	25.33	1.55	86.69	7.17	3510	90	2.66	0.30	100.61	1.51	10.85	1.41	2.594	0.096
R9504	20.52	1.38	203.26	10.86	8094	193	3.79	0.43	66.66	2.07	12.23	1.88	1.689	0.108
R9505	21.26	1.29	70.54	6.04	3129	75	1.54	0.18	89.09	0.78	4.39	0.65	1.547	0.063
R9506	15.01	0.92	28.06	4.42	1177	33	0.79	0.09	85.46	0.77	1.94	0.41	2.103	0.063
R9507	18.15	1.09	46.37	2.55	1826	43	0.90	0.10	21.44	0.27	2.41	0.38	2.265	0.056
R9508	19.68	1.19	41.65	2.69	2170	51	0.97	0.11	18.85	0.33	3.80	0.52	1.747	0.052
R9509	12.39	0.79	21.65	2.50	1498	37	0.63	0.07	36.70	0.28	2.04	0.30	1.077	0.037
R9510	12.59	0.80	34.05	2.75	1925	44	0.78	0.09	24.92	0.21	2.26	0.35	0.697	0.027
N.D.: Not detected														

Sample	Cs	Error Cs	La	Error La	Ce	Error Ce	Eu	Error Eu	Hf	Error Hf	Ta	Error Ta	Th	Error Th
	(μg/m2/d)	(μg/m2/d)	(μg/m2/d)	(μg/m2/d)	(μg/m2/d)	(μg/m2/d)	(μg/m2/d)	(μg/m2/d)	(μg/m2/d)	(μg/m2/d)	(μg/m2/d)	(μg/m2/d)	(μg/m2/d)	(μg/m2/d)
Q9309	0.088	0.012	0.537	0.049	3.22	0.18	0.0230	0.0024	0.0667	0.0112	0.0328	0.0074	0.196	0.029
Q9310	0.100	0.011	0.478	0.046	2.20	0.13	0.0238	0.0022	0.0720	0.0121	0.0342	0.0070	0.138	0.027
Q9311	0.109	0.012	0.554	0.066	2.12	0.16	0.0251	0.0026	0.0821	0.0147	0.0357	0.0082	0.270	0.041
Q9312	0.111	0.009	0.745	0.056	2.80	0.14	0.0235	0.0018	0.1093	0.0149	0.0314	0.0058	0.246	0.025
Q9401	0.270	0.022	1.000	0.089	4.84	0.25	0.0453	0.0035	0.1981	0.0283	0.0619	0.0115	0.481	0.052
Q9402	0.212	0.016	1.214	0.056	1.02	0.08	0.0468	0.0032	0.2118	0.0273	0.0791	0.0161	0.467	0.048
Q9403	1.608	0.116	10.281	0.462	12.65	0.86	0.4966	0.0272	1.1954	0.1619	0.3256	0.0707	4.682	0.362
Q9404	0.958	0.062	5.238	0.266	7.12	0.49	0.2436	0.0144	0.7343	0.1000	0.1219	0.0310	2.299	0.213
Q9405	0.588	0.040	2.542	0.130	3.99	0.28	0.0788	0.0073	0.3852	0.0560	0.0752	0.0198	0.755	0.088
Q9406	0.162	0.014	0.634	0.037	0.78	0.07	0.0213	0.0023	0.0647	0.0114	0.0214	0.0062	0.198	0.032
Q9407	0.107	0.009	0.504	0.032	0.60	0.05	0.0161	0.0017	0.0879	0.0130	0.0257	0.0063	0.130	0.027
Q9408	0.112	0.010	0.597	0.035	0.92	0.07	0.0201	0.0019	0.1014	0.0144	0.0394	0.0086	0.240	0.031
Q9409	0.123	0.015	0.702	0.068	2.43	0.18	0.0208	0.0030	0.1051	0.0207	0.0414	0.0110	N.D.	N.D.
Q9410	0.067	0.009	0.445	0.036	1.57	0.11	0.0164	0.0018	0.0288	0.0112	N.D.	N.D.	0.301	0.044
Q9411	0.070	0.008	0.532	0.040	1.07	0.08	0.0159	0.0016	0.0610	0.0117	0.0255	0.0060	0.119	0.028
Q9412	0.129	0.012	0.565	0.051	1.37	0.10	0.0241	0.0019	0.0935	0.0162	0.0269	0.0061	0.258	0.042
Q9501	0.165	0.017	1.070	0.055	3.44	0.22	0.0394	0.0030	0.1104	0.0182	0.0449	0.0098	0.307	0.040
Q9502	0.234	0.021	1.548	0.075	3.36	0.22	0.0540	0.0035	0.2107	0.0302	0.0649	0.0119	0.524	0.059
Q9503	0.508	0.034	1.941	0.148	5.64	0.36	0.0692	0.0071	0.2594	0.0452	0.1283	0.0236	0.781	0.115
Q9504	0.595	0.044	2.776	0.214	6.97	0.41	0.1232	0.0102	0.3304	0.0563	0.0675	0.0213	1.529	0.178
Q9505	0.438	0.030	1.773	0.123	4.13	0.27	0.0492	0.0056	0.1930	0.0308	N.D.	N.D.	0.289	0.061
Q9506	0.223	0.020	0.783	0.075	2.45	0.17	0.0318	0.0035	0.2017	0.0288	0.0532	0.0116	0.382	0.054
Q9507	0.126	0.010	0.516	0.032	0.63	0.07	0.0155	0.0020	0.0785	0.0134	0.0500	0.0087	N.D.	N.D.
Q9508	0.146	0.013	0.736	0.047	2.41	0.15	0.0270	0.0027	0.1051	0.0196	0.0416	0.0085	0.098	0.034
Q9509	0.125	0.012	0.438	0.039	1.88	0.10	0.0177	0.0018	0.0625	0.0134	0.0318	0.0067	N.D.	N.D.
Q9510	0.105	0.010	0.531	0.037	1.75	0.09	0.0209	0.0018	0.1251	0.0176	0.0173	0.0044	0.184	0.029
P9309	0.102	0.011	0.450	0.042	0.82	0.09	0.0167	0.0019	0.0587	0.0096	0.0400	0.0076	0.135	0.026
P9310	0.136	0.012	0.741	0.066	2.81	0.16	0.0297	0.0028	0.1156	0.0168	0.0611	0.0110	0.237	0.032
P9311	0.097	0.011	0.404	0.066	2.31	0.16	0.0305	0.0029	0.1091	0.0168	0.0375	0.0082	N.D.	N.D.
P9312	0.121	0.011	0.612	0.049	3.30	0.17	0.0313	0.0024	0.1332	0.0199	0.0607	0.0105	0.296	0.035
P9401	0.284	0.023	1.347	0.109	5.89	0.30	0.0443	0.0037	0.1333	0.0220	0.0566	0.0116	0.523	0.059
P9402	0.279	0.021	1.797	0.081	1.80	0.14	0.0632	0.0045	0.2638	0.0351	0.1455	0.0284	0.730	0.070
P9403	0.240	0.017	0.966	0.050	1.05	0.08	0.0338	0.0027	0.5380	0.0633	0.0852	0.0170	0.429	0.046
P9404	0.287	0.021	1.410	0.085	1.97	0.15	0.0679	0.0047	0.2795	0.0373	0.0416	0.0132	0.661	0.076
P9405	0.124	0.014	0.666	0.061	0.41	0.07	0.0269	0.0032	0.1063	0.0177	0.0172	0.0072	0.225	0.040
P9406	0.211	0.017	0.948	0.045	1.54	0.11	0.0332	0.0029	0.1341	0.0182	0.0531	0.0114	0.411	0.039
P9407	0.134	0.011	0.717	0.039	1.45	0.10	0.0240	0.0021	0.0925	0.0137	0.0321	0.0074	0.164	0.025
P9408	0.125	0.011	0.840	0.042	1.16	0.09	0.0295	0.0024	0.1616	0.0211	0.0433	0.0095	0.134	0.029
P9409	0.125	0.015	0.737	0.065	1.26	0.13	0.0225	0.0028	0.0762	0.0188	0.0337	0.0093	N.D.	N.D.
P9410	0.106	0.013	0.509	0.039	1.66	0.12	0.0221	0.0022	0.0567	0.0136	0.0304	0.0076	N.D.	N.D.
P9411	0.076	0.008	0.528	0.038	1.39	0.10	0.0179	0.0016	0.0899	0.0145	0.0361	0.0071	N.D.	N.D.
P9412	0.178	0.016	0.862	0.072	2.65	0.18	0.0453	0.0031	0.1323	0.0226	0.0689	0.0127	N.D.	N.D.
P9501	0.286	0.027	1.348	0.076	4.00	0.26	0.0558	0.0041	0.1831	0.0290	0.1168	0.0194	0.454	0.059
P9502	0.340	0.031	2.061	0.103	4.97	0.33	0.0851	0.0058	0.2449	0.0384	0.1086	0.0199	0.702	0.085
P9503	0.616	0.045	3.576	0.244	6.84	0.47	0.0852	0.0105	0.3253	0.0592	0.3234	0.0526	1.139	0.179
P9504	1.054	0.079	12.979	0.738	23.58	1.35	0.2640	0.0218	0.8301	0.1247	0.2250	0.0482	2.557	0.303
P9505	0.545	0.036	1.647	0.120	3.91	0.27	0.0635	0.0062	0.1689	0.0311	0.0936	0.0183	0.343	0.059
P9506	0.127	0.012	0.725	0.067	1.34	0.11	0.0180	0.0026	0.1355	0.0209	0.0372	0.0082	0.140	0.035
P9507	0.119	0.012	0.610	0.040	0.94	0.10	0.0226	0.0029	0.0993	0.0177	0.0397	0.0096	0.167	0.037
P9508	0.150	0.013	0.821	0.051	1.37	0.11	0.0358	0.0033	0.1125	0.0198	0.0408	0.0085	0.325	0.048
P9509	0.115	0.011	0.610	0.042	2.08	0.11	0.0200	0.0019	0.1095	0.0167	0.0534	0.0087	0.128	0.031
P9510	0.124	0.011	0.685	0.042	2.07	0.11	0.0264	0.0021	0.0982	0.0158	0.0327	0.0061	0.263	0.040
P9511														
R9309	0.102	0.011	0.398	0.045	2.40	0.15	0.0125	0.0018	0.0716	0.0126	0.0166	0.0049	0.107	0.023
R9310	0.119	0.011	0.567	0.052	2.42	0.14	0.0273	0.0024	0.0944	0.0142	0.0310	0.0067	0.215	0.030
R9311	0.112	0.012	0.656	0.077	2.10	0.16	0.0298	0.0030	0.1082	0.0183	0.0470	0.0104	0.161	0.038
R9312	0.163	0.014	0.969	0.075	4.04	0.20	0.0416	0.0028	0.1857	0.0240	0.0305	0.0067	0.401	0.043
R9401	0.388	0.030	1.533	0.133	7.04	0.36	0.0664	0.0049	0.2269	0.0325	0.0657	0.0132	0.651	0.073
R9402	0.353	0.024	1.814	0.084	1.98	0.15	0.0719	0.0048	0.2637	0.0346	0.0883	0.0183	0.777	0.077
R9403	2.422	0.160	14.949	0.678	21.88	1.44	0.7333	0.0397	2.8093	0.3616	0.5217	0.1167	7.507	0.586
R9404	1.489	0.101	8.914	0.463	12.03	0.81	0.3744	0.0214	1.2754	0.1710	0.2836	0.0619	2.969	0.280
R9405	0.554	0.037	2.366	0.113	3.53	0.25	0.1024	0.0074	0.2691	0.0391	0.1302	0.0285	0.897	0.085
R9406	0.200	0.014	0.780	0.037	0.97	0.07	0.0297	0.0023	0.1220	0.0166	0.0388	0.0086	0.286	0.029
R9407	0.151	0.012	0.631	0.038	1.03	0.08	0.0230	0.0024	0.1045	0.0161	0.0214	0.0063	0.174	0.030
R9408	0.128	0.011	0.581	0.040	1.17	0.08	0.0240	0.0023	0.0942	0.0145	0.0362	0.0081	0.094	0.028
R9409	0.172	0.018	1.519	0.104	4.82	0.31	0.0330	0.0034	0.2613	0.0421	0.0388	0.0109	0.267	0.059
R9410	0.080	0.010	0.510	0.039	1.93	0.13	0.0147	0.0019	0.0775	0.0152	0.0579	0.0105	N.D.	N.D.
R9411	0.120	0.013	0.770	0.062	2.12	0.15	0.0274	0.0024	0.1257	0.0210	0.0526	0.0118	0.285	0.050
R9412	0.175	0.016	1.059	0.091	2.66	0.18	0.0376	0.0028	0.1135	0.0213	0.0349	0.0088	0.267	0.053
R9501	0.276	0.024	1.504	0.071	4.79	0.29	0.0590	0.0033	0.2427	0.0320	0.0736	0.0128	0.471	0.045
R9502	0.351	0.031	2.044	0.098	4.37	0.29	0.0849	0.0052	0.2470	0.0379	0.0867	0.0161	0.672	0.076
R9503	0.548	0.037	1.829	0.156	5.77	0.36	0.0768	0.0073	0.1921	0.0392	N.D.	N.D.	0.426	0.094
R9504	0.880	0.060	5.007	0.390	12.00	0.73	0.2039	0.0160	0.4588	0.0824	0.1344	0.0315	1.734	0.238
R9505	0.343	0.025	1.390	0.110	3.80	0.25	0.0414	0.0048	0.1707	0.0291	0.1024	0.0180	0.206	0.054
R9506	0.143	0.013	0.520	0.064	1.14	0.12	0.0180	0.0028	0.0367	0.0124	0.0355	0.0092	N.D.	N.D.
R9507	0.142	0.012	0.681	0.044	1.37	0.11	0.0273	0.0028	0.1072	0.0169	0.0305	0.0081	0.228	0.039
R9508	0.180	0.014	0.798	0.055	2.31	0.15	0.0338	0.0033	0.1128	0.0194	0.0950	0.0152	0.240	0.051
R9509	0.110	0.011	0.429	0.037	1.66	0.10	0.0182	0.0020	0.1131	0.0177	0.0329	0.0065	0.158	0.035
R9510	0.133	0.012	0.723	0.042	2.19	0.11	0.0276	0.0023	0.0841	0.0160	0.0395	0.0071	0.296	0.041

N.D.: Not detected

Sample	U	Error U
	(μg/m2/d)	(μg/m2/d)
Q9309	N.D.	N.D.
Q9310	N.D.	N.D.
Q9311	N.D.	N.D.
Q9312	N.D.	N.D.
Q9401	N.D.	N.D.
Q9402	N.D.	N.D.
Q9403	2.265	0.517
Q9404	N.D.	N.D.
Q9405	N.D.	N.D.
Q9406	N.D.	N.D.
Q9407	N.D.	N.D.
Q9408	N.D.	N.D.
Q9409	N.D.	N.D.
Q9410	N.D.	N.D.
Q9411	N.D.	N.D.
Q9412	N.D.	N.D.
Q9501	N.D.	N.D.
Q9502	N.D.	N.D.
Q9503	N.D.	N.D.
Q9504	N.D.	N.D.
Q9505	N.D.	N.D.
Q9506	N.D.	N.D.
Q9507	N.D.	N.D.
Q9508	N.D.	N.D.
Q9509	N.D.	N.D.
Q9510	N.D.	N.D.
P9309	N.D.	N.D.
P9310	N.D.	N.D.
P9311	N.D.	N.D.
P9312	N.D.	N.D.
P9401	N.D.	N.D.
P9402	N.D.	N.D.
P9403	N.D.	N.D.
P9404	N.D.	N.D.
P9405	N.D.	N.D.
P9406	N.D.	N.D.
P9407	N.D.	N.D.
P9408	N.D.	N.D.
P9409	N.D.	N.D.
P9410	N.D.	N.D.
P9411	N.D.	N.D.
P9412	N.D.	N.D.
P9501	N.D.	N.D.
P9502	N.D.	N.D.
P9503	N.D.	N.D.
P9504	N.D.	N.D.
P9505	N.D.	N.D.
P9506	N.D.	N.D.
P9507	N.D.	N.D.
P9508	N.D.	N.D.
P9509	N.D.	N.D.
P9510	N.D.	N.D.
P9511		
R9309	N.D.	N.D.
R9310	N.D.	N.D.
R9311	N.D.	N.D.
R9312	N.D.	N.D.
R9401	N.D.	N.D.
R9402	N.D.	N.D.
R9403	N.D.	N.D.
R9404	N.D.	N.D.
R9405	N.D.	N.D.
R9406	N.D.	N.D.
R9407	N.D.	N.D.
R9408	N.D.	N.D.
R9409	N.D.	N.D.
R9410	N.D.	N.D.
R9411	N.D.	N.D.
R9412	N.D.	N.D.
R9501	N.D.	N.D.
R9502	N.D.	N.D.
R9503	N.D.	N.D.
R9504	N.D.	N.D.
R9505	N.D.	N.D.
R9506	N.D.	N.D.
R9507	N.D.	N.D.
R9508	N.D.	N.D.
R9509	N.D.	N.D.
R9510	N.D.	N.D.
N.D.: Not detected		

Table 10 Concentration of satble elements in deposition and soil samples at Tokai-mura

