APPENDIX I

Table 1

Exempt Quantities of Radioisotopes

	Column 1 Unsealed Sources (Microcuries)	Column 2 Sealed Sources (Microcuries)
Actinium 227	0.1	1
Americium 241	0.1	1
Antimony 124	1	10
Arsenic 73	10	100
74	10	100
76	10	100
77	10	100
Astatine 211	0.1	10
Barium Lanthanum 140	1	10
	100	1000
Beryllium 7 Durania des		+
Bromine 82	10	100
Cadmium-Silver 109	10	100
Calcium 45	10	100
Carbon 14	1000	10
	1000	10000
Cerium Praseodymium 144	1	10
Cesium-	1	10
Barium 137	10	100
Chlorine 36	10	100
Chromium 51	100	1000
Cobalt 58	10	100
60	10	100
Copper 64	10	100
Curium 242	0.1	100
Europium 154	1	10
Fluorine 18	100	1000
Gallium 72	100	100
Germanium 71		
Gold 196	100	1000
Gold 196 198	10 10	100 100
199	10	100
Holmium 166	10	100
Hydrogen ⁴		
(Tritium)	1000	10000
Indium 114	1	10
Iodine 131	1	10
132	10	100
Iridium 190	10	100
192	10	100
Iron 55	10	100
59	1	10
Krypton 85	1000	10000
Lanthanum 140	10	100
Lead 203	10	100
210 + dtrs	0.1	1
Lutecium 177	10	100
Manganese 52 54	10 10	100 100
56	10	100
Molybdenium 99	10	100
Nickel 59	10	100
63	10	100
Niobium 95	10	100

Palladium- Silver 109	10	100
Palladium-	10	100
Rhodium 103 Phosphorus 32	10 10	100
Platinum 191	10	100 100
193	10	100
Plutonium 239	0.1	1
Polonium 210	0.1	1
Potassium 42	10	100
 Praseodymium 143 	10	100
Promethium 147	10	100
Radium 226	0.1	1
Rhenium 183	10	100
186	10	100
Rhodium 105	10	100
Rubidium 86	10	100
Ruthenium 103	10	100
Ruthenium- Rhodium 106	1	10
Samarium 151	1	10
153	10	100
Scandium 46	10	100
47 48	10 10	100 100
Silver 105	10	100
110	10	100
111	10	100
Sodium 22	10	100
24 Strontium 89	10 1	100 10
Strontium-	ľ	10
Yttrium 90	0.1	1.0
Sulfur 35	10	100
Tantalum 182	10	100
Technetium 96 99	1	10
59 Tellurium 127	1 10	10 100
129	10	100
Thallium 200	10	100
201	100	1000
202 204	10	100
204 Thorium nat.	10 100	100 1000
Thorium nac.	100	1000
Protoactinium 234	1	10
Thulium		
Ytterbium 170	1	10
Tin 113	10	100
Tungsten 181 185	10 10	100 100
Uranium 233	0.1	105
natural	1000	10000
Vanadium 48	10	100
Yttrium 91	1	10
Zinc 65	10	100
Zirconium		
Niobium 95	10	100

CSR

		Table 2			Cesium	Cs 131	s	1 × 10°	2×10^{-1}	4 × 10 ^{.†}	Indium	In 113m	S 8×10 ⁻⁶	1 × 10 ⁻¹	3×10 ⁻¹
Con	centrat	ions in Wa	ter and	Air	(55)	Cs 134m	l S	$3 imes 10^{-6}$ $4 imes 10^{-5}$	9×10^{-4} 6×10^{-3}	1×10^{-1} 1×10^{-6}	(49)	ln 114m	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	1×10^{-3} 2×10^{-5}	2×10^{-7} 4×10^{-9}
		atural Bac				Cs 134	I S	6 × 10** 4 × 10** 1 × 10**	1×10^{-3} 9×10^{-8} 4×10^{-5}	2 × 10 ⁻⁷ 1 × 10 ⁻⁹ 4 × 10 ⁻¹⁰		In 115m	$\begin{array}{ccc} I & 2 \times 10^{-6} \\ S & 2 \times 10^{-6} \\ I & 2 \times 10^{-6} \end{array}$	2×10^{-5} 4×10^{-4} 4×10^{-4}	$7 imes 10^{-50} \ 8 imes 10^{-5} \ 6 imes 10^{-2}$
Element		Column 1	Column 2	Column 3		Cs 135	S	5 × 10* 5 × 10* 9 × 10*	1 × 10 ⁻⁴ 2 × 10 ⁻⁴	2×10 ⁻⁵ 3×10 ⁻⁶		In 115	$\begin{array}{ccc} I & 2 \times 10^{*6} \\ S & 2 \times 10^{*7} \\ I & 3 \times 10^{*8} \end{array}$	9 × 10 ⁻⁵ 9 × 10 ⁻⁵	9×10^{-9} 1×10^{-9}
(atomic number)	Isotope'	Air (uc/ml)	Water (uc/ml)	Air (uc/ml)		Cs 136	s I	4 × 10 ⁻¹ 2 × 10 ⁻¹	9×10^{15} 6×10^{15}	1 × 10 ⁻⁴ 6 × 10 ⁻⁹	Lodine (53)	I 126	S 8×10 ⁻⁹ I 3×10 ⁻⁷	2×10^{-6} 9×10^{-5}	3 × 10°™ 1 × 10™
