

Table A7. ^{36}Cl measurements in cement and pebbles separated from the Kirin Beer Hall concrete^a

Sample material	Mean depth (cm)	DS86 ground range (m)	DS02 ground range (m)	Measured Cl-36/Cl	Measured-bkg Cl-36/Cl	SD Cl-36/Cl	DS86 Cl-36/Cl	DS02 Cl-36/Cl
Cement	0.5	664	679	8.67E-13	7.43E-13	3.35E-14	1.19E-11	1.07E-11
Cement	2.5	664	679	2.37E-12	2.25E-12	6.80E-14	1.19E-11	1.07E-11
Cement	5.5	664	679	4.45E-12	4.33E-12	8.73E-14	1.16E-11	1.04E-11
Pebbles	5.5	664	679	7.65E-12	7.53E-12	1.33E-13	1.16E-11	1.04E-11
Pebbles	8.5	664	679	5.17E-12	5.05E-12	8.17E-14	9.86E-12	8.94E-12
Pebbles	17.5	664	679	2.61E-12	2.49E-12	5.08E-14	4.85E-12	4.51E-12
Pebbles	20.5	664	679	2.76E-12	2.64E-12	5.41E-14	3.69E-12	3.43E-12
Pebbles	23.25	664	679	2.30E-12	2.18E-12	4.24E-14	2.93E-12	2.79E-12
Cement	23.25	664	679	1.82E-12	1.70E-12	4.53E-14	2.93E-12	2.79E-12
Cement	23.25	664	679	1.64E-12	1.52E-12	7.62E-14	2.93E-12	2.79E-12

^aMeasured using the LLNL AMS machine.Table A8. ^{36}Cl measurements in concrete core samples from the Hiroshima City Hall^a

Mean depth (cm)	DS86 ground range (m)	DS02 ground range (m)	Measured Cl-36/Cl	Measured-bkg Cl-36/Cl	SD Cl-36/Cl	DS86 Cl-36/Cl	DS02 Cl-36/Cl
9.5	1055	1060	6.67E-13	5.43E-13	5.08E-14	4.01E-13	4.60E-13
12.5	1055	1060	4.33E-13	3.09E-13	3.69E-14	3.29E-13	3.82E-13
18.5	1055	1060	4.10E-13	2.86E-13	3.79E-14	2.15E-13	2.47E-13
24.5	1055	1060	2.27E-13	1.03E-13	3.41E-14	1.31E-13	1.46E-13
30.5	1055	1060	2.02E-13	7.80E-14	3.42E-14	7.76E-14	8.50E-14
36.5	1055	1060	1.27E-13	3.00E-15	3.23E-14	4.67E-14	4.93E-14
42.5	1055	1060	1.42E-13	1.80E-14	3.75E-14	3.14E-14	3.32E-14
45.5 ^b	1055	1060	1.21E-13	-3.00E-15	5.55E-14	2.78E-14	3.02E-14
45.5 ^c	1055	1060	1.53E-13	2.90E-14	4.89E-14	2.78E-14	3.02E-14
48.5	1055	1060	1.17E-13	-7.00E-15	3.23E-14	2.47E-14	2.75E-14

^aMeasured using the Purdue AMS machine.^bCement; ^cPebbles; all others are unseparated concrete.

Table A9. ^{36}Cl measurements in concrete core samples from the Hiroshima City Hall^a