Basin

Sample	Hight	Year	Month	Sampling				Period	Weight			Na	Error Na	Mg	Error Mg
				Start Date	Start Time	End Date	End Time								
	(m)							(d)	(g)	(g/m2)	(g/m2/d)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)
Q9309	1.5	1993	9	1993.9.2	11:10	1993.9.30	10:35	27.9757	1.1212	2.2424	0.080155	91761	842	N. D.	N. D.
Q9310	1.5	1993	10	1993.9.30	10:35	1993.11.1	11:10	32.0243	1.4097	2.8194	0.088039	120200	1105	N. D.	N. D.
Q9311	1.5	1993	11	1993.11.1	11:10	1993.12.1	10:10	29.9583	1.8242	3.6484	0.121782	176116	1620	20992	12851
Q9312	1.5	1993	12	1993.12.1	10:10	1994.1.5	11:35	35.0590	0.9263	1.8526	0.052842	43051	419	N. D.	N. D.
Q9401	1.5	1994	1	1994.1.5	11:35	1994.2.1	13:35	27.0833	1.3710	2.7420	0.101243	64394	626	19114	10868
Q9402	1.5	1994	2	1994.2.1	13:35	1994.2.28	11:25	26.9097	1.2500	2.5000	0.092903	38862	379	N. D.	N. D.
Q9403	1.5	1994	3	1994.2.28	11:25	1994.4.8	14:10	39.1146	9.0574	18.1148	0.463121	23272	249	16499	12683
Q9404	1.5	1994	4	1994.4.8	14:10	1994.4.29	8:47	20.7757	2.8016	5.6032	0.269700	28958	309	N. D.	N. D.
Q9405	1.5	1994	5	1994.4.29	8:47	1994.5.31	10:15	32.0611	3.9833	7.9666	0.248482	40119	383	17022	8836
Q9406	1.5	1994	6	1994.5.31	10:15	1994.7.1	10:05	30.9931	1.3714	2.7428	0.088497	52442	500	17672	8369
Q9407	1.5	1994	7	1994.7.1	10:05	1994.8.1	10:30	31.0174	1.0291	2.0582	0.066356	61205	585	19561	9235
Q9408	1.5	1994	8	1994.8.1	10:30	1994.8.31	9:55	29.9757	1.0659	2.1318	0.071118	84778	805	N. D.	N. D.
Q9409	1.5	1994	9	1994.8.31	9:55	1994.9.30	11:10	30.0521	1.6276	3.2552	0.108319	133174	1258	N. D.	N. D.
Q9410	1.5	1994	10	1994.9.30	11:10	1994.10.31	10:25	30.9688	0.9808	1.9616	0.063341	97515	925	N. D.	N. D.
Q9411	1.5	1994	11	1994.10.31	10:25	1994.12.1	10:20	30.9965	0.6663	1.3326	0.042992	53668	513	N. D.	N. D.
Q9412	1.5	1994	12	1994.12.1	10:20	1995.1.5	10:10	34.9931	0.8101	1.6202	0.046301	51756	493	N. D.	N. D.
Q9501	1.5	1995	1	1995.1.5	10:10	1995.2.1	11:35	27.0590	0.8836	1.7672	0.065309	54989	528	13990	9116
Q9502	1.5	1995	2	1995.2.1	11:35	1995.2.28	10:50	26.9688	0.9169	1.8338	0.067997	36390	379	N. D.	N. D.
Q9503	1.5	1995	3	1995.2.28	10:50	1995.3.29	10:55	29.0035	2.7291	5.4582	0.188191	71961	725	28776	9249
Q9504	1.5	1995	4	1995.3.29	10:55	1995.5.1	10:30	32.9826	3.4674	6.9348	0.210256	44367	452	N. D.	N. D.
Q9505	1.5	1995	5	1995.5.1	10:30	1995.6.1	11:10	31.0278	2.6942	5.3884	0.173664	75640	763	12357	8412
Q9506	1.5	1995	6	1995.6.1	11:10	1995.6.30	15:15	29.1701	1.8673	3.7346	0.128028	116059	1166	25586	8798
Q9507	1.5	1995	7	1995.6.30	15:15	1995.8.1	10:50	31.8160	0.9971	1.9942	0.062679	18449	218	N. D.	N. D.
Q9508	1.5	1995	8	1995.8.1	10:50	1995.9.1	10:20	30.9792	1.0240	2.0480	0.066109	29517	337	7462	5886
Q9509	1.5	1995	9	1995.9.1	10:20	1995.10.3	11:35	32.0521	1.2120	2.4240	0.075627	75893	694	N. D.	N. D.
Q9510	1.5	1995	10	1995.10.3	11:35	1995.11.1	9:55	28.9306	0.8644	1.7288	0.059757	79413	727	13541	6659
P9309	4	1993	9	1993.9.1	10:20	1993.9.30	9:40	28.9722	1.1306	2.2612	0.078047	80836	742	8730	8777
P9310	4	1993	10	1993.9.30	9:40	1993.11.1	10:20	32.0278	1.6040	3.2080	0.100163	92936	856	N. D.	N. D.
P9311	4	1993	11	1993.11.1	10:20	1993.12.1	9:30	29.9653	1.8821	3.7642	0.125619	191643	1759	24055	13693
P9312	4	1993	12	1993.12.1	9:30	1994.1.5	10:45	35.0521	1.2742	2.5484	0.072703	30651	304	14999	8933
P9401	4	1994	1	1994.1.5	10:45	1994.2.1	12:50	27.0868	1.4494	2.8988	0.107019	51654	506	N. D.	N. D.
P9402	4	1994	2	1994.2.1	12:50	1994.2.28	10:15	26.8924	1.8083	3.6166	0.134484	31306	316	N. D.	N. D.
P9403	4	1994	3	1994.2.28	10:15	1994.3.18	9:20	17.9618	0.7364	1.4728	0.081996	58018	568	N. D.	N. D.
P9404	4	1994	4	1994.4.18	11:25	1994.4.29	8:16	10.8688	0.6917	1.3834	0.127282	42157	431	27996	11888
P9405	4	1994	5	1994.4.29	8:16	1994.5.31	9:40	32.0583	2.3148	4.6296	0.144412	53125	504	13561	6400
P9406	4	1994	6	1994.5.31	9:40	1994.7.1	9:25	30.9896	1.4411	2.8822	0.093005	42313	406	N. D.	N. D.
P9407	4	1994	7	1994.7.1	9:25	1994.8.1	9:55	31.0208	1.0796	2.1592	0.069605	52844	507	N. D.	N. D.
P9408	4	1994	8	1994.8.1	9:55	1994.8.31	9:15	29.9722	1.2206	2.4412	0.081449	65627	627	23797	8211
P9409	4	1994	9	1994.8.31	9:15	1994.9.30	10:10	30.0382	1.5882	3.1764	0.105745	112055	1060	N. D.	N. D.
P9410	4	1994	10	1994.9.30	10:10	1994.10.31	9:55	30.9896	1.1095	2.2190	0.071605	76644	729	N. D.	N. D.
P9411	4	1994	11	1994.10.31	9:50	1994.12.1	9:45	30.9965	0.6913	1.3826	0.044605	46813	446	29360	8666
P9412	4	1994	12	1994.12.1	9:45	1995.1.5	9:25	34.9861	1.2772	2.5544	0.073012	45493	434	N. D.	N. D.
P9501	4	1995	1	1995.1.5	9:25	1995.2.1	12:05	27.1111	1.2704	2.5408	0.093718	52734	506	20026	9095
P9502	4	1995	2	1995.2.1	12:05	1995.2.28	10:30	26.9340	1.6205	3.2410	0.120331	38210	399	N. D.	N. D.
P9503	4	1995	3	1995.2.28	10:30	1995.3.29	10:15	28.9896	4.0365	8.0730	0.278479	69203	697	N. D.	N. D.
P9504	4	1995	4	1995.3.29	10:15	1995.5.1	9:38	32.9743	6.4725	12.9450	0.392578	27574	315	N. D.	N. D.
P9505	4	1995	5	1995.5.1	9:38	1995.6.1	10:05	31.0188	2.8816	5.7632	0.185797	76191	768	N. D.	N. D.
P9506	4	1995	6	1995.6.1	10:05	1995.6.30	14:30	29.1840	1.3426	2.6852	0.092009	138603	1390	14585	8255
P9507	4	1995	7	1995.6.30	14:30	1995.8.1	10:20	31.8264	1.5165	3.0330	0.095298	13419	166	N. D.	N. D.
P9508	4	1995	8	1995.8.1	10:20	1995.9.1	9:45	30.9757	1.1664	2.3328	0.075311	27446	313	N. D.	N. D.
P9509	4	1995	9	1995.9.1	9:45	1995.10.3	10:40	32.0382	1.1171	2.2342	0.069736	70341	643	N. D.	N. D.
P9510	4	1995	10	1995.10.3	10:40	1995.11.1	9:10	28.9375	0.9341	1.8682	0.064560	65868	603	N. D.	N. D.
P9511	11	1995	11	1995.11.1	9:10	1995.12.1	9:40	30.0208	1.2365	2.4730	0.082376			N. D.	N. D.
R9309	10	1993	9	1993.9.2	11:05	1993.9.30	11:20	28.0104	1.1441	2.2882	0.081691	106545	977	N. D.	N. D.
R9310	10	1993	10	1993.9.30	11:20	1993.11.1	11:50	32.0208	1.4543	2.9086	0.090835	109934	1013	17139	11167
R9311	10	1993	11	1993.11.1	11:50	1993.12.1	10:45	29.9549	1.9678	3.9356	0.131384	170065	1567	N. D.	N. D.
R9312	10	1993	12	1993.12.1	10:45	1994.1.5	11:10	35.0174	1.2536	2.5072	0.071599	32945	331	N. D.	N. D.
R9401	10	1994	1	1994.1.5	11:10	1994.2.1	10:50	26.9861	1.6869	3.3738	0.125020	51073	509	N. D.	N. D.
R9402	10	1994	2	1994.2.1	10:50	1994.2.28	11:00	27.0069	1.5961	3.1922	0.118199	29235	301	N. D.	N. D.
R9403	10	1994	3	1994.2.28	11:00	1994.4.8	14:50	39.1597	12.8565	25.7130	0.656619	17082	192	26022	13110
R9404	10	1994	4	1994.4.8	14:50	1994.4.29	9:13	20.7660	3.6029	7.2058	0.347000	19524	224	N. D.	N. D.
R9405	10	1994	5	1994.4.29	9:13	1994.5.31	10:50	32.0674	3.6029	7.2058	0.224708	38628	371	N. D.	N. D.
R9406	10	1994	6	1994.5.31	10:50	1994.7.1	10:40	30.9931	1.1213	2.2426	0.072358	57971	552	19354	9529
R9407	10	1994	7	1994.7.1	10:40	1994.8.1	10:55	31.0104	1.2380	2.4760	0.079844	52657	508	N. D.	N. D.
R9408	10	1994	8	1994.8.1	10:55	1994.8.31	10:40	29.9896	1.1984	2.3968	0.079921	76900	736	18250	7191
R9409	10	1994	9	1994.8.31	10:40	1994.9.30	12:00	30.0556	1.7212	3.4424	0.114535	116785	1106	N. D.	N. D.
R9410	10	1994	10	1994.9.30	12:00	1994.10.31	10:50	30.9514	0.9967	1.9934	0.064404	91440	868	13847	8417
R9411	10	1994	11	1994.10.31	10:50	1994.12.1	10:40	30.9931	0.9995	1.9990	0.064498	37861	396	N. D.	N. D.
R9412	10	1994	12	1994.12.1	10:40	1995.1.5	11:25	35.0313	1.0836	2.1672	0.061865	42557	406	N. D.	N. D.
R9501	10	1995	1	1995.1.5	11:25	1995.2.1	10:50	26.9757	1.2153	2.4306	0.090103	41088	391	N. D.	N. D.
R9502	10	1995	2	1995.2.1	10:50	1995.2.28	11:10	27.0139	1.3316	2.6632	0.098586	28194	299	15526	9031
R9503	10	1995	3	1995.2.28	11:10	1995.3.29	11:35	29.0174	2.9758	5.9516	0.205105	77915	788	N. D.	N. D.
R9504	10	1995	4	1995.3.29	11:35	1995.5.1	11:10	32.9826	4.9228	9.8456	0.298509	37485	382	N. D.	N. D.
R9505	10	1995	5	1995.5.1	11:10	1995.6.1	12:10	31.0417	2.5208	5.0416	0.162414	85920	868	N. D.	N. D.
R9506	10	1995	6	1995.6.1	12:10	1995.6.30	16:15	29.1701	1.5887	3.1774	0.108926	127800	1284	N. D.	N. D.
R9507	10	1995	7	1995.6.30	16:15	1995.8.1	11:25	31.7986	1.1858	2.3716	0.074582	36021	367	N. D.	N. D.
R9508	10	1995	8	1995.8.1	11:25	1995.9.1	12:00	31.0243	1.2748	2.5496	0.082181	24080	277	N. D.	N. D.
R9509	10	1995	9	1995.9.1	12:00	1995.10.3	12:40	32.0278	1.4676	2.9352	0.091645	46566	429	N. D.	N. D.
R9510	10	1995	10	1995.10.3	12:40	1995.11.1	10:20	28.9028	1.0020	2.0040	0.069336	55083	506	N. D.	N. D.

Soil

Sample	Place(at Tokai-mura)	Sampling Date	Na	Error Na	Mg	Error Mg
			(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)
200mesh pass (<200mesh)						
Soil 01	Shirakata	1993.2.5	8359	92	N. D.	N. D.
Soil 02	Oka	1993.2.5	7232	83	19066	8799
Soil 03	Yashiki	1993.2.5	6664	78	N. D.	N. D.
Soil 04	Terunuma	1993.2.5	7500	87	18057	8571
Soil 05	Oshinobe	1991.4.24	8580	101	12174	8553

N.D.: Not detected

Basin														
Sample	Al	Error Al	Cl	Error Cl	K	Error K	Ca	Error Ca	Sc	Error Sc	Ti	Error Ti	V	Error V
	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)
Q9309	15439	182	125499	3552	10550	924	19686	5890	3.34	0.12	N. D.	N. D.	43.41	5.27
Q9310	17043	218	196573	5452	9987	1233	N. D.	N. D.	3.29	0.12	N. D.	N. D.	31.84	6.20
Q9311	14028	190	286076	7841	9634	1860	27966	22663	2.69	0.10	N. D.	N. D.	26.12	6.23
Q9312	31384	339	37292	11627	13012	1546	15956	4468	6.75	0.25	N. D.	N. D.	63.11	6.51
Q9401	32045	345	78551	24472	14140	2158	20658	5787	6.83	0.25	2998	1357	60.71	6.66
Q9402	44315	460	48800	15209	13751	1350	17790	5248	8.36	0.31	4180	1555	91.75	8.05
Q9403	73362	757	23550	7350	9272	1250	12913	4232	15.56	0.57	N. D.	N. D.	116.31	10.47
Q9404	51378	652	30479	9507	10245	1550	24578	5694	14.19	0.52	2085	1554	116.29	9.94
Q9405	24602	231	59160	1965	10208	789	17419	3578	5.54	0.21	N. D.	N. D.	44.52	6.32
Q9406	19727	193	80468	2231	7770	877	17451	3204	3.94	0.15	N. D.	N. D.	43.92	5.85
Q9407	21160	198	98994	2701	12726	1485	16640	3611	4.06	0.15	N. D.	N. D.	45.68	6.01
Q9408	26770	537	130712	4127	9938	1478	15224	3781	4.80	0.18	N. D.	N. D.	65.79	10.70
Q9409	17150	201	297996	8080	7315	2367	22985	4151	3.05	0.12	N. D.	N. D.	50.36	6.67
Q9410	19072	218	201019	5544	11301	1912	25343	4356	3.71	0.14	N. D.	N. D.	54.07	6.75
Q9411	28434	325	97780	2838	10696	1190	18135	3894	5.33	0.20	N. D.	N. D.	56.54	7.71
Q9412	40158	433	105496	3032	11712	1209	19053	3670	7.34	0.28	2715	1664	71.54	9.13
Q9501	41272	442	55121	2498	13324	1288	20831	3965	8.67	0.33	N. D.	N. D.	93.53	10.36
Q9502	54474	565	37454	1253	12112	1600	30504	4670	11.05	0.42	N. D.	N. D.	102.77	11.46
Q9503	26429	301	177224	4918	9529	1161	27359	4698	4.83	0.18	N. D.	N. D.	50.73	7.33
Q9504	42881	473	84647	2485	9321	849	13740	3021	9.82	0.37	3734	1735	80.08	9.94
Q9505	*25005*	*277*	*183056*	*5056*	*13225*	*1380*	*17579*	*3204*	*4.87*	*0.19*	*N. D.*	*N. D.*	*76.41*	*8.44*
Q9506	16348	197	274715	7471	13862	1890	12977	3802	2.86	0.11	N. D.	N. D.	52.95	6.77
Q9507	16087	183	27018	949	9257	1112	17725	3290	3.35	0.13	1575	1044	67.26	6.89
Q9508	26002	390	18129	1076	11823	1454	15668	3850	5.69	0.22	N. D.	N. D.	64.93	6.75
Q9509	17303	268	122806	6639	11215	1216	26307	4618	3.50	0.13	N. D.	N. D.	49.24	5.75
Q9510	23677	360	119417	6462	9210	1200	17521	4010	4.81	0.18	N. D.	N. D.	54.30	6.44
P9309	17797	297	106978	3073	9844	780	11518	7963	3.30	0.12	N. D.	N. D.	52.11	7.75
P9310	17417	203	150111	4187	9748	981	17638	9820	3.64	0.13	N. D.	N. D.	45.83	5.60
P9311	13193	192	285425	7802	10867	1701	N. D.	N. D.	2.69	0.10	N. D.	N. D.	23.02	6.50
P9312	26656	312	39527	12321	15032	1315	23676	3905	6.02	0.22	N. D.	N. D.	52.67	6.15
P9401	35255	411	66729	20790	12875	2097	15124	4701	7.30	0.27	1869	1334	58.93	7.44
P9402	34070	401	37168	11587	11854	1358	20055	4473	7.43	0.27	N. D.	N. D.	67.03	7.30
P9403	34238	378	60478	18845	15696	1976	22461	4817	7.93	0.29	4970	1547	75.86	7.38
P9404	39960	428	57829	18020	12533	1797	17035	5210	8.25	0.30	2593	1408	54.46	7.21
P9405	7205	84	92889	2522	13494	1100	30104	3743	2.60	0.10	N. D.	N. D.	14.38	3.20
P9406	23892	224	73871	2046	7868	825	17509	2656	4.67	0.17	N. D.	N. D.	60.22	6.85
P9407	23373	229	79707	2201	9697	1107	26759	3690	5.10	0.19	N. D.	N. D.	53.52	6.59
P9408	23358	355	145036	4558	6954	1293	23672	4511	5.03	0.19	1997	1267	60.00	7.34
P9409	14520	181	193802	5335	12639	2273	13139	2777	3.07	0.12	N. D.	N. D.	34.02	5.60
P9410	20269	231	155028	4314	10339	1599	21484	3451	4.00	0.15	2104	1337	56.76	7.00
P9411	28962	328	72095	2141	10476	942	17997	3262	5.76	0.22	2879	1449	56.42	7.64
P9412	37756	423	94275	2710	14267	1056	20835	3395	6.86	0.26	3352	1642	75.01	9.31
P9501	45562	508	81982	2398	12981	1231	15750	3049	8.63	0.33	N. D.	N. D.	67.14	9.62
P9502	39761	432	44305	1401	12677	1999	15498	2758	9.09	0.34	2922	1604	57.49	8.43
P9503	23381	269	161218	4467	12686	1184	34734	4316	4.64	0.18	2513	1424	52.35	7.11
P9504	50501	542	54281	1664	8570	1471	14492	2707	10.50	0.40	4213	1843	92.08	10.87
P9505	25037	292	144712	4034	11503	1275	14605	2798	5.39	0.20	5073	1712	59.74	7.81
P9506	15395	178	279007	7551	13413	2212	18881	3031	2.90	0.11	3193	1434	44.05	5.98
P9507	14949	174	22935	812	6921	838	13159	2285	2.86	0.11	N. D.	N. D.	47.75	5.66
P9508	24791	381	34567	1938	11609	1545	20926	4059	5.21	0.20	N. D.	N. D.	55.98	6.47
P9509	21876	345	103153	5585	12717	1134	27184	4199	4.45	0.17	2377	1391	58.35	6.70
P9510	25536	382	95843	5195	11944	1060	20893	3633	5.30	0.20	N. D.	N. D.	44.13	6.14
P9511	35183	527	41328	2311			30935	6347			2570	1476	62.57	7.50
R9309	13650	174	154915	4358	11786	1120	27814	7529	2.63	0.10	N. D.	N. D.	47.57	5.54
R9310	19068	242	169117	4746	9316	1262	18643	8181	3.86	0.14	1410	1154	40.21	6.45
R9311	*15295*	*207*	*296993*	*8153*	*10455*	*2359*	*19555*	*10447*	*2.89*	*0.11*	*N. D.*	*N. D.*	*29.04*	*6.57*
R9312	36272	388	37826	11794	13223	1445	21342	6024	7.81	0.29	N. D.	N. D.	72.41	7.08
R9401	39698	424	68402	21313	12394	1999	22840	8349	7.85	0.29	3122	1447	66.51	7.32
R9402	50705	556	33284	10382	13571	1417	25080	6347	10.01	0.37	1642	1446	86.31	8.79
R9403	75487	798	16502	5158	7064	1028	12930	4588	17.71	0.65	3417	1781	102.98	10.67
R9404	66887	712	20946	6541	11780	1443	18897	3633	16.00	0.59	2694	1636	94.53	9.89
R9405	25916	243	62430	1816	12196	923	16219	2960	5.83	0.22	1397	1023	57.28	6.86
R9406	27777	253	53444	1591	10512	1112	22219	4398	5.81	0.22	1728	1077	71.87	7.59
R9407	27738	269	88484	2457	9440	1190	16982	4154	6.00	0.22	N. D.	N. D.	50.83	7.08
R9408	*21008*	*340*	*126243*	*4016*	*13381*	*1556*	*24442*	*5509*	*4.24*	*0.16*	*4670*	*1476*	*58.17*	*7.42*
R9409	18668	213	240660	6601	12376	2211	14462	3746	3.28	0.13	N. D.	N. D.	61.15	6.46
R9410	23183	264	193889	5377	6925	1651	24098	4914	4.48	0.17	2660	1506	66.56	7.93
R9411	34259	374	84457	2500	9277	1651	21595	4178	6.12	0.23	3741	1634	63.32	8.31
R9412	51649	555	72902	2204	8690	904	26980	5358	9.22	0.35	N. D.	N. D.	87.06	10.70
R9501	52857	589	78896	2364	11209	951	26816	5174	9.37	0.35	3071	1839	113.15	12.54
R9502	50007	542	36318	1232	13962	1642	19551	4223	11.54	0.43	N. D.	N. D.	90.47	10.78
R9503	24716	280	149428	4201	8669	1378	25496	4924	5.14	0.20	N. D.	N. D.	48.71	6.96
R9504	48872	536	73121	2204	7788	728	14703	4014	11.35	0.43	1733	1688	90.80	10.98
R9505	19953	221	179338	4981	15846	1797	23102	4650	4.22	0.16	N. D.	N. D.	48.24	6.39
R9506	13499	164	265717	7266	8350	1912	13686	3868	2.40	0.09	N. D.	N. D.	37.98	5.76
R9507	26747	287	53131	1941	8843	760	23210	4668	4.25	0.16	2361	1403	85.85	8.85
R9508	29320	437	18192	1077	6562	1163	34467	6145	5.83	0.22	N. D.	N. D.	77.92	7.53
R9509	13928	216	67714	3709	9862	890	8304	2730	2.83	0.11	1280	999	38.52	4.63
R9510	25886	386	70672	3870	7896	830	21404	4777	5.66	0.21	3246	1451	48.94	6.28
Soil														
Sample	Al	Error Al	Cl	Error Cl	K	Error K	Ca	Error Ca	Sc	Error Sc	Ti	Error Ti	V	Error V
	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)
Soil 01	152164	2272	N. D.	N. D.	8493	577	17367	5562	17.76	0.66	6943	2834	194.70	19.50
Soil 02	109595	1621	210	132	7958	550	14427	4419	20.81	0.77	4977	2392	163.49	16.01
Soil 03	102915	1522	N. D.	N. D.	8991	594	14183	4129	22.14	0.82	7376	2654	150.76	15.12
Soil 04	101313	1495	N. D.	N. D.	6173	591	10928	3392	22.31	0.82	4074	2212	179.14	16.15
Soil 05	114367	1702	N. D.	N. D.	5913	593	17766	4711	24.97	0.92	7399	2758	216.26	18.97
N.D.: Not detected														