Actinium (89)	Ac 227	\$ 2×10 ⁻¹² 1 3×10 ⁻¹¹	2 × 10* 3 × 10*	8×10 ⁻¹⁴ 9×10 ⁻¹³		Cs 137	S 1	$rac{6 imes10^{-8}}{1 imes10^{-8}}$	$2 imes10^{r_3}$ $4 imes10^{r_3}$	$2 imes 10^{-9}$ $5 imes 10^{-10}$	(007	I 129	$\begin{array}{ccc} S & 2 \times 10^{19} \\ I & 7 \times 10^{16} \end{array}$	4×10^{-7} 2×10^{-4}	$rac{6 imes 10^{-11}}{2 imes 10^{-9}}$
(00)	Ac 228 [°]	$\begin{array}{ccc} S & 8 \times 10^{-8} \\ 1 & 2 \times 10^{-8} \end{array}$	9×10 ⁻⁵ 9×10 ⁻⁵	3×10 ⁻⁹ 6×10 ⁻¹⁶	Chlorine (17)	Cl 36	S 1	4×10^{-5} 2×10^{-6}	$8 imes 10^{-5} \ 6 imes 10^{-5}$	1 × 10** 8 × 10**		I 131	S 9×10 ⁻⁹ I 3×10 ⁻⁵	2×10^{-6} 6×10^{-3}	$3 imes10^{+16}$ $1 imes10^{+8}$
Americium (95)	Am 241	$\begin{array}{ccc} S & 6 \times 10^{\text{-12}} \\ I & 1 \times 10^{\text{-10}} \end{array}$	4 × 10 ⁺⁶ 2 × 10 ⁺⁴	$2 imes 10^{-13} \\ 4 imes 10^{-12}$	Chuomium	Cl 38 Cr 51	S 1 S	3×10^{-6} 2×10^{-6} 1×10^{-5}	4 × 10* 4 × 10* 2 × 10*	9 × 10⊰ 7 × 10⊰ 4 × 10⁻¹		1132	$\frac{S}{I} = \frac{2 \times 10^{+7}}{9 \times 10^{+7}}$	6 × 10 ⁻⁵ 2 × 10 ⁻⁴	8 × 10* 3 × 10*
a	Am 243	$\begin{array}{ccc} S & 6 \times 10^{-12} \\ I & 1 \times 10^{-10} \\ \end{array}$	4 × 10 ⁻⁶ 3 × 10 ⁻⁵	2×10^{-13} 4×10^{-12}	Chromium (24) Cobalt	Co 57	j S	2×10^{-6} 3×10^{-6}	2×10 ⁻¹ 5×10 ⁻¹	8×10* 1×10*		1 133	$\frac{S}{I} = \frac{3 \times 10^{-5}}{2 \times 10^{-5}}$	$7 imes 10^{-6}$ $4 imes 10^{-5}$	1×10^{-9} 7×10^{-9}
Antimony (51)	Sb 122 Sb 124	$\begin{array}{ccc} S & 2 \times 10^{17} \\ I & 1 \times 10^{17} \\ S & 2 \times 10^{17} \end{array}$	3×10^{-5} 3×10^{-5} 2×10^{-5}	6 × 10 ⁻⁹ 5 × 10 ⁻⁹ 5 × 10 ⁻⁹	(27)	Co 58m	ĩ	2×10^{-7} 2×10^{-5}	4×10 ⁻⁴ 3×10 ⁻³	6 × 10*9 6 × 10*		1 134	$\begin{array}{ccc} S & 5 \times 10^{17} \\ I & 3 \times 10^{16} \end{array}$	1 × 10 ⁻⁴ 6 × 10 ⁻⁴	2×10^{-8} 1×10^{-7}
	Sb 124	$1 2 \times 10^{-8}$ S 5×10^{-7}	2 × 10 ⁻⁵ 1 × 10 ⁻⁵	7×10^{-10} 2×10^{-10}		Co 58	1 S	$9 imes 10^{-6} \\ 8 imes 10^{-7}$	$\begin{array}{c} 2 imes 10^{\circ 3} \\ 1 imes 10^{\circ 4} \end{array}$	3 × 10 ⁻⁷ 3 × 10 ⁻⁸		I 135	$\begin{array}{ccc} S & 1 \times 10^{17} \\ I & 4 \times 10^{17} \\ \end{array}$	2×10^{-5} 7×10^{-5}	4×10^{-9} 1×10^{-8}
Argon?	A 37	I 3×10* Sub 6×10*	1 × 10**	9×10-10 1×10-4		Co 60	I S	$5 imes10^{-8}\ 3 imes10^{-7}$	9×10^{15} 5×10^{15}	2×10^{-9} 1×10^{-8}	Iradium (77)	lr 190	$\begin{array}{ccc} S & 1 \times 10^{-6} \\ I & 4 \times 10^{-7} \\ S & 1 \times 10^{-7} \end{array}$	2×10^{-4} 2×10^{-4}	4×10^{-6} 1×10^{-8} 4×10^{-9}
(18) Arsenic	A 41 As 73	Sub 2 × 10 ⁻⁶ S 2 × 10 ⁻⁶	5 × 10 •	4 × 10* 7 × 10*	Copper	Cu 64	I S	9×10^{-9} 2×10^{-6} 1×10^{-6}	3×10^{-6} 3×10^{-4} 2×10^{-4}	3 × 10 ⁻¹⁰ 7 × 10 ⁻⁸ 4 × 10 ⁻⁸		lr 192 Ir 194	$\begin{array}{ccc} {\bf S} & {\bf 1} \times 10^{7} \\ {\bf I} & {\bf 3} \times 10^{9} \\ {\bf S} & {\bf 2} \times 10^{7} \end{array}$	$1 imes 10^{-5}$ $4 imes 10^{-5}$ $3 imes 10^{-5}$	4 × 10" 9 × 10" 8 × 10"
(33)	As 74	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	5 × 10** 5 × 10**	1×10^{-6} 1×10^{-6}	(29) Curium (96)	Cm 242	s 1	1 × 10 ⁻¹⁰ 2 × 10 ⁻¹⁰	2×10^{-5} 2×10^{-5} 3×10^{-5}	4 × 10 ⁻¹² 6 × 10 ⁻¹²	[ron	Fe 55	$\begin{array}{ccc} S & 2 \times 10^{-7} \\ I & 2 \times 10^{-7} \\ S & 9 \times 10^{-7} \end{array}$	3×10 ⁻⁵ 8×10 ⁻⁴	5 × 10 ⁻⁹ 3 × 10 ⁻⁹