Mean depth (cm)	DS86 ground range (m)	DS02 ground range (m)	Measured Cl-36/Cl	Measured-bkg Cl-36/Cl	SD Cl-36/Cl	DS86 Cl-36/Cl	DS02 Cl-36/Cl
1	1055	1060	5.88E-13	4.64E-13	4.59E-14	5.27E-13	6.09E-13
6.5	1055	1060	6.29E-13	5.05E-13	4.70E-14	4.61E-13	5.28E-13
9.5	1055	1060	6.74E-13	5.50E-13	5.08E-14	4.01E-13	4.60E-13
12.5	1055	1060	4.32E-13	3.08E-13	4.07E-14	3.29E-13	3.82E-13
18.5	1055	1060	4.09E-13	2.85E-13	4.10E-14	2.15E-13	2.47E-13
24.5	1055	1060	2.27E-13	1.03E-13	3.94E-14	1.31E-13	1.46E-13
30.5	1055	1060	2.02E-13	7.80E-14	3.94E-14	7.76E-14	8.50E-14
36.5	1055	1060	1.34E-13	1.00E-14	3.84E-14	4.67E-14	4.93E-14
42.5	1055	1060	1.40E-13	1.60E-14	3.89E-14	3.14E-14	3.32E-14
48.5	1055	1060	1.13E-13	-1.10E-14	3.06E-14	2.47E-14	2.75E-14

^aMeasured using the LLNL AMS machine.Table A10. ^{36}Cl measurements in concrete core samples from the Teishin Hospital

Mean depth (cm)	DS86 ground range (m)	DS02 ground range (m)	Measured Cl-36/Cl	Measured-bkg Cl-36/Cl	SD Cl-36/Cl	DS86 Cl-36/Cl	DS02 Cl-36/Cl
1	1368	1375	3.04E-13	1.80E-13	4.14E-14	5.06E-14	5.81E-14
1	1368	1375	2.78E-13	1.54E-13	4.37E-14	5.06E-14	5.81E-14
1	1368	1375	3.21E-13	1.97E-13	3.83E-14	5.06E-14	5.81E-14
1	1368	1375	3.35E-13	2.11E-13	3.82E-14	5.06E-14	5.81E-14
3.5	1368	1375	3.92E-13	2.68E-13	4.96E-14	5.04E-14	5.77E-14
3.5	1368	1375	3.91E-13	2.67E-13	5.79E-14	5.04E-14	5.77E-14
3.5	1368	1375	3.71E-13	2.47E-13	9.12E-14	5.04E-14	5.77E-14
3.5	1368	1375	3.93E-13	2.69E-13	6.03E-14	5.04E-14	5.77E-14
3.5	1368	1375	2.94E-13	1.70E-13	1.35E-13	5.04E-14	5.77E-14
3.5	1368	1375	3.49E-13	2.25E-13	7.35E-14	5.04E-14	5.77E-14
18.3	1368	1375	1.30E-13	6.00E-15	3.93E-14	3.30E-14	3.72E-14
18.3	1368	1375	1.42E-13	1.80E-14	4.72E-14	3.30E-14	3.72E-14
18.3	1368	1375	1.07E-13	-1.70E-14	7.69E-14	3.30E-14	3.72E-14
18.3	1368	1375	1.18E-13	-6.00E-15	6.59E-14	3.30E-14	3.72E-14
18.3	1368	1375	1.37E-13	1.30E-14	3.86E-14	3.30E-14	3.72E-14

Table A11. ^{36}Cl measurements in two concrete cores from the Hiroshima Red Cross Hospital