Basin														
Sample	Cr	Error Cr	Mn	Error Mn	Fe	Error Fe	Co	Error Co	Br	Error Br	Rb	Error Rb	Sb	Error Sb
	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)
Q9309	714.8	42.4	416.6	38.9	27315	718	34.97	3.84	662.4	3.5	26.39	4.31	21.76	0.48
Q9310	364.0	21.6	319.2	44.2	17262	475	10.23	1.13	924.9	4.7	23.96	4.41	16.93	0.42
Q9311	175.7	10.5	281.0	51.4	14984	422	7.45	0.83	1042.4	5.9	19.63	3.64	7.39	0.29
Q9312	496.2	29.5	618.5	33.3	29826	791	14.64	1.62	395.4	4.6	45.78	5.88	19.43	0.49
Q9401	492.2	29.2	533.5	36.7	25565	690	15.42	1.70	499.5	6.5	38.97	6.09	16.59	0.47
Q9402	463.9	28.4	677.8	36.5	36530	755	24.90	2.70	332.2	3.7	48.26	7.87	12.26	0.37
Q9403	100.6	6.5	931.9	41.4	34610	729	14.80	1.61	228.6	3.8	38.39	7.62	6.33	0.30
Q9404	142.2	9.0	810.5	38.4	35944	759	16.11	1.75	204.9	4.5	51.29	8.58	4.39	0.28
Q9405	162.3	10.0	478.1	30.0	19732	430	8.76	0.96	275.6	2.3	42.49	5.57	10.49	0.31
Q9406	295.6	18.1	372.1	29.5	17765	396	9.59	1.05	408.4	3.2	30.21	4.81	13.97	0.37
Q9407	306.2	18.8	499.8	33.3	21131	464	11.26	1.23	449.9	3.8	20.03	4.75	10.77	0.34
Q9408	269.4	16.5	627.5	45.2	25554	545	12.88	1.40	535.4	4.6	31.50	5.23	10.26	0.32
Q9409	316.3	18.9	392.3	44.9	16949	442	11.94	1.34	935.8	11.3	19.39	4.89	11.08	0.48
Q9410	330.3	19.8	428.9	39.3	21450	540	9.13	1.03	689.6	8.1	10.39	4.29	15.04	0.58
Q9411	305.6	18.3	535.9	34.2	24391	601	11.22	1.26	463.5	8.6	N. D.	N. D.	24.30	0.77
Q9412	212.3	12.9	556.2	35.9	25173	624	12.39	1.39	420.8	10.2	34.30	6.01	18.42	0.68
Q9501	619.1	36.9	567.1	34.5	30681	700	23.33	2.59	333.1	3.9	53.85	6.51	15.78	0.58
Q9502	340.2	20.4	818.4	39.1	33492	765	15.51	1.73	282.9	3.7	61.45	7.93	16.32	0.63
Q9503	135.2	8.3	411.6	37.4	20382	505	19.54	2.22	512.2	7.1	41.38	5.77	12.65	0.48
Q9504	108.0	6.7	638.8	36.1	25191	610	14.41	1.64	298.0	6.5	36.91	5.87	7.57	0.40
Q9505	184.7	11.1	463.8	38.4	16291	405	10.20	1.17	639.5	5.4	38.03	4.44	11.11	0.41
Q9506	195.2	11.8	256.6	41.2	12588	338	10.33	1.18	843.4	7.2	21.02	3.42	17.16	0.52
Q9507	248.4	14.9	423.8	24.5	17508	441	13.07	1.49	294.5	3.5	33.85	5.15	39.26	0.79
Q9508	312.2	18.7	550.2	34.5	38833	857	16.27	1.85	319.2	4.4	44.56	6.58	27.32	0.72
Q9509	227.4	14.4	406.3	38.6	29374	651	12.57	1.41	665.6	4.7	23.01	3.58	16.32	0.49
Q9510	251.3	15.9	429.3	39.1	30289	673	14.32	1.60	517.5	3.9	28.73	4.38	13.22	0.45
P9309	267.9	16.0	458.3	38.2	26444	694	11.04	1.22	638.5	3.2	36.64	4.40	23.78	0.50
P9310	191.1	11.4	355.6	40.5	16263	452	7.69	0.85	816.4	4.2	21.43	3.53	18.03	0.44
P9311	89.0	5.5	234.7	52.8	15722	439	7.15	0.79	957.8	5.5	17.69	3.40	8.00	0.29
P9312	266.9	15.9	593.7	32.5	43461	1121	13.38	1.48	287.8	3.5	35.80	5.41	16.81	0.46
P9401	237.6	14.2	559.4	35.6	45980	1188	14.39	1.59	416.0	5.5	46.10	6.31	15.58	0.45
P9402	186.1	11.5	539.0	31.1	39390	812	19.45	2.11	245.1	3.0	45.92	7.63	11.73	0.37
P9403	349.9	21.5	524.7	34.6	50897	1028	18.37	2.00	432.0	5.0	32.51	7.86	29.43	0.61
P9404	302.6	18.6	682.3	37.6	33147	708	14.40	1.57	252.4	4.5	37.44	7.43	7.99	0.35
P9405	68.7	4.4	480.4	32.2	8323	218	7.33	0.81	403.6	3.1	29.15	4.99	7.89	0.28
P9406	163.9	10.2	423.8	29.8	20442	445	9.96	1.09	368.6	2.9	32.99	5.21	14.53	0.38
P9407	715.1	43.6	583.9	33.2	29327	619	14.18	1.55	403.3	3.4	13.67	4.70	11.29	0.35
P9408	326.7	20.0	527.0	42.9	30545	640	11.74	1.28	461.8	4.1	39.16	6.35	16.06	0.41
P9409	188.1	11.4	307.7	36.7	19563	489	8.01	0.90	799.0	9.6	22.21	4.38	10.87	0.47
P9410	206.2	12.4	446.7	36.6	22317	554	9.20	1.03	573.1	6.9	23.01	5.09	12.62	0.54
P9411	269.9	16.2	582.9	33.3	31185	736	10.77	1.21	419.8	7.5	18.32	6.02	24.20	0.77
P9412	171.4	10.4	686.8	38.0	25909	630	10.06	1.13	378.0	9.0	44.32	7.11	14.77	0.59
P9501	202.5	12.2	681.6	37.4	30858	703	33.28	3.70	289.7	3.5	38.00	5.68	13.35	0.53
P9502	228.3	13.8	588.0	32.1	25406	610	11.20	1.25	246.4	3.2	41.30	5.72	12.97	0.53
P9503	133.2	8.2	465.7	37.0	17886	457	13.87	1.58	406.8	6.0	35.08	5.11	43.52	0.95
P9504	80.0	5.1	668.5	34.9	24412	595	11.24	1.28	188.1	4.9	41.87	6.52	7.25	0.38
P9505	177.8	10.7	785.3	44.9	21220	499	10.11	1.16	515.7	4.8	38.87	4.61	9.96	0.41
P9506	120.2	7.3	383.2	43.9	11263	309	8.97	1.03	830.1	7.1	21.72	3.75	18.66	0.54
P9507	210.9	12.7	384.8	23.0	13909	370	8.71	1.00	236.2	2.8	17.45	4.10	25.63	0.67
P9508	206.3	12.5	573.8	36.9	22879	553	12.14	1.39	300.0	3.9	24.21	5.42	21.03	0.62
P9509	216.0	13.6	605.4	44.5	29235	645	16.27	1.82	614.6	4.3	21.08	3.59	22.32	0.57
P9510	187.7	11.9	466.5	37.8	25804	590	12.17	1.36	436.1	3.3	25.27	4.13	11.63	0.42
P9511			629.7	40.2										
R9309	572.1	33.9	449.1	42.2	22008	588	22.67	2.50	703.5	3.7	16.83	3.51	20.54	0.46
R9310	274.7	16.4	348.2	40.8	17597	484	13.02	1.44	889.0	4.7	17.69	4.00	17.52	0.44
R9311	143.4	8.7	345.8	51.5	12248	358	8.69	0.96	1027.4	6.5	9.23	3.06	8.74	0.32
R9312	559.8	33.2	528.5	31.0	40848	1063	18.61	2.05	301.3	4.4	34.21	6.24	15.12	0.44
R9401	444.3	26.4	594.4	36.1	30223	804	21.46	2.36	401.7	6.3	39.81	6.56	15.01	0.44
R9402	412.6	25.3	620.1	32.9	38611	799	25.03	2.72	241.0	3.5	43.74	8.02	11.05	0.37
R9403	79.4	5.3	899.8	40.2	36999	775	15.47	1.69	206.8	3.8	43.74	8.13	5.56	0.31
R9404	195.7	12.2	906.2	40.2	38996	818	17.18	1.87	141.1	4.3	65.83	9.53	3.80	0.26
R9405	154.8	9.6	409.3	28.1	18302	404	8.43	0.92	257.9	2.2	44.46	5.55	7.48	0.28
R9406	263.7	16.2	475.2	29.4	24629	529	12.21	1.33	396.5	3.4	41.94	6.20	17.89	0.44
R9407	417.7	25.6	548.6	33.4	28587	605	15.02	1.64	409.7	3.6	31.94	6.40	9.31	0.32
R9408	350.8	21.5	526.9	41.0	24368	531	13.04	1.42	517.6	4.8	21.88	5.52	10.57	0.35
R9409	263.1	15.8	462.8	42.4	29013	677	8.54	0.96	853.9	11.2	N. D.	N. D.	11.50	0.49
R9410	272.5	16.4	686.7	44.5	32588	758	10.84	1.22	640.7	7.8	29.48	5.41	16.88	0.63
R9411	224.4	13.6	621.3	35.4	40408	917	11.26	1.26	334.4	7.7	26.47	5.97	19.95	0.70
R9412	166.3	10.2	768.8	39.4	39247	906	13.90	1.55	351.2	10.9	54.09	8.53	14.58	0.62
R9501	285.0	17.0	740.2	38.8	38704	806	19.07	2.12	262.9	2.9	41.40	4.61	13.40	0.41
R9502	249.9	15.0	725.7	35.4	32234	736	13.71	1.53	226.1	3.1	47.95	6.76	12.72	0.55
R9503	124.2	7.6	424.9	35.2	17204	443	13.02	1.48	493.2	7.4	53.20	6.92	12.72	0.47
R9504	68.7	4.6	680.2	36.4	27088	647	12.69	1.45	223.1	6.9	40.94	6.28	5.65	0.36
R9505	131.4	8.0	435.9	37.3	19336	462	9.55	1.09	550.5	4.8	27.10	4.04	9.56	0.39
R9506	136.3	8.3	254.8	40.2	10688	303	7.13	0.82	776.1	7.0	17.63	3.75	19.10	0.57
R9507	243.6	14.7	622.4	34.2	24510	576	12.02	1.37	287.8	3.6	32.36	5.10	30.39	0.75
R9508	238.9	14.4	505.8	32.7	26345	623	11.83	1.35	228.9	4.0	46.20	6.26	21.21	0.63
R9509	134.9	8.6	235.6	27.2	16306	398	6.83	0.77	399.5	3.0	22.24	3.31	11.72	0.40
R9510	181.2	11.5	490.1	39.6	27705	630	11.28	1.26	358.6	3.0	32.47	5.00	10.03	0.39
Soil														
Sample	Cr	Error Cr	Mn	Error Mn	Fe	Error Fe	Co	Error Co	Br	Error Br	Rb	Error Rb	Sb	Error Sb
	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)
Soil 01	31.6	2.4	1251.3	67.1	40616	852	15.07	1.68	84.3	1.2	53.97	4.96	1.18	0.22
Soil 02	32.6	2.5	1334.2	71.2	45806	963	16.43	1.84	127.2	1.7	39.02	4.73	N. D.	N. D.
Soil 03	40.0	2.9	1336.0	71.1	47313	985	18.00	2.01	77.2	1.5	38.70	4.90	N. D.	N. D.
Soil 04	32.4	2.5	1426.0	75.3	51214	1060	19.02	2.12	96.9	1.7	47.28	5.30	0.59	0.23
Soil 05	42.1	3.1	1532.0	80.9	54342	1132	21.65	2.41	84.2	1.7	64.40	6.47	N. D.	N. D.