	As 76	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	5×10^{-5} 2×10^{-5} 2×10^{-5}	4 × 10 ⁻⁹ 4 × 10 ⁻⁹ 3 × 10 ⁻⁹	(00)	Cm 243	ŝ	6×10-12 1×10-10	5 × 10 ⁻⁶ 2 × 10 ⁻⁵	2×10 ⁻¹³ 3×10 ⁻¹²	(26)	Fe 39	I 1×10 ⁻⁶ S 1×10 ⁻⁷	2×10 ⁻³ 6×10 ⁻⁵	3×10* 5×10*
	A s 77		8 × 10 ⁻⁵ 8 × 10 ⁻⁵	2×10* 1×10*		Cm 244	S I	9×10^{-13} 1×10^{-10}	$7 imes 10^{-6} \\ 3 imes 10^{-5}$	3 × 10 ⁻¹³ 3 × 10 ⁻¹²	Krypton ²	Kr 85m	I 5×10 ⁻⁶ Sub 6×10 ⁻⁶	5×10-3	2 × 10 ^{.9} 1 × 10 ^{.4}
Astatine (85)	At 211	S 7×10 ⁻⁹ I 3×10 ⁻⁶	$2 imes 10^{-6} \\ 7 imes 10^{-5}$	$2 imes 10^{-10} \ 1 imes 10^{-9}$		Cm 245	\$ 1	5×10^{-12} 1×10^{-10}	4×10^{-6} 3×10^{-5}	2 × 10 ⁻¹³ 4 × 10 ⁻¹²	(36)	Kr 85 Kr 87	Sub 1 × 10 ⁻⁵ Sub 1 × 10 ⁻⁶	_	$3 imes10^{-7}$ $2 imes10^{-8}$
Barium (56)	Ba 131	$\begin{array}{ccc} \$ & 1 \times 10^{-6} \\ I & 4 \times 10^{-7} \\ 2 & 4 \times 10^{-7} \end{array}$	2 × 10* 2 × 10*	4×10* 1×10*	Dysprosium	Cm 246	S I S	5×10^{-12} 1×10^{-10} 3×10^{-6}	$4 imes 10^{-6} \ 3 imes 10^{-5} \ 4 imes 10^{-4}$	2 × 10 ⁻¹³ 4 × 10 ⁻¹² 9 × 10 ⁻⁸	Lanthanum (57)		S 2×10 ⁻⁷ l 1×10 ⁻⁷	$2 \times 10^{\pm}$ $2 \times 10^{\pm}$	$5 imes 10^{-9} \ 4 imes 10^{-9}$
Berkelium	Ba 140 Bk 249	$\begin{array}{ccc} S & 1 \times 10^{-7} \\ I & 4 \times 10^{-6} \\ S & 9 \times 10^{-10} \end{array}$	3×10* 2×10* 6×10*	4 × 10 ⁻⁹ 1 × 10 ⁻⁹ 3 × 10 ⁻¹	(66)	Dy 166	Ĭ S	2×10^{-6} 2×10^{-7}	4 × 10* 4 × 10*	7 × 10 ⁻⁸ 8 × 10 ⁻⁹	Lead (82)	Pb 203	$\begin{array}{ccc} S & 3 \times 10^{-6} \\ I & 2 \times 10^{-6} \\ \end{array}$	4×10^{-4} 4×10^{-4}	9×10^{-6} 6×10^{-9}
(97) Beryllium	Be 7	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	6 × 10 ⁻⁴ 2 × 10 ⁻³	4×10 ⁻⁹ 2×10 ⁻⁷	Erbium	Er 169	I S	$\begin{array}{c} 2 imes 10^{.7} \\ 6 imes 10^{.7} \end{array}$	$4 imes 10^{-5}$ $9 imes 10^{-5}$	$7 imes 10^{-9}$ $2 imes 10^{-6}$		Pb 210 Pb 212	$\begin{array}{ccc} S & 1 \times 10^{-10} \\ I & 2 \times 10^{-10} \\ S & 2 \times 10^{-8} \end{array}$	1×10^{-7} 2×10^{-4} 2×10^{-5}	$4 imes 10^{-12} \\ 8 imes 10^{-12} \\ 6 imes 10^{-10}$
(4) Bismuth	Bi 206	$\begin{array}{ccc} I & 1 \times 10^{-6} \\ S & 2 \times 10^{-7} \end{array}$	2×10^{-3} 4×10^{-5}	4 × 10 ⁻⁶ 6 × 10 ⁻⁹	(68)	Er 171	I S	4 × 10 ⁻⁷ 7 × 10 ⁻⁷ 6 × 10 ⁻⁷	9 × 10 ⁻⁵ 1 × 10 ⁻⁵	$1 imes 10^{-8} \\ 2 imes 10^{-8} \\ 2 imes 10^{-8}$	Lutecium	Lu 177	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	2×10^{-5} 1×10^{-9}	7 × 10 ⁻¹⁰ 2 × 10 ⁻⁸
(83)	Bi 207	$ \begin{array}{ccc} I & 1 \times 10^{-7} \\ S & 2 \times 10^{-7} \\ I & 1 \times 10^{-8} \end{array} $	4 × 10 ⁻⁵ 6 × 10 ⁻⁵ 6 × 10 ⁻⁵	5×10^{-9} 6×10^{-9} 5×10^{-10}	Europium (63)	Eu 152 (TV/2=	ŝ	4 × 10*	1 × 10* 6 × 10*	1 × 10 ⁻⁸	(71)	Mn 52	I 5×10 ⁻⁷ S 2×10 ⁻⁷	$1 imes 10^{-4}$ $3 imes 10^{-5}$	$2 imes 10^{-8}$ $7 imes 10^{-9}$
	Bi 210	S 6×10 ⁻⁹ I 6×10 ⁻⁹	4×10 ⁻⁵ 4×10 ⁻⁵	2×10^{-10} 2×10^{-10}	(00)	9.2 hrs) Eu 152	l S	$3 imes 10^{-7} \ 1 imes 10^{-8}$	6 × 10 ⁻³ 8 × 10-5	1 × 10°8 4 × 10°10	(25)	Mn 54		3×105 1×104	$5 imes 10^{-9}$ $1 imes 10^{-8}$
	Bi 212	S 1×10 ⁻⁷ I 2×10 ⁻⁷	4 × 10⁴ 4 × 10⁴	3 × 10*9 7 × 10*9		(TV/2= 13 yrs)	I	2×10*	8×10 ⁻⁵	6×10.10		Mn 56	I 4×10-8 S 8×10-7	1 × 10 ⁻⁴ 1 × 10 ⁻⁴	1 × 10 ⁻⁹ 3 × 10 ⁻⁸