Height above ground (m)	Mean depth (cm)	DS86 ground range (m)	DS02 ground range (m)	Measured Cl-36/Cl	Measured-bkg Cl-36/Cl	SD Cl-36/Cl	DS86 Cl-36/Cl	DS02 Cl-36/Cl
9	0.5	1470	1474	3.72E-13 ^a	2.48E-13	3.84E-14	2.71E-14	2.94E-14
9	2	1470	1474	1.40E-13 ^a	1.60E-14	3.31E-14	2.67E-14	2.91E-14
9	3	1470	1474	1.56E-13 ^a	3.20E-14	3.80E-14	2.64E-14	2.89E-14
9	5.4	1470	1474	3.85E-13 ^a	2.61E-13	4.14E-14	2.57E-14	2.83E-14
9	7	1470	1474	2.00E-13 ^a	7.60E-14	6.26E-14	2.39E-14	2.63E-14
9	7.9	1470	1474	2.79E-13 ^a	1.55E-13	3.94E-14	2.30E-14	2.53E-14
9	10.6	1470	1474	3.01E-13 ^a	1.77E-13	3.82E-14	2.02E-14	2.21E-14
9	16.4	1470	1474	2.30E-13 ^a	1.06E-13	3.82E-14	1.35E-14	1.49E-14
9	19.1	1470	1474	1.37E-13 ^a	1.30E-14	3.79E-14	1.11E-14	1.22E-14
9	22.1	1470	1474	9.11E-14 ^a	-3.29E-14	4.19E-14	9.00E-15	9.77E-15
9	5.4	1470	1474	3.99E-13 ^b	2.75E-13	4.35E-14	2.57E-14	2.83E-14
9	10.6	1470	1474	2.92E-13 ^b	1.68E-13	6.12E-14	2.02E-14	2.21E-14
9	16.4	1470	1474	2.36E-13 ^b	1.12E-13	5.24E-14	1.35E-14	1.49E-14
9	22.1	1470	1474	8.97E-14 ^b	-3.43E-14	3.12E-14	9.00E-15	9.77E-15
20	2.75	1496	1501	2.63E-13 ^a	1.39E-13	4.07E-14	2.21E-14	2.41E-14
20	5.2	1496	1501	2.12E-13 ^b	8.80E-14	4.95E-14	2.27E-14	2.52E-14
20	5.2	1496	1501	2.30E-13 ^a	1.06E-13	4.34E-14	2.27E-14	2.52E-14
20	5.2	1496	1501	1.40E-13 ^c	1.60E-14	7.10E-14	2.27E-14	2.52E-14
20	10.9	1496	1501	1.40E-13 ^b	1.60E-14	5.36E-14	1.82E-14	1.99E-14
20	13.9	1496	1501	1.38E-13 ^b	1.40E-14	4.19E-14	1.55E-14	1.67E-14
20	13.9	1496	1501	1.00E-13 ^c	-2.40E-14	6.67E-14	1.55E-14	1.67E-14
20	22.9	1496	1501	1.20E-13 ^b	-4.00E-15	7.96E-14	7.78E-15	8.24E-15
20	25.5	1496	1501	6.82E-14 ^a	-5.58E-14	3.80E-14	6.14E-15	6.50E-15

^aMeasured using the LLNL AMS machine.^bMeasured using the Purdue AMS machine.^cMeasured using the Munich AMS machine (also reported in Chapter 8, Part E).

Table A12. ^{36}Cl measurements in concrete core samples from the Hiroshima Postal Savings Bureau

Sample	Mean depth (cm)	DS86 ground range (m)	DS02 ground range (m)	Measured Cl-36/Cl	Measured-bkg Cl-36/Cl	SD Cl-36/Cl	DS86 Cl-36/Cl	DS02 Cl-36/Cl
Surf. Cem ^a	1.5	1585	1591	5.79E-13	4.55E-13	4.38E-14	1.02E-14	1.18E-14
Surf. Cem ^a	1.5	1585	1591	3.10E-13	1.86E-13	3.62E-14	1.02E-14	1.18E-14
Concrete ^b	5.75	1594	1600	1.98E-13	7.40E-14	3.87E-14	9.95E-15	1.15E-14
Concrete	5.75	1585	1591	1.85E-13	6.10E-14	3.09E-14	1.06E-14	1.23E-14
Pebbles	5.75	1585	1591	7.20E-14	-5.20E-14	3.06E-14	1.06E-14	1.23E-14
Pebbles	5.75	1585	1591	7.40E-14	-5.00E-14	3.06E-14	1.06E-14	1.23E-14
Pebbles	9.5	1585	1591	9.51E-14	-2.89E-14	3.03E-14	9.32E-15	1.08E-14
Pebbles	11	1585	1591	2.26E-13	1.02E-13	3.20E-14	8.61E-15	9.98E-15
Pebbles	11	1585	1591	1.36E-13	1.20E-14	3.04E-14	8.61E-15	9.98E-15
Pebbles	11	1585	1591	1.07E-13	-1.70E-14	3.31E-14	8.61E-15	9.98E-15
Pebbles	21.5	1585	1591	1.30E-13	6.00E-15	3.02E-14	4.09E-15	4.60E-15
Pebbles	21.5	1585	1591	2.58E-13	1.34E-13	3.91E-14	4.09E-15	4.60E-15
Pebbles	28	1585	1591	1.50E-13	2.60E-14	3.20E-14	2.35E-15	2.62E-15
Pebbles	28	1585	1591	1.40E-13	1.60E-14	3.20E-14	2.35E-15	2.62E-15

^aFrom Straume et al. 1992.^bThis measurement was made in a different core from the same building wall and at the same height above ground.