N.D.: Not detected

Basin														
Sample	Cs	Error Cs	La	Error La	Ce	Error Ce	Eu	Error Eu	Hf	Error Hf	Ta	Error Ta	Th	Error Th
	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)
Q9309	1.19	0.16	7.25	0.66	43.42	2.40	0.310	0.032	0.90	0.15	0.444	0.100	2.64	0.40
Q9310	1.39	0.15	6.37	0.61	29.30	1.76	0.317	0.030	0.96	0.16	0.455	0.093	1.83	0.36
Q9311	1.01	0.11	5.13	0.61	19.60	1.45	0.233	0.024	0.76	0.14	0.330	0.076	2.50	0.38
Q9312	2.49	0.21	16.76	1.26	62.92	3.16	0.529	0.040	2.46	0.33	0.705	0.129	5.52	0.58
Q9401	3.11	0.26	11.54	1.02	55.84	2.90	0.524	0.040	2.29	0.33	0.715	0.133	5.56	0.60
Q9402	2.59	0.20	14.86	0.69	12.52	1.03	0.572	0.040	2.59	0.33	0.968	0.197	5.72	0.59
Q9403	3.47	0.25	22.20	1.00	27.31	1.85	1.072	0.059	2.58	0.35	0.703	0.153	10.11	0.82
Q9404	3.55	0.23	19.42	0.99	26.39	1.80	0.903	0.053	2.72	0.37	0.452	0.115	8.52	0.79
Q9405	2.37	0.16	10.23	0.52	16.06	1.11	0.317	0.030	1.55	0.23	0.303	0.080	3.08	0.35
Q9406	1.87	0.16	7.31	0.43	9.04	0.79	0.245	0.026	0.75	0.13	0.247	0.072	2.28	0.37
Q9407	1.59	0.14	7.47	0.48	8.95	0.78	0.238	0.025	1.30	0.19	0.382	0.093	1.92	0.39
Q9408	1.58	0.14	8.39	0.49	12.98	0.98	0.283	0.027	1.43	0.20	0.554	0.121	3.38	0.43
Q9409	1.13	0.14	6.45	0.63	22.33	1.64	0.191	0.027	0.96	0.19	0.380	0.101	N. D.	N. D.
Q9410	1.04	0.14	6.98	0.57	24.57	1.79	0.258	0.028	0.45	0.18	N. D.	N. D.	4.72	0.69
Q9411	1.63	0.17	12.31	0.93	24.70	1.91	0.369	0.037	1.41	0.27	0.590	0.139	2.75	0.65
Q9412	2.76	0.25	12.11	1.09	29.42	2.15	0.516	0.041	2.00	0.35	0.578	0.130	5.53	0.89
Q9501	2.52	0.25	16.34	0.84	52.56	3.31	0.603	0.046	1.69	0.28	0.686	0.150	4.70	0.62
Q9502	3.42	0.30	22.65	1.10	49.19	3.17	0.789	0.052	3.08	0.44	0.949	0.174	7.67	0.87
Q9503	2.71	0.18	10.38	0.79	30.18	1.91	0.370	0.038	1.39	0.24	0.686	0.126	4.17	0.62
Q9504	2.83	0.21	13.21	1.02	30.31	1.97	0.586	0.049	1.57	0.27	0.321	0.101	7.27	0.85
Q9505	2.51	0.17	10.15	0.71	23.66	1.57	0.282	0.032	1.11	0.18	N. D.	N. D.	1.66	0.35
Q9506	1.82	0.16	6.38	0.61	19.93	1.40	0.259	0.029	1.64	0.23	0.434	0.094	3.12	0.44
Q9507	2.01	0.16	8.24	0.51	10.03	1.14	0.247	0.032	1.25	0.21	0.799	0.139	N. D.	N. D.
Q9508	2.18	0.20	11.03	0.71	36.17	2.22	0.404	0.040	1.59	0.29	0.623	0.127	1.47	0.51
Q9509	1.65	0.16	5.77	0.51	24.81	1.35	0.233	0.024	0.82	0.18	0.419	0.089	N. D.	N. D.
Q9510	1.75	0.16	8.85	0.62	29.19	1.54	0.348	0.030	2.08	0.29	0.289	0.074	3.06	0.49
P9309	1.52	0.16	6.70	0.63	12.21	1.31	0.249	0.029	0.87	0.14	0.596	0.113	2.01	0.39
P9310	1.56	0.14	8.48	0.76	32.14	1.81	0.340	0.032	1.32	0.19	0.699	0.125	2.71	0.37
P9311	0.88	0.10	3.67	0.60	20.99	1.46	0.277	0.026	0.99	0.15	0.340	0.074	N. D.	N. D.
P9312	1.94	0.17	9.77	0.79	52.65	2.71	0.500	0.039	2.13	0.32	0.970	0.167	4.72	0.56
P9401	3.03	0.25	14.35	1.16	62.76	3.17	0.472	0.040	1.42	0.23	0.603	0.123	5.57	0.62
P9402	2.33	0.18	14.96	0.68	14.96	1.13	0.526	0.037	2.20	0.29	1.212	0.237	6.08	0.58
P9403	3.38	0.24	13.59	0.71	14.78	1.17	0.476	0.038	7.57	0.89	1.198	0.238	6.04	0.65
P9404	2.46	0.18	12.07	0.73	16.85	1.25	0.581	0.040	2.39	0.32	0.356	0.113	5.66	0.65
P9405	0.86	0.10	4.61	0.42	2.87	0.48	0.186	0.022	0.74	0.12	0.119	0.050	1.56	0.28
P9406	2.33	0.19	10.47	0.50	16.98	1.17	0.367	0.032	1.48	0.20	0.587	0.126	4.53	0.43
P9407	1.90	0.16	10.16	0.55	20.53	1.43	0.340	0.030	1.31	0.19	0.454	0.105	2.33	0.36
P9408	1.52	0.14	10.22	0.51	14.13	1.05	0.359	0.029	1.97	0.26	0.527	0.115	1.63	0.35
P9409	1.17	0.14	6.91	0.61	11.79	1.25	0.211	0.026	0.71	0.18	0.316	0.087	N. D.	N. D.
P9410	1.48	0.18	7.09	0.55	23.16	1.69	0.308	0.031	0.79	0.19	0.423	0.105	N. D.	N. D.
P9411	1.70	0.18	11.77	0.85	30.91	2.20	0.398	0.037	2.01	0.32	0.804	0.158	N. D.	N. D.
P9412	2.44	0.22	11.83	0.99	36.31	2.41	0.622	0.043	1.82	0.31	0.946	0.174	5.74	0.83
P9501	3.06	0.29	14.44	0.82	42.89	2.74	0.598	0.044	1.96	0.31	1.252	0.208	4.87	0.63
P9502	2.84	0.26	17.22	0.86	41.57	2.72	0.711	0.048	2.05	0.32	0.908	0.167	5.87	0.71
P9503	2.22	0.16	12.88	0.88	24.63	1.68	0.307	0.038	1.17	0.21	1.165	0.189	4.11	0.65
P9504	2.69	0.20	33.07	1.88	60.08	3.43	0.673	0.055	2.11	0.32	0.573	0.123	6.51	0.77
P9505	2.94	0.19	8.86	0.65	21.05	1.47	0.341	0.033	0.91	0.17	0.503	0.098	1.85	0.37
P9506	1.37	0.12	7.84	0.72	14.50	1.16	0.195	0.028	1.46	0.23	0.402	0.089	1.51	0.38
P9507	1.25	0.13	6.41	0.42	9.87	1.07	0.237	0.030	1.04	0.19	0.417	0.101	1.75	0.39
P9508	1.98	0.17	10.82	0.67	18.03	1.48	0.472	0.044	1.48	0.26	0.537	0.112	4.29	0.63
P9509	1.64	0.15	8.73	0.61	29.78	1.52	0.286	0.027	1.57	0.24	0.764	0.124	1.83	0.44
P9510	1.91	0.17	10.59	0.64	32.09	1.63	0.409	0.032	1.52	0.24	0.505	0.095	4.06	0.61
P9511														
R9309	1.47	0.15	5.73	0.64	34.52	2.20	0.182	0.026	1.03	0.18	0.238	0.070	1.54	0.33
R9310	1.54	0.14	7.33	0.67	31.27	1.83	0.354	0.031	1.22	0.18	0.401	0.087	2.79	0.39
R9311	0.97	0.11	5.66	0.67	18.08	1.41	0.257	0.026	0.93	0.16	0.405	0.090	1.39	0.32
R9312	2.68	0.23	15.92	1.23	66.33	3.34	0.683	0.045	3.05	0.39	0.501	0.111	6.58	0.70
R9401	3.48	0.27	13.73	1.19	63.05	3.19	0.594	0.044	2.03	0.29	0.588	0.118	5.83	0.65
R9402	3.25	0.22	16.68	0.78	18.17	1.34	0.661	0.044	2.43	0.32	0.813	0.168	7.15	0.71
R9403	3.69	0.24	22.77	1.03	33.33	2.19	1.117	0.060	4.28	0.55	0.795	0.178	11.43	0.89
R9404	3.81	0.26	22.82	1.18	30.80	2.08	0.959	0.055	3.27	0.44	0.726	0.159	7.60	0.72
R9405	2.46	0.17	10.53	0.50	15.71	1.09	0.456	0.033	1.20	0.17	0.579	0.127	3.99	0.38
R9406	2.94	0.21	11.44	0.54	14.27	1.08	0.436	0.034	1.79	0.24	0.569	0.126	4.19	0.43
R9407	1.88	0.15	7.85	0.47	12.85	1.00	0.286	0.029	1.30	0.20	0.267	0.078	2.16	0.37
R9408	1.60	0.14	7.28	0.50	14.64	1.06	0.301	0.029	1.18	0.18	0.454	0.101	1.18	0.35
R9409	1.50	0.16	13.24	0.91	42.03	2.68	0.288	0.029	2.28	0.37	0.338	0.095	2.32	0.51
R9410	1.24	0.16	7.89	0.60	29.89	2.07	0.227	0.030	1.20	0.23	0.895	0.162	N. D.	N. D.
R9411	1.86	0.19	11.99	0.96	33.06	2.35	0.427	0.037	1.96	0.33	0.818	0.184	4.43	0.78
R9412	2.79	0.26	16.95	1.46	42.65	2.89	0.603	0.044	1.82	0.34	0.558	0.141	4.27	0.84
R9501	3.02	0.26	16.42	0.78	52.31	3.14	0.644	0.036	2.65	0.35	0.804	0.140	5.14	0.49
R9502	3.55	0.31	20.65	0.99	44.16	2.88	0.858	0.053	2.50	0.38	0.876	0.163	6.79	0.77
R9503	2.59	0.18	8.97	0.77	28.26	1.79	0.377	0.036	0.94	0.19	N. D.	N. D.	2.09	0.46
R9504	2.94	0.20	16.76	1.30	40.15	2.44	0.682	0.053	1.57	0.28	0.450	0.105	5.80	0.80
R9505	2.12	0.15	8.59	0.68	23.50	1.52	0.256	0.030	1.05	0.18	0.632	0.111	1.27	0.33
R9506	1.30	0.11	4.72	0.58	10.39	1.10	0.164	0.026	0.33	0.11	0.322	0.084	N. D.	N. D.
R9507	1.90	0.15	9.14	0.59	18.40	1.43	0.367	0.038	1.44	0.23	0.410	0.108	3.07	0.52
R9508	2.19	0.17	9.69	0.67	28.06	1.82	0.410	0.040	1.37	0.24	1.153	0.185	2.91	0.61
R9509	1.20	0.12	4.66	0.40	18.02	1.06	0.198	0.022	1.23	0.19	0.359	0.070	1.83	0.38
R9510	1.92	0.17	10.41	0.61	31.49	1.62	0.398	0.032	1.21	0.23	0.568	0.102	4.26	0.60
Soil														
Sample	Cs	Error Cs	La	Error La	Ce	Error Ce	Eu	Error Eu	Hf	Error Hf	Ta	Error Ta	Th	Error Th
	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)	(μg/g dry)
Soil 01	3.53	0.29	25.98	1.21	61.86	2.75	1.024	0.055	5.21	0.61	0.613	0.109	9.74	0.70
Soil 02	3.68	0.30	28.91	1.35	69.79	3.11	1.351	0.068	4.46	0.55	0.437	0.101	10.41	0.86
Soil 03	4.03	0.31	27.66	1.31	71.26	3.14	1.278	0.063	4.54	0.54	0.555	0.107	10.16	0.79
Soil 04	3.86	0.31	27.33	1.30	68.98	3.08	1.398	0.067	5.74	0.57	0.456	0.101	9.65	0.79
Soil 05	3.81	0.31	22.71	1.12	68.53	3.08	1.117	0.061	2.95	0.42	0.480	0.114	9.54	0.78

N.D.: Not detected

Basin		
Sample	U	Error U
	(μg/g dry)	(μg/g dry)
Q9309	N. D.	N. D.
Q9310	N. D.	N. D.
Q9311	N. D.	N. D.
Q9312	N. D.	N. D.
Q9401	N. D.	N. D.
Q9402	N. D.	N. D.
Q9403	4.89	1.12
Q9404	N. D.	N. D.
Q9405	N. D.	N. D.
Q9406	N. D.	N. D.
Q9407	N. D.	N. D.
Q9408	N. D.	N. D.
Q9409	N. D.	N. D.
Q9410	N. D.	N. D.
Q9411	N. D.	N. D.
Q9412	N. D.	N. D.
Q9501	N. D.	N. D.
Q9502	N. D.	N. D.
Q9503	N. D.	N. D.
Q9504	N. D.	N. D.
Q9505	N. D.	N. D.
Q9506	N. D.	N. D.
Q9507	N. D.	N. D.
Q9508	N. D.	N. D.
Q9509	N. D.	N. D.
Q9510	N. D.	N. D.
P9309	N. D.	N. D.
P9310	N. D.	N. D.
P9311	N. D.	N. D.
P9312	N. D.	N. D.
P9401	N. D.	N. D.
P9402	N. D.	N. D.
P9403	N. D.	N. D.
P9404	N. D.	N. D.
P9405	N. D.	N. D.
P9406	N. D.	N. D.
P9407	N. D.	N. D.
P9408	N. D.	N. D.
P9409	N. D.	N. D.
P9410	N. D.	N. D.
P9411	N. D.	N. D.
P9412	N. D.	N. D.
P9501	N. D.	N. D.
P9502	N. D.	N. D.
P9503	N. D.	N. D.
P9504	N. D.	N. D.
P9505	N. D.	N. D.
P9506	N. D.	N. D.
P9507	N. D.	N. D.
P9508	N. D.	N. D.
P9509	N. D.	N. D.
P9510	N. D.	N. D.
P9511		
R9309	N. D.	N. D.
R9310	N. D.	N. D.
R9311	N. D.	N. D.
R9312	N. D.	N. D.
R9401	N. D.	N. D.
R9402	N. D.	N. D.
R9403	N. D.	N. D.
R9404	N. D.	N. D.
R9405	N. D.	N. D.
R9406	N. D.	N. D.
R9407	N. D.	N. D.
R9408	N. D.	N. D.
R9409	N. D.	N. D.
R9410	N. D.	N. D.
R9411	N. D.	N. D.
R9412	N. D.	N. D.
R9501	N. D.	N. D.
R9502	N. D.	N. D.
R9503	N. D.	N. D.
R9504	N. D.	N. D.
R9505	N. D.	N. D.
R9506	N. D.	N. D.
R9507	N. D.	N. D.
R9508	N. D.	N. D.
R9509	N. D.	N. D.
R9510	N. D.	N. D.
Soil		
Sample	U	Error U
	(μg/g dry)	(μg/g dry)
Soil 01	4.76	0.52
Soil 02	3.29	0.93
Soil 03	N. D.	N. D.
Soil 04	N. D.	N. D.
Soil 05	2.41	0.87
N.D.: Not detected		

Table 11 Slope of linear correlation and correlation coefficient between depositions of radionuclides at three sampling points (height:1.5m, 4m, 10m) in Tokai-mura

Period	1993.9-2001.3			1993.9-1995.10			1993.9-1995.10(except 1994.3*,1994.4*)		
Sampling point	P(4m)-Q(1.5m)	P(4m)-R(10m)	Q(1.5m)-R(10m)	P(4m)-Q(1.5m)	P(4m)-R(10m)	Q(1.5m)-R(10m)	P(4m)-Q(1.5m)	P(4m)-R(10m)	Q(1.5m)-R(10m)
Sampling Period (d)	0.58/0.71	0.58/0.71	1.00#/1.00#	0.32/0.47	0.32/0.46	1.00/1.00#	1.01/1.00#	1.01/1.00#	1.00#/1.00#
Weight (g dry m^{-2} d^{-1})	0.77/0.76	1.12/0.75	1.39/0.94	0.47/0.37	0.59/0.34	1.33/0.97	0.55/0.77	0.70/0.92	0.99/0.93
Be-7 (Bq m^{-2} d^{-1})	1.08/0.97	1.04/0.97	0.94/0.98	1.13/0.97	1.07/0.97	0.94/0.99	1.172/0.98	1.11/0.97	0.94/0.99
K-40 (Bq m^{-2} d^{-1})	0.62/0.69	0.92/0.73	1.16/0.83	0.48/0.44	0.52/0.39	1.18/0.97	0.53/0.74	0.59/0.79	0.97/0.94
Cs-137 (Bq m^{-2} d^{-1})	0.76/0.80	0.98/0.77	1.30/0.96	0.81/0.50	0.75/0.34	1.27/0.93	0.79/0.81	0.69/0.84	0.69/0.87
Pb-210 (Bq m^{-2} d^{-1})	0.97/0.89	0.96/0.89	0.94/0.95	0.92/0.84	0.94/0.84	0.99/0.97	0.93/0.86	0.95/0.86	0.99/0.97

*:Sampling period was different at point P(4m)

#:Slope of liner correlation and correlation coefficient were not equal to1.00, but they were more than 0.995 and less than 1.005

Numerical values of each cell mean slope of linear correlation / correlation coefficient respectively

Table 12 Slope of linear correlation and correlation coefficient between depositions of stable elements at three sampling points (height:1.5m, 4m, 10m) in Tokai-mura

Period	1993.9-1995.10			1993.9-1995.10(except 1994.3*,1994.4*)		
Sampling point	P(4m)-Q(1.5m)	P(4m)-R(10m)	Q(1.5m)-R(10m)	P(4m)-Q(1.5m)	P(4m)-R(10m)	Q(1.5m)-R(10m)
Sampling Period (d)	0.32/0.47	0.32/0.46	1.00+/1.00+	1.01/1.00+	1.01/1.00+	1.00+/1.00+
Weight (g dry m^{-2} d^{-1})	0.47/0.37	0.59/0.34	1.33/0.97	0.55/0.77	0.70/0.92	0.99/0.93
Na (μg m^{-2} d^{-1})	0.83/0.91	0.89/0.93	1.02/0.98	0.87/0.95	0.92/0.98	1.02/0.98
Mg (μg m^{-2} d^{-1})	-0.48#/-0.18#	#/#	2.58#/1.00#	-0.48#/-0.18#	#/#	#/#
Al (μg m^{-2} d^{-1})	0.41/0.22	0.68/0.24	1.49/0.99	0.41/0.82	0.68/0.93	1.36/0.92
Cl (μg m^{-2} d^{-1})	0.94/0.92	0.88/0.93	0.91/0.98	0.96/0.93	0.90/0.94	0.91/0.98
K (μg m^{-2} d^{-1})	0.55/0.46	0.65/0.44	1.17/0.93	0.56/0.76	0.64/0.78	1.00+/0.90
Ca (μg m^{-2} d^{-1})	0.43/0.50	0.42/0.41	1.04/0.90	0.48/0.85	0.48/0.84	0.74/0.77
Sc (μg m^{-2} d^{-1})	0.49/0.25	0.82/0.26	1.63/1.00+	0.47/0.86	0.79/0.95	1.44/0.95
Ti (μg m^{-2} d^{-1})	0.34#/0.82#	0.11#/0.08#	0.82#/0.61#	0.41#/0.97#	0.18#/0.74#	0.47#/0.85#
V (μg m^{-2} d^{-1})	0.38/0.23	0.59/0.28	1.23/0.98	0.42/0.79	0.64/0.88	1.18/0.86
Cr (μg m^{-2} d^{-1})	0.17/0.15	0.66/0.43	0.97/0.72	0.07/0.06	0.35/0.33	0.75/0.76
Mn (μg m^{-2} d^{-1})	0.38/0.22	0.54/0.22	1.41/0.98	0.47/0.84	0.64/0.92	1.10/0.88
Fe (μg m^{-2} d^{-1})	0.66/0.37	1.07/0.39	1.52/0.98	0.41/0.68	0.68/0.87	1.02/0.79
Co (μg m^{-2} d^{-1})	0.64/0.44	0.69/0.33	1.37/0.94	0.62/0.78	0.65/0.85	0.78/0.82
Br (μg m^{-2} d^{-1})	1.00+/0.85	0.92/0.76	0.98/0.96	1.08/0.96	1.03/0.98	0.91/0.97
Rb (μg m^{-2} d^{-1})	0.46/0.36	0.67/0.32	1.62/0.96	0.52/0.72	0.75/0.85	1.11/0.90
Sb (μg m^{-2} d^{-1})	0.13/0.44	0.15/0.49	0.94/0.90	0.12/0.50	0.14/0.67	0.77/0.89
Cs (μg m^{-2} d^{-1})	0.59/0.37	0.81/0.34	1.48/0.98	0.55/0.76	0.74/0.87	1.10/0.92
La (μg m^{-2} d^{-1})	0.15/0.17	0.29/0.22	1.51/0.99	0.18/0.69	0.34/0.89	1.29/0.88
Ce (μg m^{-2} d^{-1})	0.18/0.31	0.37/0.35	1.68/0.96	0.24/0.70	0.47/0.89	1.34/0.86
Eu (μg m^{-2} d^{-1})	0.40/0.19	0.70/0.22	1.50/1.00+	0.43/0.86	0.74/0.91	1.54/0.96
Hf (μg m^{-2} d^{-1})	0.90/0.60	1.87/0.56	2.16/0.96	0.35/0.60	0.47/0.77	0.74/0.70
Ta (μg m^{-2} d^{-1})	0.27/0.30	0.50/0.21	1.70/0.96	0.27/0.77	0.41/0.57	1.41/0.74
Th (μg m^{-2} d^{-1})	0.52/0.26	0.58/0.19	1.54/0.99	0.54/0.89	0.59/0.85	1.04/0.92
U (μg m^{-2} d^{-1})	#	#	#	#	#	#