Bromine (35)	Br 82	S 1×10 ⁻⁶ I 2×10 ⁻⁷	3×10 ⁻⁴ 4×10 ⁻⁵	4 × 10 ⁻⁸ 6 × 10 ⁻⁹		Eu 154 Eu 155	\$ [S	$4 imes 10^{-9} \\ 7 imes 10^{-9} \\ 9 imes 10^{-8}$	$2 imes 10^{-5}$ $2 imes 10^{-5}$ $2 imes 10^{-4}$	1×10^{-10} 2×10^{-10} 3×10^{-9}	Mercury	Hg 197m		1 × 10 ⁻⁴ 2 × 10 ⁻⁴ 2 × 10 ⁻⁴	$2 imes 10^{-8} \ 3 imes 10^{-6} \ 3 imes 10^{-8} \ 3 imes 10^{-8}$
Cadmium (48)	Cd 109 Cd 115m	S 5×10** 1 7×10** S 4×10**	2×10^{-4} 2×10^{-4} 3×10^{-5}	2×10*9 3×10*9 1×10*9	Fluorine	F 18	I S	7 × 10 ⁻⁸ 5 × 10 ⁻⁶	2 × 10 ⁻⁴ 2 × 10 ⁻⁴ 8 × 10 ⁻⁴	3×10 ⁻⁹ 2×10 ⁻⁷	(80)	Hg 197	I 8×10 ⁻⁷ S 1×10 ⁻⁶ I 3×10 ⁻⁶	2 × 10 ⁻⁴ 3 × 10 ⁻⁴ 5 × 10 ⁻⁴	4 × 10* 4 × 10* 9 × 10*
	Cd 115	$I = 4 \times 10^{-8}$ S = 2 × 10 ⁻⁷	3×10 ⁻⁵ 3×10 ⁻⁵	1×10 ⁻⁹ 8×10 ⁻⁹	(9) Gadolínium		ĩ	3×10* 2×10*	$5 imes10^{-4}$ $2 imes10^{-4}$	9 × 10* 8 × 10*		Hg 203	S 7×10 ⁻⁸ I 1×10 ⁻⁷	2×10 ⁻⁵ 1×10 ⁻⁴	2 × 10 ⁻⁹ 4 × 10 ⁻⁹
Calcium	Ca 45	$\begin{array}{ccc} 1 & 2 \times 10^{-7} \\ S & 3 \times 10^{-8} \end{array}$	$9 imes 10^{-6}$	6 × 10 ⁻⁹ 1 × 10 ⁻⁹	(64)	Gd 159	I S	9 × 10* 5 × 10*	2×10 ⁻⁴ 8×10 ⁻⁵	3×10^{-9} 2×10^{-8}	Molybdenum (42)	Mo 99	$\begin{array}{llllllllllllllllllllllllllllllllllll$	$2 imes10^{-4}$ $4 imes10^{-5}$	${3 imes 10^{-8}}\over {7 imes 10^{-9}}$
(20)	Ca 47	$ \begin{array}{ccc} I & 1 \times 10^{-7} \\ S & 2 \times 10^{-7} \\ I & 2 \times 10^{-7} \end{array} $	2 × 10 ⁻⁴ 5 × 10 ⁻⁵ 3 × 10 ⁻⁵	4 × 10 ⁻⁹ 6 × 10 ⁻⁹ 6 × 10 ⁻⁹	Gallium (31)	Ga 72	1 5 1	$4 imes 10^{-7} \\ 2 imes 10^{-7} \\ 2 imes 10^{-7} \\ 2 imes 10^{-7}$	$8 imes 10^{-5} \\ 4 imes 10^{-5} \\ 4 imes 10^{-5} \\ -4 imes 10^{-5} \\ -$	1 × 10° 8 × 10° 6 × 10°	Neodymium (60)		$\begin{array}{ccc} S & 8 \times 10^{-11} \\ I & 3 \times 10^{-10} \end{array}$	7×10^{-5} 8×10^{-5}	$3 imes 10^{-12}$ $1 imes 10^{-11}$
Californium (98)	Cf 249	$ \begin{bmatrix} 2 \times 10^{17} \\ S & 2 \times 10^{12} \\ I & 1 \times 10^{10} \end{bmatrix} $	$4 imes 10^{-6}$	5×10 ⁻⁰ 5×10 ⁻⁰ 3×10 ⁻¹²	Germanium (32)	Ge 71	s 1	1 × 10 ⁻⁵ 6 × 10 ⁻⁵	2×10^{-3} 2×10^{-3}	4 × 10 ⁻⁷ 2 × 10 ⁻⁷		Nd 147	$\begin{array}{ccc} S & 4 \times 10^{-7} \\ I & 2 \times 10^{-7} \\ \end{array}$	6×10^{-5} 6×10^{-5}	1 × 10 ⁻⁸ 8 × 10 ⁻⁹
(20)	Cf 250	$\begin{array}{lll} S & 5 \times 10^{*12} \\ I & 1 \times 10^{*10} \end{array}$	1×10^{-5} 3×10^{-5}	2×10^{-13} 3×10^{-12}	Gold (79)	Au 196	S I	1 × 10⊸ 6 × 10⁻¹	2×10^{-4} 1×10^{-4}	$4 imes10^{-8}$ $2 imes10^{-8}$	Neptunium	Nd 149 No 237	$\begin{array}{ccc} S & 2 \times 10^{-6} \\ I & 1 \times 10^{-6} \\ S & 4 \times 10^{-12} \end{array}$	3 × 10 ⁻⁴ 3 × 10 ⁻⁴ 3 × 10 ⁻⁶	$rac{6 imes 10^{ m rv}}{5 imes 10^{ m rv}} \ 1 imes 10^{ m rs}$
0.1	Cf 252	$\begin{array}{ccc} S & 6 \times 10^{-12} \\ I & 1 \times 10^{-10} \\ \end{array}$	2×10*	2×10^{-13} 4×10^{-12}		Au 198	S I	3×10^{-7} 2×10^{-7}	5×10^{-5} 5×10^{-5}	1×10^{-6} 8×10^{-9}	(93)	Np 239	I 1×10 ⁻¹⁰ S 8×10 ⁻⁷	3 × 10 ⁻³ 3 × 10 ⁻³ 1 × 10 ⁻⁴	4 × 10 ⁻¹² 3 × 10 ⁻⁸
Carbon (6) Cerium	C 14 (CO ₂) Ce 141	S 4×10 ⁻⁶ Sub 5×10 ⁻⁵ S 4×10 ⁻⁷	-	1 × 10 ⁻⁷ 1 × 10 ⁻⁶ 2 × 10 ⁻⁸	Hafnium	Au 199 Hf 181	S I S	1 × 10*6 8 × 10*7 4 × 10*8	2×10^{-4} 2×10^{-4} 7×10^{-5}	4 × 10 ⁻⁸ 3 × 10 ⁻⁸ 1 × 10 ⁻⁹	Nickel	Ni 59	1 7×10 ⁻⁷ S 5×10 ⁻⁷	1 × 10 ⁻⁴ 2 × 10 ⁻⁴	2×10^{-6} 2×10^{-8}