Table A13. Cl-36 measurement results for the intercomparison granite samples

Hoshi ID	U.S. ID	Sample location	DS86 ground range (m)	DS02 ground range (m)	Measured Cl-36/Cl	Measured-bkg Cl-36/Cl	SD Cl-36/Cl	DS86 Cl-36/Cl	DS02 Cl-36/Cl
1	S-108-T	Motoyasu Br.	145	134	1.46E-10	1.46E-10	8.51E-12	2.01E-10	1.81E-10
1	S-108-B	Motoyasu Br.	145	134	1.69E-10	1.69E-10	1.88E-12	1.94E-10	1.73E-10
1	S-108-T	Motoyasu Br.	145	134	1.64E-10	1.64E-10	1.53E-12	2.01E-10	1.81E-10
1	S-108-B	Motoyasu Br.	145	134	1.71E-10	1.71E-10	2.13E-12	1.94E-10	1.73E-10
2	S-109-1	Shirakami	496	504	2.19E-11	2.18E-11	4.00E-13	3.26E-11	3.02E-11
2	S-109-2	Shirakami	496	504	2.11E-11	2.10E-11	9.15E-13	3.26E-11	3.02E-11
4	S-111-1	Myochoji	654	639	9.59E-12	9.47E-12	3.63E-13	9.99E-12	1.17E-11
4	S-111-2	Myochoji	654	639	9.85E-12	9.73E-12	3.15E-13	9.99E-12	1.17E-11
5	S-112-1	Old pref.	881	877	4.14E-12	4.02E-12	3.72E-13	1.60E-12	1.95E-12
5	S-112-2	Old pref.	881	877	4.15E-12	4.03E-12	8.11E-14	1.60E-12	1.95E-12
3	S-110-1	Honkeinji	893	896	1.39E-12	1.27E-12	4.93E-14	1.45E-12	1.68E-12
3	S-110-2	Honkeinji	893	896	1.38E-12	1.26E-12	5.36E-14	1.45E-12	1.68E-12
6	S-113-1	Enryuaji	912	925	1.20E-12	1.08E-12	8.03E-14	1.25E-12	1.34E-12
6	S-113-2	Enryuaji	912	925	1.38E-12	1.26E-12	5.48E-14	1.25E-12	1.34E-12
7	S-114-1	Shingyoji	927	915	1.32E-12	1.20E-12	1.02E-13	1.11E-12	1.45E-12
7	S-114-2	Shingyoji	927	915	1.32E-12	1.20E-12	4.36E-14	1.11E-12	1.45E-12
9	S-116-1	Kozenji	1163	1177	4.52E-13	3.28E-13	4.45E-14	1.71E-13	1.94E-13
9	S-116-2	Kozenji	1163	1177	4.29E-13	3.05E-13	3.56E-14	1.71E-13	1.94E-13
10	S-117-1	Sengyoji	Highly shielded	Highly shielded	1.85E-13		5.07E-14		
10	S-117-2	Sengyoji	Highly shielded	Highly shielded	1.85E-13		2.60E-14		
11	S-118-1	Kannonji	Highly shielded	Highly shielded	1.80E-13		2.78E-14		
11	S-118-2	Kannonji	Highly shielded	Highly shielded	1.68E-13		1.05E-14		
Calibration solutions exposed by Hoshi et al. to neutron sources in the laboratory:									
			Measured		SD				
Solution-10	Thermal Neutrons		8.75E-12		9.89E-14				
Solution-13	Epithermal Neutrons		1.74E-12		2.76E-14				