*:Sampling period was different at point P(4m)

Numerical values of each cell mean slope of linear correlation / correlation coefficient respectively

+:Slope of liner correlation and correlation coefficient were not equal to1.00, but they were more than 0.995 and less than 1.005

#:Number of dataset was small

Table 13 Slope of linear correlation and correlation coefficient between concentrations of radionuclides at three sampling points (height:1.5m, 4m, 10m) in Tokai-mura

Period	1993.9-2001.3			1993.9-1995.10			1993.9-1995.10(except 1994.3*,1994.4*)		
Sampling point	P(4m)-Q(1.5m)	P(4m)-R(10m)	Q(1.5m)-R(10m)	P(4m)-Q(1.5m)	P(4m)-R(10m)	Q(1.5m)-R(10m)	P(4m)-Q(1.5m)	P(4m)-R(10m)	Q(1.5m)-R(10m)
Sampling Period (d)	0.58/0.71	0.58/0.71	1.00#/1.00#	0.32/0.47	0.32/0.46	1.00#/1.00#	1.01/1.00#	1.01/1.00#	1.00#/1.00#
Weight (g dry m^{-2} d^{-1})	0.77/0.76	1.12/0.75	1.39/0.94	0.47/0.37	0.59/0.34	1.33/0.97	0.55/0.77	0.70/0.92	0.99/0.93
Be-7 (Bq g^{-1} dry)	0.91/0.90	0.96/0.90	0.96/0.90	0.86/0.87	0.88/0.88	0.95/0.93	0.79/0.88	0.83/0.88	0.96/0.92
K-40 (Bq g^{-1} dry)	0.17/0.18	0.43/0.59	0.15/0.18	0.38/0.40	0.23/0.19	0.63/0.50	0.41/0.43	0.27/0.23	0.60/0.47
Cs-137 (Bq g^{-1} dry)	0.44/0.54	0.25/0.33	0.60/0.66	0.64/0.49	0.88/0.55	0.88/0.69	0.67/0.46	1.07/0.59	0.89/0.69
Pb-210 (Bq g^{-1} dry)	0.86/0.81	1.01/0.85	0.99/0.88	0.82/0.69	0.92/0.72	0.96/0.88	0.85/0.82	0.97/0.84	0.93/0.832

*:Sampling period was different at point P(4m)

#:Slope of liner correlation and correlation coefficient were not equal to1.00, but they were more than 0.995 and less than 1.005

Numerical values of each cell mean slope of linear correlation / correlation coefficient respectively

Table 14 Slope of linear correlation and correlation coefficient between concentrations of stable elements at three sampling points (height:1.5m, 4m, 10m) in Tokai-mura

Period	1993.9-1995.10			1993.9-1995.10(except 1994.3*,1994.4*)		
Sampling point	P(4m)-Q(1.5m)	P(4m)-R(10m)	Q(1.5m)-R(10m)	P(4m)-Q(1.5m)	P(4m)-R(10m)	Q(1.5m)-R(10m)
Sampling Period (d)	0.32/0.47	0.32/0.46	1.00+/1.00+	1.01/1.00+	1.01/1.00+	1.00+/1.00+
Weight (g dry m^{-2} d^{-1})	0.47/0.37	0.59/0.34	1.33/0.97	0.55/0.77	0.70/0.92	0.99/0.93
Na ($\mu g\ g^{-1}$ dry)	0.92/0.93	0.93/0.91	0.98/0.96	0.90/0.95	0.91/0.94	0.98/0.95
Mg ($\mu g\ g^{-1}$ dry)	-0.16#/-0.16#	#/#	-5.68#/-1.00#	-0.16#/-0.16#	#/#	#/#
Al ($\mu g\ g^{-1}$ dry)	1.09/0.76	1.26/0.80	1.05/0.96	0.88/0.85	1.06/0.86	1.10/0.92
Cl ($\mu g\ g^{-1}$ dry)	1.13/0.94	1.08/0.94	0.93/0.96	1.09/0.95	1.05/0.95	0.92/0.96
K ($\mu g\ g^{-1}$ dry)	0.29/0.35	0.05/0.05	0.37/0.28	0.42/0.48	0.18/0.16	0.33/0.26
Ca ($\mu g\ g^{-1}$ dry)	0.07/0.08	-0.13/-0.13	-0.03/-0.02	0.11/0.14	-0.11/-0.12	-0.12/-0.10
Sc ($\mu g\ g^{-1}$ dry)	1.28/0.82	1.49/0.82	1.14/0.98	0.99/0.92	1.16/0.91	1.14/0.96
Ti ($\mu g\ g^{-1}$ dry)	0.38#/0.57#	-0.14#/-0.14#	-0.34#/-0.60#	0.26#/0.58#	-0.62#/-0.43#	-0.32#/-0.53#
V ($\mu g\ g^{-1}$ dry)	0.88/0.58	0.84/0.59	0.77/0.82	0.74/0.62	0.76/0.57	0.88/0.80
Cr ($\mu g\ g^{-1}$ dry)	0.21/0.17	0.47/0.43	0.74/0.84	0.34/0.28	0.59/0.54	0.75/0.84
Mn ($\mu g\ g^{-1}$ dry)	0.73/0.57	0.63/0.47	0.86/0.81	0.65/0.64	0.51/0.46	0.79/0.71
Fe ($\mu g\ g^{-1}$ dry)	0.47/0.67	0.60/0.69	0.77/0.62	0.46/0.62	0.64/0.68	0.72/0.56
Co ($\mu g\ g^{-1}$ dry)	0.56/0.50	0.47/0.52	0.61/0.76	0.58/0.51	0.46/0.52	0.60/0.76
Br ($\mu g\ g^{-1}$ dry)	1.06/0.95	1.08/0.93	0.99/0.97	1.04/0.97	1.05/0.95	1.00+/0.97
Rb ($\mu g\ g^{-1}$ dry)	0.84/0.65	0.70/0.52	0.78/0.70	0.80/0.65	0.62/0.52	0.68/0.67
Sb ($\mu g\ g^{-1}$ dry)	0.32/0.39	0.30/0.41	0.84/0.93	0.39/0.50	0.36/0.52	0.82/0.92
Cs ($\mu g\ g^{-1}$ dry)	0.86/0.78	0.97/0.80	1.03/0.92	0.78/0.75	0.91/0.78	1.01/0.90
La ($\mu g\ g^{-1}$ dry)	0.45/0.50	0.53/0.54	0.98/0.91	0.40/0.55	0.48/0.61	0.91/0.86
Ce ($\mu g\ g^{-1}$ dry)	0.66/0.71	0.73/0.76	0.91/0.89	0.68/0.72	0.76/0.78	0.91/0.89
Eu ($\mu g\ g^{-1}$ dry)	1.13/0.75	1.27/0.77	1.06/0.96	0.93/0.90	1.08/0.86	1.12/0.92
Hf ($\mu g\ g^{-1}$ dry)	0.28/0.53	0.50/0.74	0.83/0.66	0.88/0.65	0.73/0.54	0.56/0.56
Ta ($\mu g\ g^{-1}$ dry)	0.47/0.65	0.28/0.36	0.30/0.30	0.49/0.64	0.29/0.35	0.29/0.28
Th ($\mu g\ g^{-1}$ dry)	1.07/0.76	1.15/0.79	0.92/0.87	0.84/0.76	0.92/0.82	0.80/0.77
U ($\mu g\ g^{-1}$ dry)	#	#	#	#	#	#

*:Sampling period was different at point P(4m)

Numerical values of each cell mean slope of linear correlation / correlation coefficient respectively

+:Slope of liner correlation and correlation coefficient were not equal to1.00, but they were more than 0.995 and less than 1.005

#:Number of dataset was small

Table 15 Correlation coefficient between depositions or concentration of radionuclides and/or stable elements at Q(height:1.5m) point in Tokai-mura

Radionuclides			Radionuclides				Stable elements									
or			1993.9-1995.10													
Stable elements	unit	Weight	Be-7	K-40	Cs-137	Pb-210	Na	Mg	Al	Cl	K	Ca	Sc	Tl	V	Cr
unit		g dry m-2 d-1	Bq m-2 d-1	Bq m-2 d-1	Bq m-2 d-1	Bq m-2 d-1	μg m-2 d-1	μg m-2 d-1	μg m-2 d-1	μg m-2 d-1	μg m-2 d-1	μg m-2 d-1	μg m-2 d-1	μg m-2 d-1	μg m-2 d-1	μg m-2 d-1
Weight	g dry m-2 d-1	-	0.26	0.99	0.92	0.56	0.49	0.93#	0.92	0.33	0.98	0.89	0.92	0.87#	0.93	0.51
Be-7	Bq g-1 dry	-0.41	-	0.33	0.10	0.82	0.65	0.29#	-0.00¥	0.80	0.32	0.24	-0.01	0.50#	0.08	0.07
K-40	Bq g-1 dry	-0.13	0.11	-	0.89	0.62	0.53	0.92#	0.87	0.37	0.98	0.88	0.87	0.91#	0.89	0.55
Cs-137	Bq g-1 dry	0.26	-0.40	-0.29	-	0.49	0.28	0.94#	0.89	0.14	0.89	0.85	0.88	0.82#	0.88	0.47
Pb-210	Bq g-1 dry	-0.61	0.75	0.24	-0.18	-	0.60	0.71#	0.32	0.66	0.55	0.50	0.31	0.55#	0.36	0.34
Na	μg g-1dry	-0.22	0.30	0.08	-0.45	0.07	-	0.52#	0.22	0.94	0.47	0.56	0.21	0.93#	0.26	0.23
Mg	μg g-1dry	0.12#	0.10#	-0.16#	0.35#	-0.02#	0.45#	-	0.81#	0.39#	0.89#	0.94#	0.80#	#	0.81#	0.48#
Al	μg g-1dry	0.59	-0.62	0.10	0.39	-0.46	-0.60	-0.21#	-	0.02	0.89	0.76	1.00*	0.76#	0.99	0.45
Cl	μg g-1dry	-0.14	0.44	0.13	-0.38	0.17	0.93	0.59#	-0.58	-	0.32	0.40	0.00¥	0.90#	0.07	0.09
K	μg g-1dry	-0.25	-0.05	0.45	0.04	0.04	-0.16	-0.07#	0.12	-0.16	-	0.86	0.89	0.83#	0.91	0.53
Ca	μg g-1dry	-0.18	-0.11	0.22	0.05	0.11	0.32	0.40#	-0.05	0.26	-0.09	-	0.77	0.64#	0.79	0.46
Sc	μg g-1dry	0.62	-0.63	0.07	0.38	-0.49	-0.62	-0.26#	0.99	-0.61	0.09	-0.01	-	0.76#	0.99	0.45
Tl	μg g-1dry	0.02#	-0.43#	0.76#	0.51#	-0.27#	0.50#	#	0.29#	0.43#	0.50#	-0.49#	0.18#	-	0.74#	0.31#
V	μg g-1dry	0.45	-0.36	0.18	0.30	-0.28	-0.65	-0.38#	0.91	-0.58	0.21	-0.08	0.90	0.02#	-	0.47
Cr	μg g-1dry	-0.53	-0.02	0.23	-0.14	0.29	0.03	-0.30#	-0.16	-0.13	0.39	0.04	-0.16	0.35#	-0.09	-
Mn	μg g-1dry	0.46	-0.58	0.11	0.27	-0.41	-0.69	-0.39#	0.93	-0.71	0.13	-0.10	0.92	0.30#	0.89	-0.06
Fe	μg g-1dry	0.12	-0.49	0.18	0.35	-0.26	-0.60	-0.63#	0.68	-0.72	0.22	-0.00¥	0.68	0.45#	0.66	0.23
Co	μg g-1dry	-0.05	-0.17	0.10	0.56	-0.02	-0.23	-0.10#	0.22	-0.31	0.20	0.02	0.22	0.65#	0.28	0.65
Br	μg g-1dry	-0.28	0.45	0.05	-0.50	0.22	0.96	0.44#	-0.67	0.93	-0.12	0.28	-0.69	0.25#	-0.69	0.05
Rb	μg g-1dry	0.20	-0.40	0.33	0.39	-0.19	-0.69	-0.40#	0.68	-0.69	0.30	0.04	0.69	0.02#	0.71	0.12
Sb	μg g-1dry	-0.59	0.52	0.00¥	-0.12	0.72	-0.22	-0.36#	-0.38	-0.23	0.17	-0.11	-0.38	-0.51#	-0.22	0.40
Cs	μg g-1dry	0.51	-0.44	0.16	0.58	-0.27	-0.71	-0.08#	0.85	-0.64	0.27	-0.04	0.85	0.09#	0.81	-0.20
La	μg g-1dry	0.43	-0.56	0.19	0.35	-0.33	-0.66	-0.30#	0.93	-0.66	0.22	0.00¥	0.93	0.20#	0.88	0.01
Ce	μg g-1dry	-0.12	-0.15	0.36	0.20	0.15	-0.13	-0.22#	0.27	-0.23	0.40	0.18	0.30	0.12#	0.23	0.53
Eu	μg g-1dry	0.58	-0.62	0.07	0.40	-0.43	-0.57	-0.18#	0.97	-0.59	0.14	-0.02	0.98	0.17#	0.87	-0.07
Hf	μg g-1dry	0.28	-0.44	0.20	0.43	-0.25	-0.58	-0.14#	0.80	-0.60	0.36	-0.09	0.79	0.30#	0.75	0.01
Ta	μg g-1dry	-0.08	-0.05	0.35	0.27	0.22	-0.46	-0.01#	0.46	-0.46	0.49	0.14	0.39	0.10#	0.56	0.30
Th	μg g-1dry	0.55	-0.51	0.09	0.38	-0.29	-0.51	0.14#	0.90	-0.49	-0.01	0.12	0.90	-0.44#	0.81	-0.17
U	μg g-1dry	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#

Upper part of a diagonal line (-) was based on depositions of radionuclides or stable elements, lower part of a diagonal line (-) was based on concentrations of radionuclides or stable elements in deposition samples

*:Correlation coefficient was not equal to1.00, but it was more than 0.995

¥:Correlation coefficient was not equal to ±0.00, but it was less than ±0.005

#:Number of dataset was small

Radionuclides	Stable elements														
or															
Stable elements	Mn	Fe	Co	Br	Rb	Sb	Cs	La	Ce	Eu	Hf	Ta	Th	U	
unit	μg m-2 d-1	μg m-2 d-1	μg m-2 d-1	μg m-2 d-1	μg m-2 d-1	μg m-2 d-1	μg m-2 d-1	μg m-2 d-1	μg m-2 d-1	μg m-2 d-1	μg m-2 d-1	μg m-2 d-1	μg m-2 d-1	μg m-2 d-1	
Weight	0.94	0.94	0.92	0.61	0.95	0.69	0.97	0.94	0.90	0.91	0.83	0.90	0.92	#	
Be-7	0.04	0.01	0.15	0.70	0.12	0.53	0.13	0.02	0.17	-0.02	0.03	0.08	0.04	#	
K-40	0.90	0.90	0.88	0.64	0.94	0.73	0.94	0.89	0.88	0.86	0.90	0.88	0.87	#	
Cs-137	0.89	0.90	0.97	0.41	0.91	0.69	0.94	0.90	0.92	0.88	0.90	0.91	0.90	#	
Pb-210	0.35	0.34	0.47	0.69	0.44	0.74	0.45	0.35	0.51	0.30	0.35	0.44	0.40	#	
Na	0.25	0.24	0.33	0.97	0.29	0.34	0.30	0.23	0.35	0.22	0.24	0.28	0.25	#	
Mg	0.83#	0.83#	0.91#	0.67#	0.89#	0.81#	0.89#	0.83#	0.84#	0.81#	0.86#	0.89#	0.83#	#	
Al	1.00*	0.99	0.91	0.37	0.91	0.53	0.97	1.00*	0.90	1.00*	0.98	0.95	0.99	#	
Cl	0.05	0.03	0.16	0.91	0.12	0.33	0.13	0.03	0.18	0.03	0.04	0.11	0.03	#	
K	0.91	0.91	0.89	0.60	0.95	0.71	0.95	0.91	0.89	0.88	0.92	0.89	0.87	#	
Ca	0.79	0.82	0.84	0.62	0.90	0.56	0.86	0.79	0.80	0.76	0.81	0.76	0.77	#	
Sc	0.99	0.99	0.91	0.35	0.92	0.52	0.97	1.00*	0.91	1.00*	0.98	0.93	0.99	#	
Ti	0.80#	0.76#	0.84#	0.92#	0.76#	-0.02#	0.79#	0.75#	0.81#	0.73#	0.68#	0.60#	0.79#	#	
V	0.99	0.99	0.92	0.40	0.93	0.55	0.98	0.99	0.91	0.99	0.98	0.94	0.98	#	
Cr	0.47	0.49	0.61	0.30	0.51	0.41	0.48	0.47	0.56	0.46	0.49	0.47	0.44	#	
Mn	-	0.99	0.92	0.39	0.93	0.56	0.98	1.00*	0.91	0.99	0.98	0.94	0.99	#	
Fe	0.76	-	0.94	0.37	0.94	0.55	0.98	0.99	0.91	0.99	0.99	0.93	0.98	#	
Co	0.25	0.52	-	0.45	0.92	0.63	0.94	0.99	0.92	0.91	0.92	0.92	0.91	#	
Br	-0.75	-0.64	-0.25	-	0.40	0.50	0.44	0.38	0.47	0.36	0.38	0.46	0.40	#	
Rb	0.69	0.62	0.37	-0.74	-	0.64	0.97	0.94	0.90	0.90	0.95	0.88	0.90	#	
Sb	-0.26	0.00¥	0.17	-0.06	0.01	-	0.64	0.57	0.62	0.53	0.57	0.66	0.55	#	
Cs	0.77	0.53	0.18	-0.74	0.83	-0.22	-	0.98	0.93	0.97	0.98	0.94	0.96	#	
La	0.91	0.69	0.27	-0.72	0.83	-0.18	0.85	-	0.92	0.99	0.99	0.95	0.99	#	
Ce	0.27	0.41	0.41	-0.13	0.46	0.19	0.36	0.46	-	0.91	0.91	0.89	0.91	#	
Eu	0.89	0.69	0.28	-0.64	0.69	-0.30	0.84	0.94	0.40	-	0.98	0.95	0.99	#	
Hf	0.78	0.66	0.25	-0.63	0.76	-0.14	0.82	0.86	0.41	0.82	-	0.94	0.98	#	
Ta	0.52	0.47	0.39	-0.41	0.65	0.35	0.52	0.60	0.36	0.47	0.61	-	0.95	#	
Th	0.82	0.55	0.18	-0.57	0.49	0.42	0.77	0.83	0.30	0.91	0.72	0.46	-	#	
U	#	#	#	#	#	#	#	#	#	#	#	#	#	#	