Cerium (58)	Ce 141	I 2×10 ⁻⁷ S 3×10 ⁻⁷	9 × 10°5	2 × 10 ⁻⁹ 5 × 10 ⁻⁹ 9 × 10 ⁻⁹	(72) Holmium	Но 166	1 \$	7×10^{-8} 2×10^{-7}	7 × 10 ⁻⁵ 3 × 10 ⁻⁵	3×10 ⁻⁹ 7×10 ⁻⁹	(28)	Ni 63	1 8×10 ⁻¹ S 6×10 ⁻⁸	$\begin{array}{c} 2\times10^{13}\\ 3\times10^{-5}\end{array}$	$3 imes10^{-8}$ $2 imes10^{-9}$
	Ce 144	$\begin{array}{ccc} 1 & 2 \times 10^{.7} \\ \mathrm{S} & 1 \times 10^{.8} \end{array}$	$\begin{array}{c} 4 \times 10^{15} \\ 1 \times 10^{15} \end{array}$	7 × 10*9 3 × 10*10	(67) Hydrogen	Н 3	I S	$2 imes 10^{-7}$ $5 imes 10^{-6}$	3 × 10 ⁻⁵ 3 × 10 ⁻³	$6 imes 10^{-9} \\ 2 imes 10^{-7}$		Ni 65	$\frac{1}{S} = \frac{3 \times 10^{17}}{9 \times 10^{17}}$	7 × 104 1 × 104	$1 imes 10^{-8}$ $3 imes 10^{-8}$
				2×10-10	(1)		Su	b 2 × 10 ⁻³	-	4 × 10 ⁻⁵			I 5×10 ⁻²	1 × 104	$2 imes10^{-8}$

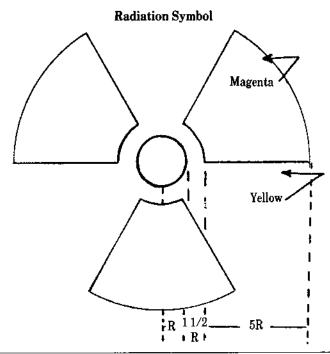
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ELEMEN' (atomic	ſ		Colum 1 AIR	n Columi 2 WATEI	n Column 3 R AIR		Re 187	I S 1	$2 imes 10^{-7}$ $9 imes 10^{-6}$ $5 imes 10^{-7}$	$5 imes 10^{-3}\ 3 imes 10^{-4}\ 2 imes 10^{-4}$	$8 imes 10^{-9} \\ 3 imes 10^{-7} \\ 2 imes 10^{-6}$		T e 127	I S I	4×10^{-6} 2×10^{-6} 0×10^{-5}	5×10^{-5} 3×10^{-4} 2×10^{-4}	1×10^{-6} 6×10^{-9} 2×10^{-9}
	ISOTOP	Έι	(ue/m]				Re 188	ş	$4 imes 10^{-7}$	$6 imes 10^{-5}$	1×10^{14}		Te 129m	i S	$9 imes10^{+7}$ $8 imes10^{+9}$	2×10^{-4} 3×10^{-5}	$3 imes 10^{-1}$ $3 imes 10^{-3}$
Niobium	Nb 93m	ş	$1 imes 10^{17}$	4 × 10 ⁻⁴	4×10^{-9}	Rhodium	Rh 103m	I S	2 × 10* 8 × 10*	$3 imes 10^{-5}$ $1 imes 10^{-2}$	$6 imes 10^{-9} \ 3 imes 10^{-6}$		T. 190	l S	3×10^{-6}	2×10^{-5} 8×10^{-4}	$1 imes 10^{9}$ $2 imes 10^{1}$
(Columbium (41)	NP 82	I S	2×10^{-7} 5×10^{-7}	4 × 10 ⁻⁴ 1 × 10 ⁻⁴	$5 imes10^{**}$ $2 imes10^{**}$	(45)	DL 105	I S	6 × 10 ⁻³	1×10^{-2}	2×10^{-5}		Te 129	J	$5 imes 10^{-4} \ 4 imes 10^{-4}$	8 × 10 ·	2 × 10 ⁻⁷
	Nb 97	1 5	$1 imes 10^{17} \\ 6 imes 10^{-6}$	1 × 10 ⁻⁴ 9 × 10 ⁻⁴	3×10^{-9} 2×10^{-7}		Rh 105	I	$rac{8 imes 10^{-7}}{5 imes 10^{-7}}$	1 × 104 1 × 104	$rac{3 imes10^{ m ss}}{2 imes10^{ m ss}}$		Te 131m	s	4 × 10 ⁻⁷	6 × 10 ⁻³	1 × 10**
		I	$5 imes10^{-6}$	9×10-4	2 × 10 ⁻⁷	Rubidium (37)	Rb 86	S I	$3 imes 10^{-7}$ $7 imes 10^{-6}$	7×10^{-3} 2×10^{-3}	$rac{1 imes10^{-6}}{2 imes10^{-8}}$		Te 132	1 S	$rac{2 imes10^{12}}{2 imes10^{12}}$	4×10^{-5} 3×10^{-5}	$6 imes10^{-9}\ 7 imes10^{-9}$
Osmium (76)	Os 185	- S 1	5 × 10*7 5 × 10*	$rac{7 imes10^{-5}}{7 imes10^{-5}}$	$2 \times 10^{+}$ 2×10^{-9}	(31)	Rb 87	Ś	$5 imes 10^{17}$	1×10^{-4}	2×10^{-s}			Ι	1×10^{-3}	2×10^{-5}	$4 imes10^{-9}$
(10)	Os 191m	8	$2 imes 10^{-5}$	3×10^{13}	$6 imes 10^{-1}$	Ruthenium	Ru 97	I S	7 × 10* 2 × 10*	2×10^{-4} 4×10^{-4}	2 × 10* 8 × 10*	Terbium (65)	Tb 160	S I	L × 10* 3 × 10*	$4 imes 10^{-5}$ $4 imes 10^{-5}$	$3 imes 10^{-9}$ $1 imes 10^{-9}$
	Os 191	1 - \$	$9 imes 10^{-6} \\ 1 imes 10^{-6}$	$2 imes 10^{-3}$ $2 imes 10^{-4}$	$3 imes 10^{+7}$ $4 imes 10^{+6}$	(44)		1	$2 imes10^{-6}$	3 × 10-4	6×10^{-3}	Thallium	Tl 200	s	$3 imes 10^{-6}$	$4 imes 10^{-4}$	$9 imes 10^{\circ}$
		I	$4 imes10^{-7}$	$2 imes 10^{-4}$	$1 imes10^{-8}$		Ru 103	s 1	$5 \times 10^{+1}$ $8 \times 10^{+1}$	8×10^{-5} 8×10^{-5}	2 × 10*8 3 × 10*9	(81)	TI 201	i S	$rac{1 imes 10^{-6}}{2 imes 10^{-6}}$	$2 imes 10^{-4}$ $3 imes 10^{-4}$	4 × 10** 7 × 10**
	Os 193	$\frac{s}{1}$	$4 imes10^{-7}\ 3 imes10^{-7}$	$6 imes10^{ ightarrow}$ $5 imes10^{ ightarrow}$	$1 imes 10^{-8} \\ 9 imes 10^{-9}$		Ru 105	S	7×10^{-7}	1 × 10 ⁻⁴	$2 imes 10^{-8}$		11 401	Ι	9 × 10 ⁻⁷	2 × 10*1	3×10*
Palladium (46)	Pd 103	S I	$1 imes 10^{-6}$ $7 imes 10^{-7}$	$3 imes 10^{-4}$ $3 imes 10^{-4}$	$5 imes 10^{-6} \ 3 imes 10^{-6}$		Ru 106	ŝ	$5 imes 10^{17} \\ 8 imes 10^{18}$	1 × 10* 1 × 10*5	$2 imes 10^{-8} \ 3 imes 10^{-9}$		TI 202	S I	$\frac{8 imes 10^{-7}}{2 imes 10^{-7}}$	$rac{1 imes10^{-4}}{7 imes10^{-5}}$	3 × 10° 8 × 10°
(10)	Pd 109	ŝ	6 × 10°	$9 imes 10^{-4}$	2×10**	Samarium	Sm 147	I S	6×10-9 7×10-11	$1 imes 10^{-5}$ $6 imes 10^{-5}$	$2 imes10^{ ext{-10}}\ 2 imes10^{ ext{-12}}$		TI 204	S	6 × 10 ⁻¹	1 × 10*	2×10*
Phosphorus	P 32	I S	$4 imes 10^{-7}\ 7 imes 10^{-8}$	$7 imes 10^{-5}$ $2 imes 10^{-5}$	1×10^{-8} 2×10^{-9}	(62)		I	3×10^{-10}	$7 imes10^{-5}$	9×10^{-12}	m	71 005	1	3×10^{-8}	$6 imes 10^{-5}$	9×10 ^m
(15)		ľ	$8 imes 10^{-6}$	2×10^{-5}	3×10%		Sm 151	S I	$rac{6 imes 10^{-8}}{1 imes 10^{-7}}$	4 × 10* 4 × 10*	2 × 10* 5 × 10*	Thorium (90)	Th 227	S I	$3 imes 10^{10}$ $2 imes 10^{10}$	2×10^{-5} 2×10^{-5}	1 × 10°11 6 × 10°12
Platinum (78)	Pt 191	S T	$8 imes 10^{-7} \\ 6 imes 10^{-7}$	1×10^{-4} 1×10^{-4}	${3 imes 10^{-8}}\over{2 imes 10^{-8}}$		Sm 153	S	$5 imes10^{-7}$	$8 imes10^{-5}$	2 × 10-4		Th 228	S	$9 imes 10^{-12}$	$7 imes 10^{-6}$	$3 imes 10^{-13}$
	Pt 193m	S 1	$7 imes10$ 6 $5 imes10$ 6	$1 imes 10^{-3}$ $1 imes 10^{-3}$	2×10^{-7} 2×10^{-7}	Scandium	Sc 46	l S	4×10^{-9} 2×10^{-9}	$\frac{8 \times 10^{-5}}{4 \times 10^{-5}}$	1 × 10* 8 × 10*9		Th 230	I S	6 × 10 ⁻¹² 2 × 10 ⁻¹²	$1 imes10^{-5}$ $2 imes10^{-6}$	2 × 10*** 8 × 10***
	Pt 193	s	$1 imes 10^{-5}$	$9 imes 10^{-4}$	$4 imes 10^{-5}$	(21)		I	2×10^{-8}	4 × 10 ⁻⁵	8 × 10 ⁻¹⁰			I	1×10^{-11}	$3 imes 10^{-5}$	3×10^{-13}
	Pt 197m	1 S	3 × 10* 6 × 10*	$2 imes 10^{-3} \ 1 imes 10^{-3}$	1 × 10'' 2 × 10''		Sc 47	S I	$6 imes 10^{-7} \\ 5 imes 10^{-7}$	9 × 10° 9 × 10°	$2 imes10^{-6}$ $2 imes10^{-6}$		Th 231	S 1	$1 imes 10^{-6}$ $1 imes 10^{-6}$	$2 imes 10^{-4}$ $2 imes 10^{-4}$	5 × 10* 4 × 10*
		I	$5 imes10^{-6}$	9×10*	$2 imes 10^{-7}$		Sc 48	S I	$2 imes 10^{-7}$ $1 imes 10^{-7}$	$3 imes 10^{-5} \ 3 imes 10^{-5}$	6 × 10* 5 × 10*		Th 232	s	2×10^{-12}	2×10^{-6}	7×10 ⁻¹⁴
	Pt 197	s I	$8 imes 10^{+7} \\ 6 imes 10^{+7}$	1 × 10** 1 × 10**	$3 \times 10^{*}$ $2 \times 10^{*}$	Selenium	Se 75	s	1×10^{-6}	3×10° 3×10⁴	4 × 10*		T L 074	1	1×10^{-11}	4 × 10 ⁻⁵	4 × 10 ⁻¹³
Plutonium	Pu 238	Ŝ	2×10^{12}	$5 imes 10^{-6}$	$7 imes10^{-14}$	(34) Silicon	Si 31	I S	1×10^{-7} 6×10^{-6}	3×10⁴ 9×10⁴	4 × 10* 2 × 10⁺		Th 234	S í	$6 imes 10^{-8} \ 3 imes 10^{-8}$	$2 imes 10^{-5}$ $2 imes 10^{-5}$	$2 imes 10^{-9}$ $1 imes 10^{-9}$
(94)	Pu 239	I S	$rac{3 imes 10^{-11}}{2 imes 10^{-12}}$	3 × 10 ⁻⁵ 5 × 10 ⁻⁶	1 × 10 ⁻¹² 6 × 10 ⁻¹⁴	(14)		1	$1 imes 10^{-6}$	2×10*	$3 imes10^{-8}$	Т	h natural	s	$2 imes 10^{-12}$	1 × 10 ⁻⁶	6 × 10 ⁻¹
	Pu 240	1 S	$4 imes 10^{-11} \ 2 imes 10^{-12}$	$3 imes 10^{-5} \\ 5 imes 10^{-6}$	1 × 10 ⁻¹² 6 × 10 ⁻¹⁴	Silver (47)	Ag 105	S I	6 × 10** 8 × 10**	1 × 10 + 1 × 10 +	$2 imes 10^{-8}$ $3 imes 10^{-9}$	Thulium	T m 170	I S	$4 imes 10^{-12} \\ 4 imes 10^{-5}$	1 × 10°5 5 × 10°5	$1 imes 10^{-13} - 1 imes 10^{-9}$