Upper part of a diagonal line (-) was based on depositions of radionuclides or stable elements, lower part of a diagonal line (-) was based on concentrations of radionuclides or stable elements in deposition samples

*:Correlation coefficient was not equal to1.00, but it was more than 0.995

¥:Correlation coefficient was not equal to ±0.00, but it was less than ±0.005

#:Number of dataset was small

Table 16 Correlation coefficient between depositions or concentration of radionuclides and/or stable elements at P(height:4m) point in Tokai-mura

Radionuclides			Radionuclides				Stable elements									
or			1993.9-1995.10													
Stable elements	unit	Weight	Be-7	K-40	Cs-137	Pb-210	Na	Mg	Al	Cl	K	Ca	Sc	Tl	V	Cr
unit		g dry m-2 d-1	Bq m-2 d-1	Bq m-2 d-1	Bq m-2 d-1	Bq m-2 d-1	μg m-2 d-1	μg m-2 d-1	μg m-2 d-1	μg m-2 d-1	μg m-2 d-1	μg m-2 d-1	μg m-2 d-1	μg m-2 d-1	μg m-2 d-1	μg m-2 d-1
Weight	g dry m-2 d-1	-	0.48	0.96	0.94	0.75	0.55	0.72#	0.89	0.62	0.93	0.82	0.89	0.94#	0.92	0.41
Be-7	Bq g-1 dry	-0.26	-	0.52	0.43	0.70	0.56	-0.30#	0.29	0.62	0.47	0.32	0.29	0.60#	0.39	0.01
K-40	Bq g-1 dry	0.10	-0.01	-	0.92	0.74	0.64	0.68#	0.80	0.71	0.97	0.86	0.80	0.91#	0.84	0.43
Cs-137	Bq g-1 dry	0.11	-0.22	0.22	-	0.73	0.37	0.74#	0.91	0.44	0.91	0.73	0.92	0.94#	0.92	0.50
Pb-210	Bq g-1 dry	-0.43	0.68	-0.21	-0.05	-	0.49	-0.24#	0.58	0.61	0.74	0.67	0.56	0.75#	0.67	0.27
Na	μg g-1dry	-0.08	0.38	0.22	-0.44	0.03	-	0.37#	0.24	0.97	0.61	0.71	0.24	0.58#	0.30	0.10
Mg	μg g-1dry	-0.25#	-0.38#	-0.17#	0.38#	-0.07#	-0.04#	-	0.56#	0.26#	0.46#	0.29#	0.61#	0.54#	0.38#	0.48#
Al	μg g-1dry	0.32	0.55	0.19	0.58	-0.30	-0.51	0.46#	-	0.30	0.76	0.56	1.00*	0.92#	0.98	0.40
Cl	μg g-1dry	0.02	0.47	0.27	-0.47	0.04	0.95	-0.13#	-0.52	-	0.70	0.77	0.29	0.54#	0.37	0.16
K	μg g-1dry	-0.12	-0.08	0.57	0.28	-0.04	0.08	-0.61#	0.18	0.02	-	0.90	0.76	0.85#	0.78	0.40
Ca	μg g-1dry	0.04	-0.20	0.24	-0.10	-0.32	-0.00¥	-0.55#	-0.26	0.10	0.28	-	0.57	0.62#	0.62	0.39
Sc	μg g-1dry	0.34	-0.60	0.18	0.64	0.37	-0.54	0.42#	0.98	-0.57	0.22	-0.20	-	0.92#	0.98	0.41
Tl	μg g-1dry	0.33#	-0.01#	0.53#	0.39#	-0.06#	-0.04#	-0.39#	0.28#	-0.10#	0.27#	-0.30#	0.32#	-	0.96#	0.56#
V	μg g-1dry	0.28	-0.28	0.11	0.48	0.02	-0.53	0.38#	0.81	-0.48	-0.05	-0.22	0.77	0.52#	-	0.41
Cr	μg g-1dry	-0.40	-0.23	-0.16	0.09	0.01	-0.23	0.55#	0.09	-0.29	-0.10	0.13	0.12	-0.14#	0.17	-
Mn	μg g-1dry	0.18	-0.36	0.43	0.57	-0.33	-0.60	0.21#	0.71	-0.55	0.23	-0.01	0.71	0.44#	0.64	0.22
Fe	μg g-1dry	-0.20	-0.43	0.07	0.42	-0.03	-0.38	0.36#	0.58	-0.50	0.35	-0.04	0.62	0.05#	0.55	0.45
Co	μg g-1dry	-0.05	-0.36	0.34	0.38	-0.12	-0.30	0.04#	0.59	-0.35	0.30	0.05	0.56	0.05#	0.45	0.22
Br	μg g-1dry	-0.22	0.53	0.11	-0.52	0.25	0.93	-0.09#	-0.64	0.88	0.02	-0.04	-0.67	-0.10#	-0.54	-0.17
Rb	μg g-1dry	0.36	-0.45	0.25	0.41	-0.35	-0.39	-0.10#	0.65	-0.35	0.23	-0.16	0.66	0.13#	0.54	-0.21
Sb	μg g-1dry	-0.02	0.15	0.02	0.07	0.48	-0.10	0.12#	-0.14	-0.04	0.08	0.35	-0.17	-0.08#	0.12	0.04
Cs	μg g-1dry	0.24	-0.47	0.40	0.72	-0.16	0.46	0.24#	0.84	-0.48	0.31	-0.19	0.84	0.57#	0.75	0.15
La	μg g-1dry	0.66	-0.41	-0.00¥	0.41	-0.29	-0.47	0.38#	0.84	-0.43	-0.04	-0.18	0.85	0.29#	0.76	-0.06
Ce	μg g-1dry	0.27	-0.33	0.02	0.12	-0.21	-0.24	-0.00¥#	0.65	-0.27	0.18	-0.17	0.62	-0.10#	0.48	-0.07
Eu	μg g-1dry	0.22	-0.62	0.13	0.47	-0.40	-0.53	0.41#	0.93	-0.58	0.22	-0.21	0.94	0.20#	0.69	0.06
Hf	μg g-1dry	-0.06	0.28	0.15	0.48	0.03	-0.21	0.47#	0.43	-0.31	0.39	0.07	0.50	0.50#	0.48	0.25
Ta	μg g-1dry	0.04	-0.37	0.34	0.29	0.01	-0.32	0.06#	0.56	-0.34	0.38	0.16	0.54	0.23#	0.58	0.06
Th	μg g-1dry	0.27	-0.66	0.09	0.33	-0.26	-0.51	0.47#	0.85	-0.54	0.35	-0.18	0.86	0.15#	0.63	-0.10
U	μg g-1dry	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#

Upper part of a diagonal line (-) was based on depositions of radionuclides or stable elements, lower part of a diagonal line (-) was based on concentrations of radionuclides or stable elements in deposition samples

*:Correlation coefficient was not equal to1.00, but it was more than 0.995

¥:Correlation coefficient was not equal to ±0.00, but it was less than ±0.005

#:Number of dataset was small

Radionuclides or Stable elements	Stable elements													
Stable elements	Mn	Fe	Co	Br	Rb	Sb	Cs	La	Ce	Eu	Hf	Ta	Th	U
unit	μg m-2 d-1	μg m-2 d-1	μg m-2 d-1	μg m-2 d-1	μg m-2 d-1	μg m-2 d-1	μg m-2 d-1	μg m-2 d-1	μg m-2 d-1	μg m-2 d-1	μg m-2 d-1	μg m-2 d-1	μg m-2 d-1	μg m-2 d-1
Weight	0.94	0.85	0.85	0.58	0.96	0.57	0.93	0.89	0.85	0.89	0.76	0.79	0.90	#
Be-7	0.44	0.20	0.24	0.67	0.40	0.27	0.39	0.33	0.30	0.26	0.16	0.22	0.23	#
K-40	0.91	0.79	0.86	0.67	0.93	0.64	0.91	0.77	0.75	0.79	0.68	0.82	0.80	#
Cs-137	0.96	0.91	0.86	0.40	0.96	0.49	0.98	0.87	0.84	0.90	0.82	0.78	0.89	#
Pb-210	0.63	0.57	0.63	0.59	0.69	0.71	0.69	0.59	0.56	0.54	0.49	0.72	0.63	#
Na	0.36	0.22	0.35	0.97	0.39	0.49	0.37	0.25	0.26	0.23	0.17	0.41	0.38	#
Mg	0.54#	0.46#	0.29#	0.30#	0.55#	-0.51#	0.53#	0.45#	-0.05#	0.68#	0.62#	-0.12#	0.76#	#
Al	0.94	0.92	0.83	0.26	0.94	0.31	0.95	0.98	0.96	0.99	0.87	0.70	0.98	#
Cl	0.43	0.27	0.44	0.96	0.47	0.64	0.44	0.30	0.31	0.28	0.20	0.53	0.38	#
K	0.86	0.79	0.84	0.63	0.90	0.68	0.73	0.73	0.71	0.79	0.67	0.83	0.79	#
Ca	0.68	0.57	0.75	0.66	0.74	0.86	0.69	0.57	0.53	0.56	0.51	0.84	0.62	#
Sc	0.94	0.93	0.83	0.25	0.94	0.29	0.94	0.98	0.96	1.00*	0.87	0.69	0.97	#
Ti	0.98#	0.88#	0.86#	0.62#	0.94#	0.32#	0.96#	0.90#	0.88#	0.91#	0.79#	0.68#	0.86#	#
V	0.95	0.91	0.83	0.33	0.95	0.39	0.96	0.98	0.95	0.97	0.85	0.73	0.96	#
Cr	0.47	0.52	0.48	0.10	0.44	0.35	0.50	0.35	0.31	0.39	0.40	0.43	0.34	#
Mn	-	0.88	0.84	0.40	0.97	0.40	0.97	0.91	0.88	0.93	0.78	0.71	0.89	#
Fe	0.44	-	0.86	0.23	0.91	0.36	0.92	0.88	0.87	0.91	0.87	0.75	0.92	#
Co	0.46	0.55	-	0.34	0.87	0.59	0.89	0.78	0.76	0.81	0.75	0.89	0.84	#
Br	-0.65	-0.39	-0.40	-	0.42	0.50	0.39	0.27	0.28	0.24	0.16	0.40	0.34	#
Rb	0.55	0.45	0.34	-0.50	-	0.49	0.97	0.91	0.89	0.93	0.80	0.80	0.93	#
Sb	-0.14	0.08	0.10	-0.01	-0.11	-	0.49	0.31	0.29	0.28	0.31	0.82	0.38	#
Cs	0.68	0.62	0.58	-0.55	0.67	0.05	-	0.91	0.90	0.93	0.83	0.81	0.93	#
La	0.51	0.34	0.31	-0.57	0.53	-0.09	0.64	-	0.97	0.98	0.85	0.66	0.96	#
Ce	0.41	0.41	0.27	-0.28	0.40	-0.12	0.50	0.63	-	0.96	0.79	0.65	0.94	#
Eu	0.65	0.53	0.46	-0.66	0.64	-0.22	0.75	0.75	0.63	-	0.86	0.69	0.98	#
Hf	0.21	0.65	0.38	-0.25	0.21	0.25	0.55	0.32	0.04	0.40	-	0.66	0.87	#
Ta	0.34	0.56	0.68	-0.35	0.45	0.47	0.61	0.38	0.36	0.54	0.52	-	0.75	#
Th	0.37	0.57	0.37	-0.61	0.62	-0.13	0.75	0.70	0.54	0.88	0.48	0.55	-	#
U	#	#	#	#	#	#	#	#	#	#	#	#	#	#

Upper part of a diagonal line (-) was based on depositions of radionuclides or stable elements, lower part of a diagonal line (-) was based on concentrations of radionuclides or stable elements in deposition samples

*:Correlation coefficient was not equal to1.00, but it was more than 0.995

¥:Correlation coefficient was not equal to ±0.00, but it was less than ±0.005

#:Number of dataset was small

Table 17 Correlation coefficient between depositions or concentration of radionuclides and/or stable elements at R(height:10m) point in Tokai-mura

Radionuclides			Radionuclides				Stable elements									
or			1993.9-1995.10													
Stable elements	unit	Weight	Be-7	K-40	Cs-137	Pb-210	Na	Mg	Al	Cl	K	Ca	Sc	Tl	V	Cr
unit		g dry m-2 d-1	Bq m-2 d-1	Bq m-2 d-1	Bq m-2 d-1	Bq m-2 d-1	μg m-2 d-1	μg m-2 d-1	μg m-2 d-1	μg m-2 d-1	μg m-2 d-1	μg m-2 d-1	μg m-2 d-1	μg m-2 d-1	μg m-2 d-1	μg m-2 d-1
Weight	g dry m-2 d-1	-	0.14	0.98	0.96	0.41	0.39	1.00*#	0.96	0.19	0.91	0.92	0.96	0.95#	0.97	0.56
Be-7	Bq g-1 dry	-0.41	-	0.19	0.13	0.80	0.68	0.18#	-0.06	0.77	0.17	0.14	-0.06	-0.02#	-0.00¥	-0.20
K-40	Bq g-1 dry	-0.20	0.12	-	0.93	0.48	0.42	1.00*#	0.91	0.23	0.95	0.92	0.91	0.91#	0.93	0.63
Cs-137	Bq g-1 dry	0.04	-0.30	0.09	-	0.48	0.30	1.00*#	0.97	0.10	0.84	0.90	0.96	0.97#	0.96	0.58
Pb-210	Bq g-1 dry	-0.57	0.78	0.19	-0.01	-	0.59	0.87#	0.23	0.60	0.38	0.41	0.23	0.40#	0.29	0.14
Na	μg g-1dry	-0.28	0.51	0.04	-0.54	0.34	-	0.76#	0.19	0.96	0.39	0.37	0.19	0.62#	0.21	0.03
Mg	μg g-1dry	0.89#	-0.79#	-0.29#	0.42#	-0.75#	-0.58#	-	1.00*#	0.20#	0.98#	1.00*#	1.00*#	0.99#	1.00*#	0.96#
Al	μg g-1dry	0.62	-0.63	0.00¥	0.41	-0.48	-0.70	0.71#	-	-0.02	0.85	0.88	1.00*	0.98#	0.99	0.60
Cl	μg g-1dry	-0.24	0.58	0.10	-0.55	0.37	0.96	-0.65#	-0.66	-	0.22	0.19	-0.02	0.21#	0.01	-0.14
K	μg g-1dry	-0.17	0.01	0.60	-0.05	0.00¥	0.03	-0.29#	-0.03	0.01	-	0.93	0.86	0.85#	0.87	0.71
Ca	μg g-1dry	-0.39	-0.00¥	-0.04	0.16	0.26	-0.10	-0.75#	0.01	-0.14	0.03	-	0.88	0.91#	0.90	0.65
Sc	μg g-1dry	0.71	-0.66	-0.07	0.38	-0.57	-0.68	0.71#	0.98	-0.65	-0.02	-0.09	-	0.98#	0.99	0.61
Tl	μg g-1dry	0.06#	0.12#	0.15#	0.35#	-0.13#	-0.03#	0.25#	0.20#	0.07#	0.03#	0.41#	0.15#	-	0.97#	0.61#
V	μg g-1dry	0.37	-0.38	0.10	0.33	-0.19	-0.73	0.52#	0.87	-0.66	-0.03	0.22	0.80	0.18#	-	0.59
Cr	μg g-1dry	-0.44	-0.06	0.20	0.08	0.27	-0.02	-0.75#	-0.12	-0.12	0.40	0.38	-0.15	0.21#	-0.01	-
Mn	μg g-1dry	0.46	-0.51	0.00¥	0.33	-0.31	-0.62	0.41#	0.89	-0.55	-0.07	0.19	0.85	0.44#	0.87	-0.01
Fe	μg g-1dry	0.13	-0.48	0.06	0.48	-0.14	-0.66	0.31#	0.75	-0.60	0.07	0.24	0.67	0.48#	0.76	0.30
Co	μg g-1dry	0.07	-0.44	0.17	0.38	-0.09	-0.35	0.80#	0.49	-0.43	0.29	0.43	0.44	0.16#	0.46	0.69
Br	μg g-1dry	-0.30	0.52	0.02	-0.55	0.39	0.98	-0.49#	-0.70	0.93	0.02	-0.12	-0.69	-0.07#	-0.73	0.04
Rb	μg g-1dry	0.37	-0.46	0.10	0.43	-0.23	-0.74	0.32#	0.74	-0.70	-0.01	0.20	0.72	-0.09#	0.70	-0.16
Sb	μg g-1dry	-0.57	0.59	-0.15	-0.06	0.73	0.09	-0.72#	-0.39	0.07	-0.23	0.43	-0.49	-0.02#	-0.07	0.31
Cs	μg g-1dry	0.50	-0.55	0.14	0.48	-0.34	-0.71	0.58#	0.87	-0.71	0.20	0.10	0.87	0.03#	0.77	-0.01
La	μg g-1dry	0.54	-0.53	0.07	0.44	-0.35	-0.65	0.55#	0.94	-0.61	0.14	-0.03	0.93	0.15#	0.84	-0.07
Ce	μg g-1dry	0.02	-0.22	0.04	0.42	0.13	-0.26	-0.12#	0.41	-0.25	0.16	0.18	0.36	0.27#	0.42	0.34
Eu	μg g-1dry	0.65	-0.63	-0.05	0.41	-0.51	-0.68	0.67#	0.96	-0.67	0.06	-0.07	0.97	0.14#	0.80	-0.10
Hf	μg g-1dry	0.57	-0.53	0.01	0.35	-0.35	-0.59	0.80#	0.85	-0.58	0.15	-0.11	0.84	0.24#	0.75	0.11
Ta	μg g-1dry	0.17	-0.36	-0.17	0.31	-0.17	-0.52	-0.08#	0.52	-0.47	-0.11	0.46	0.48	0.31#	0.57	-0.15
Th	μg g-1dry	0.64	-0.59	-0.10	0.45	-0.38	-0.66	0.70#	0.91	-0.66	-0.09	-0.19	0.92	0.09#	0.74	-0.06
U	μg g-1dry	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#

Upper part of a diagonal line (-) was based on depositions of radionuclides or stable elements, lower part of a diagonal line (-) was based on concentrations of radionuclides or stable elements in deposition samples