		Ι	4 × 10°11	$3 imes 10^{-5}$	$1 imes 10^{-12}$	1	Ag 110m	ş	2×10^{-7}	$3 imes 10^{-5}$	$7 imes 10^{-9}$	(69)		1	3×10^{-5}	$5 imes 10^{-5}$	$1 imes 10^{-9}$
	Pu 241	S I	9×10^{-11} 4×10^{-8}	2 × 10** 1 × 10**	3 × 10-12 1 × 10-9		Ag 111	I S	1 × 10** 3 × 10*7	3 × 10 ⁻⁵ 4 × 10 ⁻⁵	3 × 10 ⁻¹⁰ 1 × 10 ⁻⁸		Tm 171	S I	$1 imes 10^{17} \\ 2 imes 10^{17}$	5 × 10* 5 × 10*	$4 imes 10^{-9}$ $8 imes 10^{-9}$
	Pu 242	ş	$2 imes 10^{12}$	$5 imes 10^{-6}$	6 × 10-14	Sodium	Na 22	I S	2×10^{-7} 2×10^{-7}	$4 imes10^{-5}\ 4 imes10^{-5}$	8 × 10* 6 × 10*	Tin	Sn 113	s	4×10*	9×10^{-5}	$1 imes 10^{-8}$
Polonium	Po 210	I S	4 × 10 ⁻¹¹ 5 × 10 ⁻¹⁰	$3 imes 10^{-5} - 7 imes 10^{-7}$	1 × 10 ⁻¹² 2 × 10 ⁻¹¹	(11)		I	9×10-9	$3 imes 10^{-5}$	3 × 10 ⁻¹⁰	(50)	Sn 125	I S	$5 imes 10^{-9}$ $1 imes 10^{-7}$	8 × 10 ⁻⁵ 2 × 10 ⁻⁵	2 × 10*9 4 × 10*9
(84) Dotecnium	K 42	I	2 × 10 ⁻¹⁰	3×10.5	$7 imes10^{-12}$		Na 24	S 1	1 × 10* 1 × 10*	2×10^{-6} 3×10^{-5}	$4 imes 10^{-8}$ $5 imes 10^{-9}$		011120	Ĭ	8×10*	2 × 10 ⁻⁵	3×10⇒
Potassium (19)	К 42	S I	2 × 10* 1 × 10*	$3 imes 10^{-4}$ $2 imes 10^{-5}$	7 × 10** 4 × 10**	Strontium	Sr 85m	s	4×10^{-5}	7×10^{-3}	1×10%	Tungsten (Walfware)	W 181	\$ 1	2×10^{-6}	4 × 10 ⁻⁴	$8 imes10$ * $4 imes10$ 9
Praseody mium	Pr 142	s	$2 \times 10^{.7}$	3×10^{-5}	7×10-9	(38)	Sr 85	l S	3×10^{-5} 2×10^{-7}	7 × 10-3 1 × 10-4	$1 imes 10^{-6}$ $8 imes 10^{-9}$	(Wolfram) (74)	W 185	S	1×10^{17} 8×10^{12}	3×104 1×104	4 × 10 ⁻³
(59)		1	$2 imes 10^{-7}$	$3 imes 10^{-5}$	$5 imes 10^{.9}$			I	1×10^{-7}	2×10^{-4}	4×10*9			[1×10-7	1 × 10**	4 × 10 ⁻⁹
	Pr 143	S I	3 × 10 ⁻⁷ 2 × 10 ⁻⁷	$5 imes 10^{-5} \\ 5 imes 10^{-5}$	1×10^{-8} 2×10^{-9}		Sr 89	S I	3 × 10* 4 × 10*	$1 imes 10^{-5}$ $3 imes 10^{-5}$	I × 10 ⁻⁹ 1 × 10 ⁻⁹		W 187	S I	4×10^{-7} 3×10^{-7}	7 × 10* 6 × 10*	$2 imes10^{-8}$ $1 imes10^{-8}$
Promethium	Pm 147	s	6 × 10-4	2×10.4	$2 imes 10^{-9}$		Sr 90	S	3×10-10	1×10^{-7}	1×10^{-11}	Uranium	U 230	S	3×10-10	5×10-6	1 × 10°11
(61)	Pm 149	I S	1×10^{-7} 3×10^{-7}	$2 imes 10^{-4} = 4 imes 10^{-5}$	3 × 10 ⁻⁹ 1 × 10 ⁻⁹		Sr 91	s	5×10° 4×10°	4 × 10°5 7 × 10°5	2×10^{-10} 2×10^{-8}	(92)	U 232	I S	1×10^{-10} 1×10^{-10}	5 × 10 ° 3 × 10 °	$4 imes 10^{-12}$ $3 imes 10^{-12}$
Protoacti		l	$2 imes 10^{.7}$	4×10*5	$8 imes 10^{-9}$		Sr 92	1 S	3×107 4×107	5×10⊸ 7×10⊸	9×10*9 2×10*8			1	3×10^{-11}	3×10*	9 × 10 ⁻¹⁰
nium	- Pa 230	s	$2 imes 10^{-9}$	2 × 10*	$6 imes10^{-11}$			1	$3 imes 10^{-7}$	$6 imes 10^{-5}$	$1 imes 10^{-8}$		U 233	S I	$5 imes 10^{-10}$ $1 imes 10^{-10}$	3×10^{-5} 3×10^{-5}	$2 imes 10^{-11}$ $4 imes 10^{-12}$
(91)	Pa 231	I S	$8 imes 10^{\circ 10}$ $1 imes 10^{\circ 12}$	3×10+ 9×10+	3×10 ⁻¹¹ 4×10 ⁻¹⁴	Sulfur (16)	S 35	S I	3 × 10 ⁻⁷ 3 × 10 ⁻⁷	6 × 10* 3 × 10*	9×10*9 9×10*9		U 234	s	6 × 10 ⁻¹⁰	3×10^{-5}	2×10^{-11}
		[$1 imes 10^{-10}$	$2 imes10^{-5}$	4 × 10 ⁻¹²	Tantalum	Ta 182	S	4 × 10°8	$4 imes 10^{-5}$	1 × 10'9		U 235	I	1×10^{-10}	3 × 10°	4 × 10 ⁻¹²
	Pa 233	S I	$6 imes 10^{-7}$ $2 imes 10^{-7}$	1×10^{-4} 1×10^{-4}	2×10 ⁻⁸ 6×10 ⁻⁹	(73) Technetium		I S	2×10* 8×10*	$4 imes 10^{-5} \ 1 imes 10^{-2}$	$7 imes 10^{-10}$ $3 imes 10^{-6}$		0 200	S I	5 × 10 ⁻¹⁰ 1 × 10 ⁻¹⁰	3 × 10*5 3 × 10*5	2 × 10 ⁻¹¹ 4 × 10 ⁻¹²
Radium	Ra 223	Ş	2×10^{-9}	$7 imes10^{\circ2}$	$6 imes 10^{-11}$	(43)		I	3×10^{-5}	1×10^{-2}	1 × 10 ⁻⁶		U 236	s	6×10-10	3×10.5	2×10^{-11}
(88)	Ra 224	I S	$2 imes 10^{-10} - 5 imes 10^{-9}$	$4 imes 10^{-6} \\ 2 imes 10^{-6}$	8×10 ⁻¹² 2×10 ⁻¹⁰			s I	6 × 10 ⁻⁷ 2 × 10 ⁻⁷	$1 imes10^{-4}$ $5 imes10^{-5}$	2 × 10 ⁻⁸ 8 × 10 ⁻⁹		U 238	1 S	1 × 10·10 7 × 10·11	3×10 ⁻⁵ 4×10 ⁻⁵	$4 imes 10^{-12}\ 3 imes 10^{-12}$
	Ra 226	1 S	7×10^{-10}	5 × 10 ⁻⁶	2 × 10 ⁻¹¹			S I	2 × 10 ⁻⁶	4×10^{-4}	8×10^{-8} 5×10^{-9}			I	1×10^{-10}	$4 imes 10^{15}$	$5 imes 10^{-12}$
	Iva 220	I	$3 imes 10^{-11} \ 2 imes 10^{-7}$	$1 imes 10^{-6} \ 3 imes 10^{-5}$	1 × 10 ⁻¹² 6 × 10 ⁻⁹		_	s	2×10^{-7} 1×10^{-5}	$2 imes 10^{-4} \\ 2 imes 10^{-3}$	4 × 10 ⁻⁷		U natural	S I		2 × 10 ⁻⁵ 2 × 10 ⁻⁵	3×10^{-12} 2×10^{-12}
	Ra 228	S I	$7 imes 10^{-11} \\ 4 imes 10^{-11}$	3 × 10* 3 × 10*	2×10^{-12} 1×10^{-12}		Tc 99m	1 S	3 × 10'' 4 × 10'5	8 × 10 ⁻⁴ 6 × 10 ⁻³	1 × 10** 1 × 10**	Vanadium	V 48	\$	$2 imes 10^{-7}$	3×10^{-5}	6×10-9
Radon	Rn 220	\mathbf{S}	3×107	-	1 × 10°8			I	1×10^{-5}	3 × 10 ⁻³	5×10*	(23) Xenon	Xe 131m] Տոհ	$6 imes 10^{-8}$ $2 imes 10^{-5}$	3×10⁵	2 × 10*9 4 × 10*7
(86)	Rn 222	I S	3×10°	-	1 × 10*9			S I	2×10^{-6} 6×10^{-8}	$3 imes 10^{-4}$ $2 imes 10^{-4}$	7 × 10** 2 × 10**	Xenon (54)	Xe 131m Xe 133		1 × 10 °	-	4 × 10 ⁻⁷
Rhenium (75)	Re 183	S	$3 imes 10^{-6}$	6 × 10*4	$9 imes 10^{-6}$	Tellurium	Te 125m	S	4×10^{-7}	$2 imes 10^{-4}$	$1 imes 10^{-8}$	V41	Xe 135		4 × 10 ⁻⁶		1×10^{-7}
(75)	Re 186	1 S	2 × 10-1 6 × 10-1	3 × 10 ⁻⁴ 9 × 10 ⁻⁶	5 × 10*9 2 × 10*9	(52)	Te 127m		1 × 10 ^{.4} 1 × 10 ^{.7}	1 × 10** 6 × 10**	4 × 10 ⁻⁹ 5 × 10 ⁻⁹	Ytterbium (70)	Yb 175		7×10^{-7} 6×10^{-7}	1 × 104 1 × 104	$2 imes 10^{-8}$ $2 imes 10^{-6}$

ELEMENT (atomic number)	ISOTOP	Е ^і	Column 1 AIR (uc/ml)	Column 2 WATER (uc/ml)	Column 3 AIR (uc/ml)
Yttrium	Y 90	s	$1 imes 10^{\circ7}$	$2 imes 10^{15}$	4 × 10 ^{.9}
(39)		[$1 imes10^{-7}$	2×dd1110	1-
				à	3×10*
	Y91m	\$ [$2 imes 10^{-5}$	$3 imes 10^{-3}$	8×10 ⁻⁷
			$2 imes 10^{-5}$	$3 imes 10^{-3}$	$6 imes 10^{-7}$
	Y 93	s I	$4 imes 10^{-9}$	$3 imes 10^{-5}$	$1 imes 10^{-9}$
		[$3 imes 10^{-8}$	3×10⁼	$1 imes 10^{-9}$
	Y 92	S	4 × 10	6 × 10°	1×10^{-6}
		I	$3 imes 10^{-7}$	6 × 10**	1 × 10**
	Y 93	s	$2 imes 10^{-7}$	$3 imes 10^{-5}$	6×10° ⁹
		ſ	$1 imes 10^{-7}$	$3 imes 10^{-3}$	$5 imes 10^{-9}$
Zinc	Zn 65	s	$1 imes 10^{-7}$	1 × 10-1	4 × 10**
(30)		I	$6 imes10^{-6}$	2×10^{-1}	$2 imes 10^{-9}$
	Zn 69m	8 1	$4 imes 10^{17}$	$7 imes10^{-5}$	$1 imes 10^{-6}$
			3×10^{-7}	6 × 10 °	1 × 10°°
	Zn 69	S	$7 imes 10^{-6}$	$2 imes 10^{-3}$	$2 imes 10^{-7}$
		I	9×10-e	2 × 10 ⁻³	3×10^{-7}
Zirconium	Zr 93	S I	1 × 107	8×104	4 × 10 ⁻⁹
(40)			$3 imes 10^{-7}$	8×104	$1 imes 10^{-8}$
	Zr 95	s I	1×10^{-7}	6×10 ⁻⁵	4 imes10 %
			$3 imes10^{-5}$	6 × 10 ⁻⁵	1 × 10°°
	Zr 97	S	$1 imes 10^{-7}$	2×10^{-5}	4 × 10 ⁻⁹
		I	$9 imes10^{rs}$	2×10^{-5}	$3 imes10^{-9}$

EXPLANATORY NOTE: These concentrations may be modified to conform to recommendations promulgated by recognized and authoritative national and international agencies.

APPENDIX II



 $\space{-1.5} \space{-1.5} \sp$

²Noble gas--Values given for submersion in an infinite cloud.