*:Correlation coefficient was not equal to1.00, but it was more than 0.995

¥:Correlation coefficient was not equal to ±0.00, but it was less than ±0.005

#:Number of dataset was small

Radionuclides or Stable elements	Stable elements														
	Mn	Fe	Co	Br	Rb	Sb	Cs	La	Ce	Eu	Hf	Ta	Th	U	
unit	μg m-2 d-1	μg m-2 d-1	μg m-2 d-1	μg m-2 d-1	μg m-2 d-1	μg m-2 d-1	μg m-2 d-1	μg m-2 d-1	μg m-2 d-1	μg m-2 d-1	μg m-2 d-1	μg m-2 d-1	μg m-2 d-1	μg m-2 d-1	
Weight	0.97	0.95	0.96	0.63	0.94	0.74	0.98	0.96	0.94	0.96	0.94	0.96	0.95	#	
Be-7	-0.03	-0.06	-0.04	0.56	0.04	0.41	0.01	-0.03	0.06	-0.06	-0.09	-0.03	-0.05	#	
K-40	0.93	0.92	0.93	0.63	0.94	0.70	0.95	0.93	0.91	0.92	0.89	0.93	0.90	#	
Cs-137	0.96	0.96	0.97	0.59	0.92	0.84	0.97	0.96	0.95	0.97	0.96	0.97	0.97	#	
Pb-210	0.26	0.24	0.29	0.62	0.37	0.66	0.32	0.26	0.40	0.24	0.22	0.29	0.26	#	
Na	0.22	0.18	0.23	0.93	0.26	0.37	0.24	0.21	0.27	0.19	0.18	0.22	0.20	#	
Mg	1.00*#	1.00*#	1.00*#	0.92#	0.99#	0.99#	1.00*#	1.00*#	0.99#	1.00*#	1.00*#	0.99#	1.00*#	#	
Al	1.00*	0.99	0.98	0.47	0.94	0.67	0.99	1.00*	0.94	1.00*	0.99	0.98	0.99	#	
Cl	0.02	-0.02	0.02	0.82	0.07	0.26	0.03	0.00¥	0.09	-0.02	-0.04	0.00¥	-0.01	#	
K	0.88	0.88	0.89	0.56	0.93	0.57	0.91	0.88	0.84	0.86	0.82	0.88	0.81	#	
Ca	0.90	0.89	0.93	0.55	0.96	0.69	0.93	0.90	0.87	0.88	0.84	0.94	0.83	#	
Sc	1.00*	0.99	0.98	0.47	0.94	0.66	0.99	1.00*	0.94	1.00*	0.99	0.98	0.99	#	
Tl	0.98#	0.98#	0.96#	0.85#	0.91#	0.80#	0.97#	0.97#	0.93#	0.99#	0.99#	0.98#	0.99#	#	
V	0.99	0.99	0.98	0.48	0.95	0.69	0.99	0.99	0.96	0.99	0.97	0.98	0.98	#	
Cr	0.62	0.65	0.71	0.18	0.69	0.28	0.64	0.63	0.59	0.60	0.60	0.59	0.56	#	
Mn	-	1.00*	0.98	0.49	0.95	0.66	0.99	1.00*	0.95	0.99	0.98	0.98	0.98	#	
Fe	0.82	-	0.98	0.46	0.95	0.64	0.99	1.00*	0.95	0.99	0.98	0.98	0.98	#	
Co	0.47	0.56	-	0.48	0.96	0.67	0.99	0.98	0.94	0.98	0.96	0.96	0.96	#	
Br	-0.62	-0.60	-0.34	-	0.49	0.57	0.49	0.48	0.51	0.48	0.49	0.51	0.50	#	
Rb	0.66	0.55	0.30	-0.78	-	0.64	0.97	0.96	0.91	0.94	0.90	0.95	0.90	#	
Sb	-0.22	-0.10	0.00¥	0.15	-0.28	-	0.69	0.65	0.67	0.67	0.67	0.74	0.72	#	
Cs	0.71	0.59	0.55	-0.74	0.84	-0.34	-	0.99	0.95	0.99	0.97	0.98	0.97	#	
La	0.84	0.77	0.44	-0.65	0.76	-0.40	0.88	-	0.95	1.00*	0.98	0.98	0.98	#	
Ce	0.40	0.57	0.46	-0.20	0.29	-0.01	0.43	0.52	-	0.94	0.92	0.92	0.93	#	
Eu	0.80	0.67	0.45	-0.68	0.71	-0.41	0.90	0.96	0.46	-	0.99	0.98	0.99	#	
Hf	0.75	0.78	0.47	-0.54	0.55	-0.32	0.73	0.89	0.52	0.88	-	0.97	0.99	#	
Ta	0.53	0.52	0.16	-0.52	0.56	-0.01	0.48	0.48	0.20	0.48	0.41	-	0.97	#	
Th	0.77	0.71	0.45	-0.63	0.57	-0.30	0.83	0.90	0.41	0.96	0.89	0.51	-	#	
U	#	#	#	#	#	#	#	#	#	#	#	#	#	#	

Upper part of a diagonal line (-) was based on depositions of radionuclides or stable elements, lower part of a diagonal line (-) was based on concentrations of radionuclides or stable elements in deposition samples

*:Correlation coefficient was not equal to1.00, but it was more than 0.995

¥:Correlation coefficient was not equal to ±0.00, but it was less than ±0.005

#:Number of dataset was small

Table 18 Correlation coefficient between depositions and/or concentration of radionuclides at Q(height:1.5m) point in Tokai-mura

			Radionuclides (1993.9-2001.3)			
Radionuclides	unit	Weight	Be-7	K-40	Cs-137	Pb-210
unit		g dry m-2 d-1	Bq m-2 d-1	Bq m-2 d-1	Bq m-2 d-1	Bq m-2 d-1
Weight	g dry m-2 d-1	-	0.40	0.94	0.75	0.57
Be-7	Bq g-1 dry	-0.29	-	0.45	0.21	0.85
K-40	Bq g-1 dry	-0.20	0.16	-	0.70	0.59
Cs-137	Bq g-1 dry	0.02	0.06	0.08	-	0.41
Pb-210	Bq g-1 dry	-0.44	0.80	0.29	0.11	-

Upper part of a diagonal line (-) was based on depositions of radionuclides in deposition samples
Lower part of a diagonal line (-) was based on concentrations of radionuclides in deposition samples

Table 19 Correlation coefficient between depositions and/or concentration of radionuclides at P(height:4m) point in Tokai-mura

			Radionuclides (1993.9-2001.3)			
Radionuclides	unit	Weight	Be-7	K-40	Cs-137	Pb-210
unit		g dry m-2 d-1	Bq m-2 d-1	Bq m-2 d-1	Bq m-2 d-1	Bq m-2 d-1
Weight	g dry m-2 d-1	-	0.37	0.88	0.81	0.56
Be-7	Bq g-1 dry	-0.29	-	0.39	0.31	0.78
K-40	Bq g-1 dry	-0.18	0.00¥	-	0.83	0.60
Cs-137	Bq g-1 dry	0.24	-0.01	0.43	-	0.47
Pb-210	Bq g-1 dry	-0.39	0.78	0.08	0.02	-

Upper part of a diagonal line (-) was based on depositions of radionuclides in deposition samples
Lower part of a diagonal line (-) was based on concentrations of radionuclides in deposition samples
¥:Correlation coefficient was not equal to 0.00, but it was less than 0.005

Table 20 Correlation coefficient between depositions and/or concentration of radionuclides at R(height:10m) point in Tokai-mura

			Radionuciides (1993.9-2001.3)			
Radionuclides	unit	Weight	Be-7	K-40	Cs-137	Pb-210
unit		g dry m-2 d-1	Bq m-2 d-1	Bq m-2 d-1	Bq m-2 d-1	Bq m-2 d-1
Weight	g dry m-2 d-1	-	0.22	0.96	0.93	0.42
Be-7	Bq g-1 dry	-0.38	-	0.21	0.17	0.82
K-40	Bq g-1 dry	-0.22	0.03	-	0.91	0.42
Cs-137	Bq g-1 dry	0.12	-0.22	-0.09	-	0.42
Pb-210	Bq g-1 dry	-0.48	0.83	0.13	-0.08	-

Upper part of a diagonal line (-) was based on depositions of radionuclides in deposition samples

Lower part of a diagonal line (-) was based on concentrations of radionuclides in deposition samples

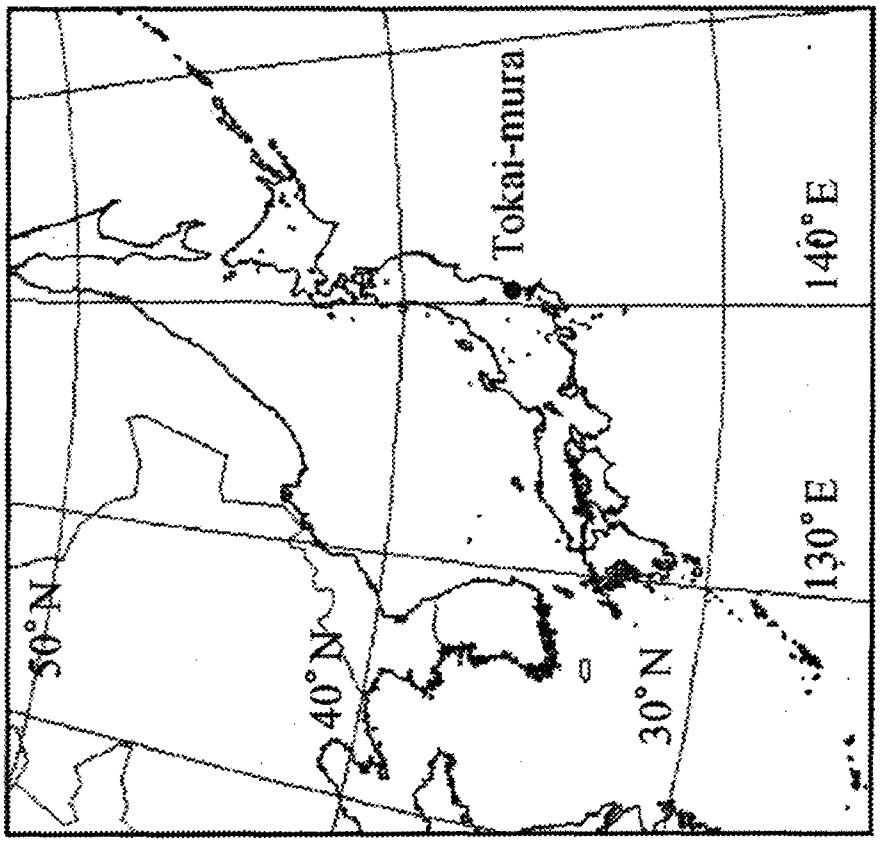

Fig.1 Location of deposition sampling (Tokai-mura).

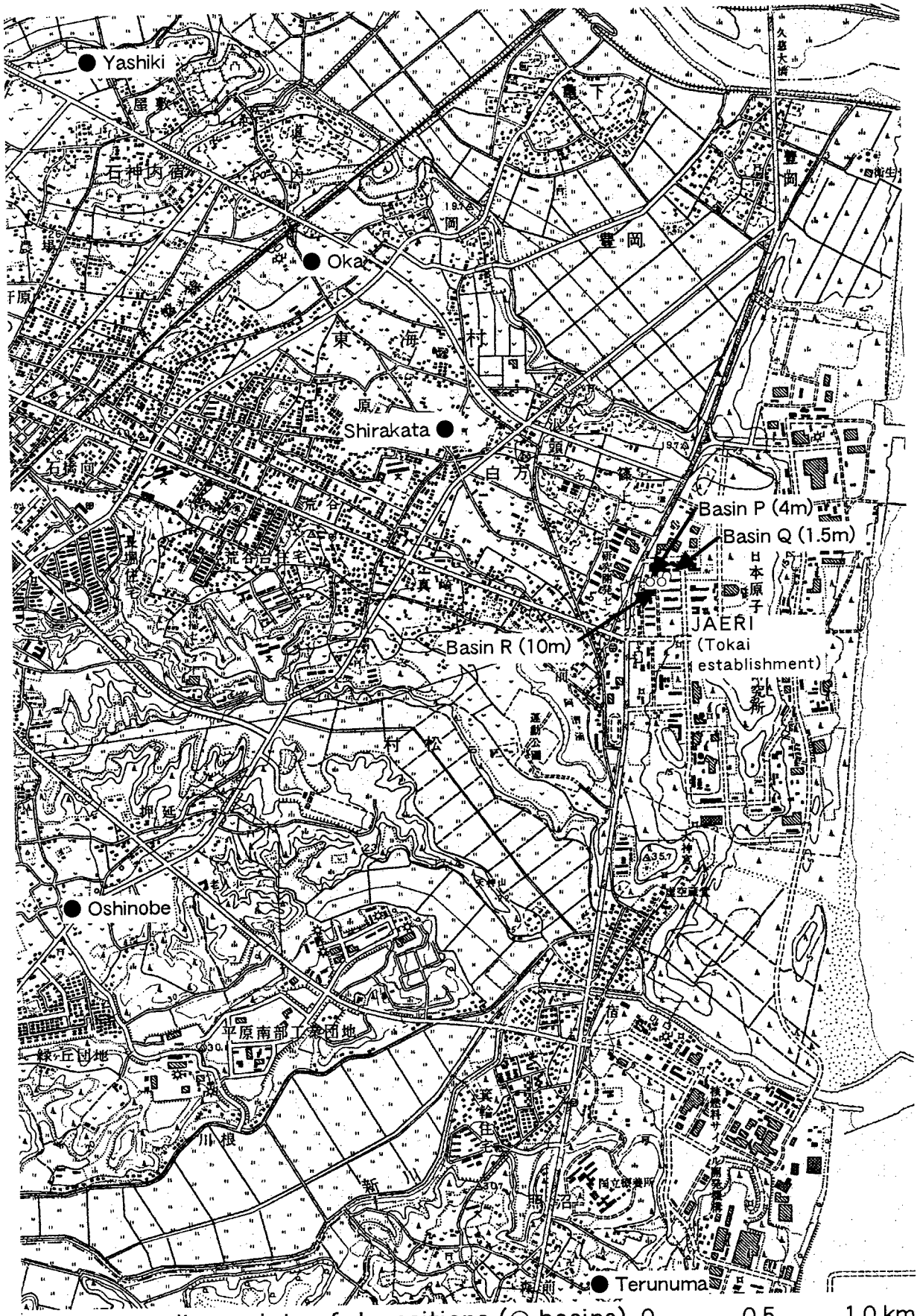

Fig. 2 Sampling points of depositions (○,basins) and soil (●) samples in Tokai-mura

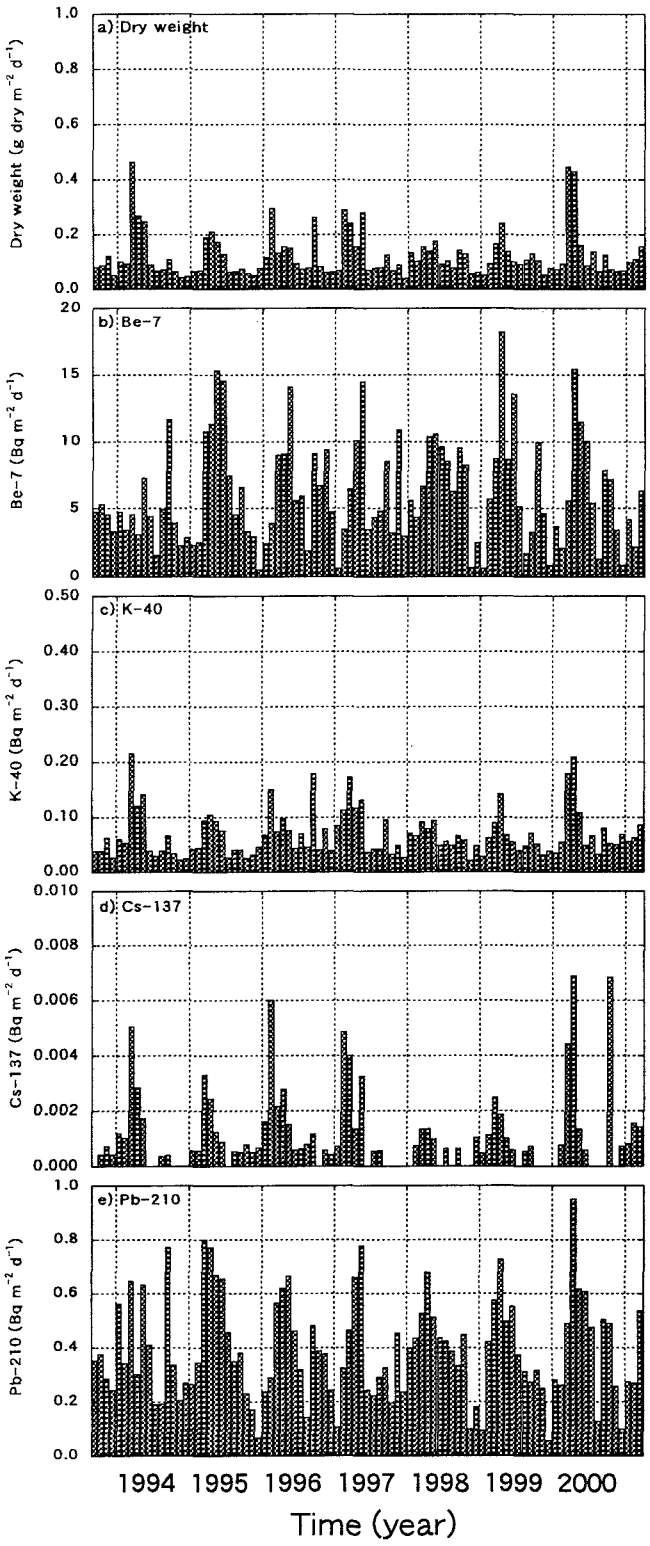

Fig. 3 Time variations of dry weight and depositions of radionuclides at Tokai-mura (1.5m)

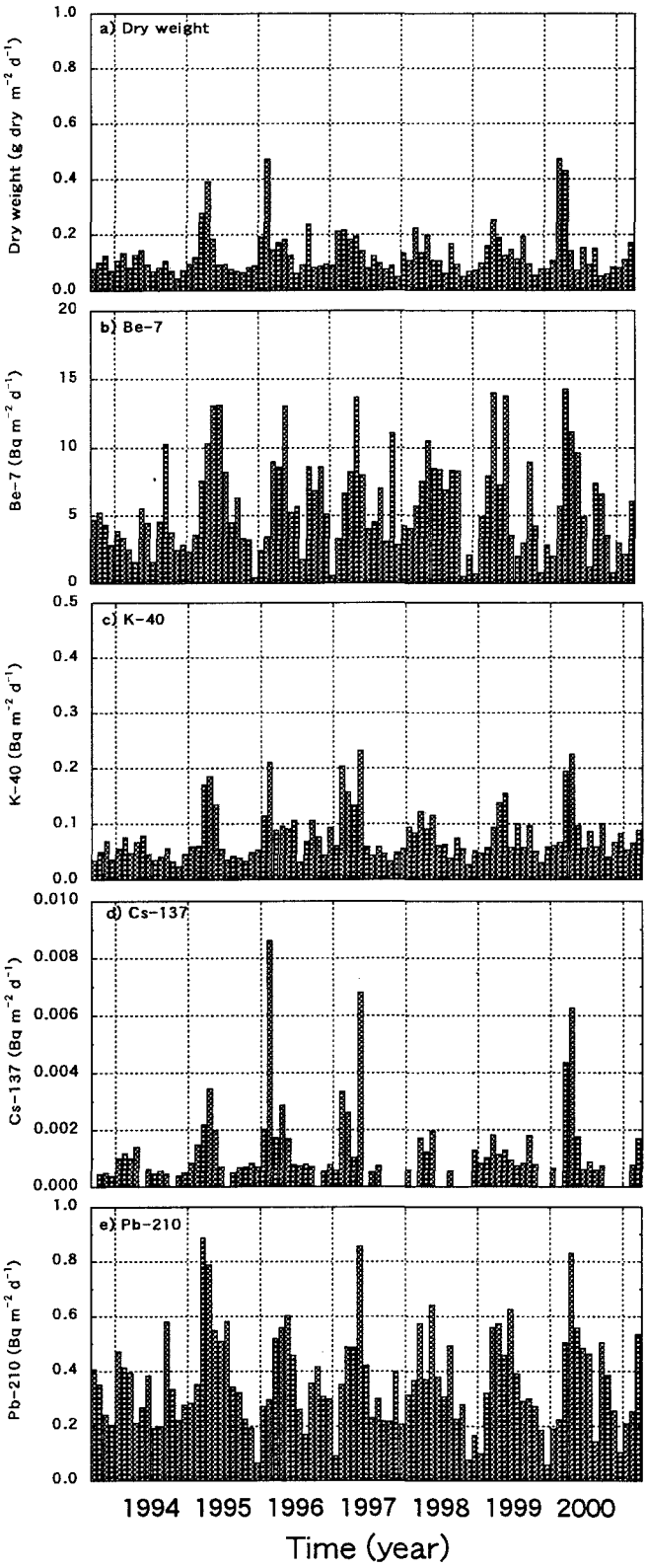

Fig. 4 Time variations of dry weight and depositions of radionuclides at Tokai-mura (4m)

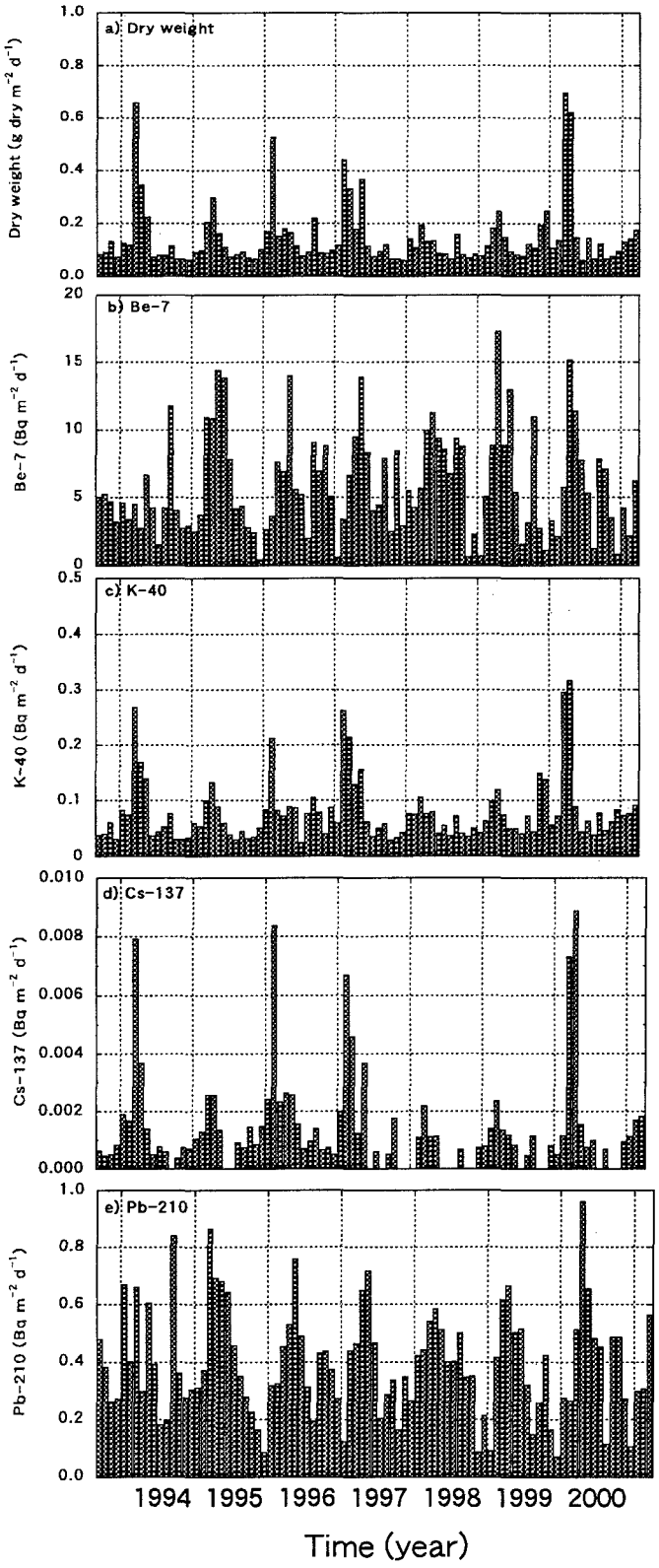

Fig. 5 Time variations of dry weight and depositions of radionuclides at Tokai-mura (10m)

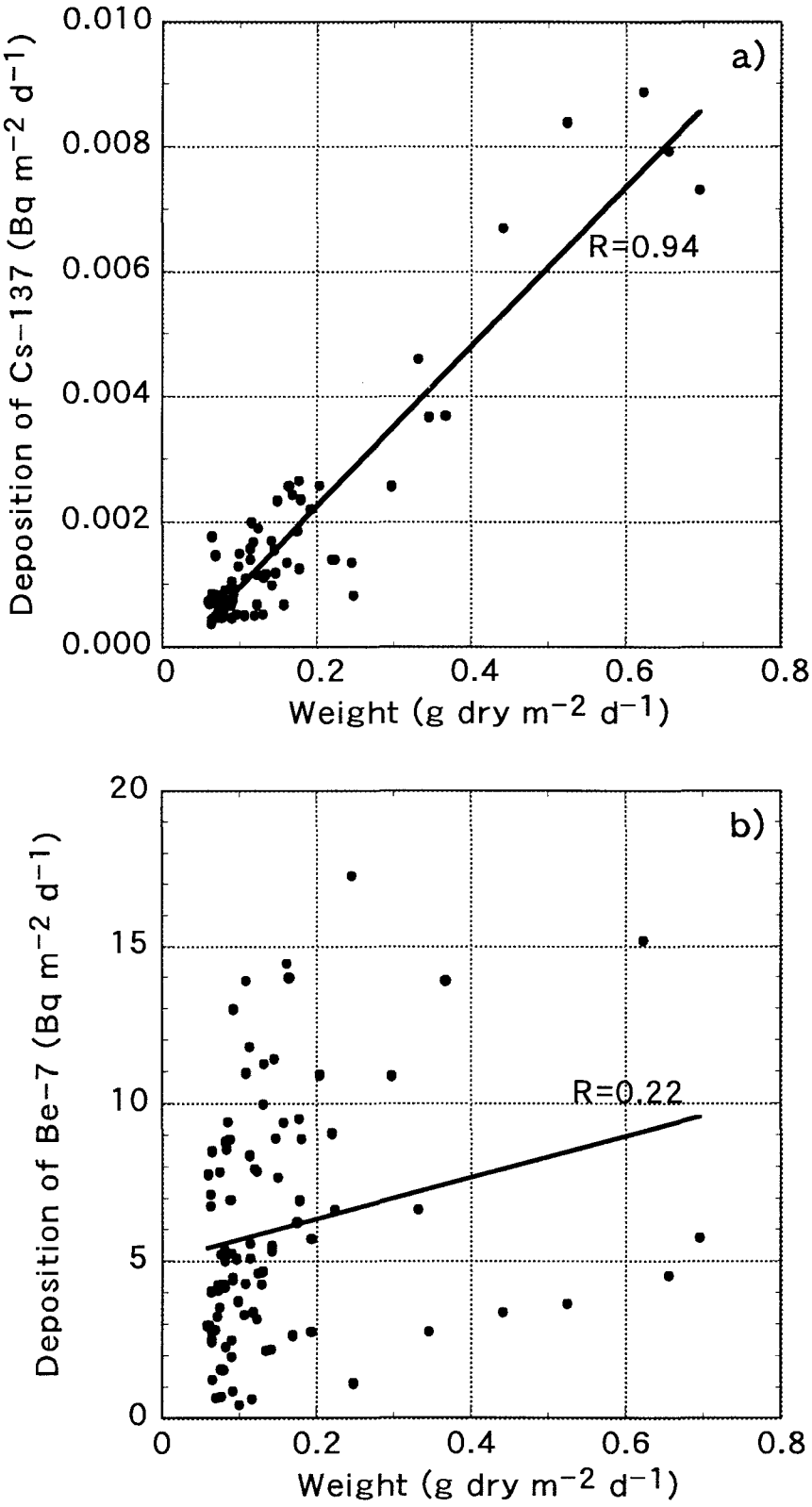

Fig.6 Correlation of dry weight to deposition of a) ^{137}Cs or b) ^{7}Be at point R

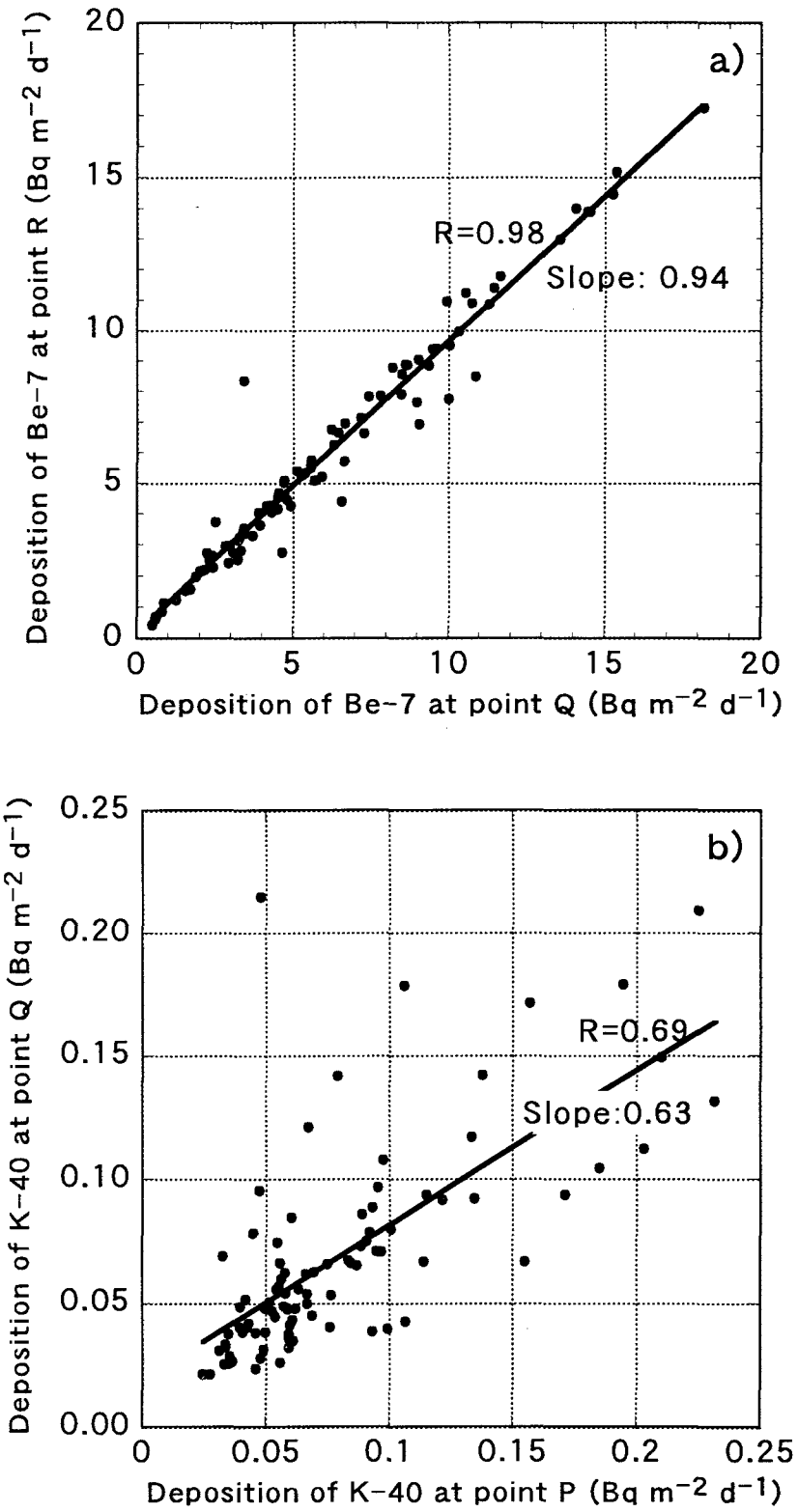

Fig.7 Correlation of deposition of a) ^{7}Be and b) ^{40}K among three sampling points

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国際単位系（SI）と換算表

表1　SI基本単位および補助単位

量	名称	記号
長さ	メートル	m
質量	キログラム	kg
時間	秒	s
電流	アンペア	A
熱力学温度	ケルビン	K
物質量	モル	mol
光度	カンデラ	cd
平面角	ラジアン	rad
立体角	ステラジアン	sr

表2　SIと併用される単位

名称	記号
分，時，日	min，h，d
度，分，秒	°，′，″
リットル	l，L
トン	t
電子ボルト	eV
原子質量単位	u

1 eV=1.60218×10^{-19}J

1 u=1.66054×10^{-27}kg

表3　固有の名称をもつSI組立単位

量	名称	記号	他のSI単位による表現
周波数	ヘルツ	Hz	s^{-1}
力	ニュートン	N	m·kg/s^2
圧力，応力	パスカル	Pa	N/m^2
エネルギー,仕事,熱量	ジュール	J	N·m
工率，放射束	ワット	W	J/s
電気量，電荷	クーロン	C	A·s
電位;電圧,起電力	ボルト	V	W/A
静電容量	ファラド	F	C/V
電気抵抗	オーム	Ω	V/A
コンダクタンス	ジーメンス	S	A/V
磁束	ウェーバ	Wb	V·s
磁束密度	テスラ	T	Wb/m^2
インダクタンス	ヘンリー	H	Wb/A
セルシウス温度	セルシウス度	℃	
光束	ルーメン	lm	cd·sr
照度	ルクス	lx	lm/m^2
放射能	ベクレル	Bq	s^{-1}
吸収線量	グレイ	Gy	J/kg
線量等量	シーベルト	Sv	J/kg

表4　SIと共に暫定的に維持される単位

名称	記号
オングストローム	Å
バーン	b
バール	bar
ガル	Gal
キュリー	Ci
レントゲン	R
ラド	rad
レム	rem

1 Å=0.1nm=10^{-10}m

1 b=100fm^2=10^{-28}m^2

1 bar=0.1MPa=10^5Pa

1 Gal=1cm/s^2=10^{-2}m/s^2

1 Ci=3.7×10^{10}Bq

1 R=2.58×10^{-4}C/kg

1 rad=1cGy=10^{-2}Gy

1 rem=1cSv=10^{-2}Sv

表5　SI接頭語

倍数	接頭語	記号
10^{18}	エクサ	E
10^{15}	ペタ	P
10^{12}	テラ	T
10^{9}	ギガ	G
10^{6}	メガ	M
10^{3}	キロ	k
10^{2}	ヘクト	h
10^{1}	デカ	da
10^{-1}	デシ	d
10^{-2}	センチ	c
10^{-3}	ミリ	m
10^{-6}	マイクロ	μ
10^{-9}	ナノ	n
10^{-12}	ピコ	p
10^{-15}	フェムト	f
10^{-18}	アト	a

（注）

1．表1－5は「国際単位系」第5版，国際度量衡局 1985年刊行による。ただし,1 eVおよび1 uの値はCODATAの1986年推奨値によった。

2．表4には海里，ノット，アール，ヘクタールも含まれているが日常の単位なのでここでは省略した。

3．barは，JISでは流体の圧力を表わす場合に限り表2のカテゴリーに分類されている。

4．EC閣僚理事会指令ではbar，barnおよび「血圧の単位」mmHgを表2のカテゴリーに入れている。

換　算　表

力	N(=10^5dyn)	kgf	lbf
	1	0.101972	0.224809
	9.80665	1	2.20462
	4.44822	0.453592	1

粘度　1 Pa·s(N·s/m^2)=10 P(ポアズ)(g/(cm·s))

動粘度　1m^2/s=10^4St(ストークス)(cm^2/s)

圧力	MPa(=10bar)	kgf/cm^2	atm	mmHg(Torr)	lbf/in^2(psi)
	1	10.1972	9.86923	7.50062×10^3	145.038
	0.0980665	1	0.967841	735.559	14.2233
	0.101325	1.03323	1	760	14.6959
	1.33322×10^{-4}	1.35951×10^{-3}	1.31579×10^{-3}	1	1.93368×10^{-2}
	6.89476×10^{-3}	7.03070×10^{-2}	6.80460×10^{-2}	51.7149	1

エネルギー・仕事・熱量	J(=10^7 erg)	kgf·m	kW·h	cal(計量法)	Btu	ft·lbf	eV
	1	0.101972	2.77778×10^{-7}	0.238889	9.47813×10^{-4}	0.737562	6.24150×10^{18}
	9.80665	1	2.72407×10^{-6}	2.34270	9.29487×10^{-3}	7.23301	6.12082×10^{19}
	3.6×10^6	3.67098×10^5	1	8.59999×10^5	3412.13	2.65522×10^6	2.24694×10^{25}
	4.18605	0.426858	1.16279×10^{-6}	1	3.96759×10^{-3}	3.08747	2.61272×10^{19}
	1055.06	107.586	2.93072×10^{-4}	252.042	1	778.172	6.58515×10^{21}
	1.35582	0.138255	3.76616×10^{-7}	0.323890	1.28506×10^{-3}	1	8.46233×10^{18}
	1.60218×10^{-19}	1.63377×10^{-20}	4.45050×10^{-26}	3.82743×10^{-20}	1.51857×10^{-22}	1.18171×10^{-19}	1

1 cal= 4.18605J（計量法）

= 4.184J（熱化学）

= 4.1855J（15℃）

= 4.1868J（国際蒸気表）

仕事率　1 PS(仏馬力)

= 75 kgf·m/s

= 735.499W

放射能	Bq	Ci
	1	2.70270×10^{-11}
	3.7×10^{10}	1

吸収線量	Gy	rad
	1	100
	0.01	1

照射線量	C/kg	R
	1	3876
	2.58×10^{-4}	1

線量当量	Sv	rem
	1	100
	0.01	1

（86年12月26日現在）

Deposition of Radionuclides and Stable Elements in Tokai-Mura