

Supporting information file of the manuscript:

# Analysis of the role of water saturation degree on HTO, $^{36}\text{Cl}$ and $^{75}\text{Se}$ diffusion in sedimentary rock

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**Table S1.** Experimental data and fitted results from  $^{75}\text{Se}$  diffusion at 1.2 g/cm<sup>3</sup> and 100% saturation. –

Experimental		Fitted results			
x	y	x	High	Low	Total
-0.0388	0.0045	-0.040	$3.85 \times 10^{-4}$	$2.90 \times 10^{-174}$	$3.85 \times 10^{-4}$
-0.0362	0.0060	-0.039	$5.09 \times 10^{-4}$	$1.07 \times 10^{-165}$	$5.09 \times 10^{-4}$
-0.0338	0.0067	-0.038	$6.67 \times 10^{-4}$	$2.39 \times 10^{-157}$	$6.67 \times 10^{-4}$
-0.0315	0.0110	-0.037	$8.67 \times 10^{-4}$	$3.24 \times 10^{-149}$	$8.67 \times 10^{-4}$
-0.0291	0.0130	-0.036	$1.12 \times 10^{-3}$	$2.66 \times 10^{-141}$	$1.12 \times 10^{-3}$
-0.0269	0.0180	-0.035	$1.44 \times 10^{-3}$	$1.33 \times 10^{-133}$	$1.44 \times 10^{-3}$
-0.0250	0.0228	-0.034	$1.83 \times 10^{-3}$	$4.04 \times 10^{-126}$	$1.83 \times 10^{-3}$
-0.0232	0.0249	-0.033	$2.32 \times 10^{-3}$	$7.43 \times 10^{-119}$	$2.32 \times 10^{-3}$
-0.0215	0.0327	-0.032	$2.91 \times 10^{-3}$	$8.29 \times 10^{-112}$	$2.91 \times 10^{-3}$
-0.0199	0.0383	-0.031	$3.63 \times 10^{-3}$	$5.62 \times 10^{-105}$	$3.63 \times 10^{-3}$
-0.0183	0.0436	-0.030	$4.50 \times 10^{-3}$	$2.31 \times 10^{-98}$	$4.50 \times 10^{-3}$
-0.0165	0.0519	-0.029	$5.54 \times 10^{-3}$	$5.77 \times 10^{-92}$	$5.54 \times 10^{-3}$
-0.0146	0.0573	-0.028	$6.76 \times 10^{-3}$	$8.75 \times 10^{-86}$	$6.76 \times 10^{-3}$
-0.0127	0.0662	-0.027	$8.20 \times 10^{-3}$	$8.05 \times 10^{-80}$	$8.20 \times 10^{-3}$
-0.0110	0.0719	-0.026	$9.88 \times 10^{-3}$	$4.49 \times 10^{-74}$	$9.88 \times 10^{-3}$
-0.0095	0.0810	-0.025	$1.18 \times 10^{-2}$	$1.52 \times 10^{-68}$	$1.18 \times 10^{-2}$
-0.0081	0.0813	-0.024	$1.40 \times 10^{-2}$	$3.13 \times 10^{-63}$	$1.40 \times 10^{-2}$
-0.0067	0.0859	-0.023	$1.66 \times 10^{-2}$	$3.91 \times 10^{-58}$	$1.66 \times 10^{-2}$
-0.0054	0.0987	-0.022	$1.94 \times 10^{-2}$	$2.96 \times 10^{-53}$	$1.94 \times 10^{-2}$
-0.0044	0.1299	-0.021	$2.25 \times 10^{-2}$	$1.36 \times 10^{-48}$	$2.25 \times 10^{-2}$
-0.0035	0.1967	-0.020	$2.60 \times 10^{-2}$	$3.80 \times 10^{-44}$	$2.60 \times 10^{-2}$
-0.0026	0.3075	-0.019	$2.99 \times 10^{-2}$	$6.43 \times 10^{-40}$	$2.99 \times 10^{-2}$
-0.0018	0.4361	-0.018	$3.40 \times 10^{-2}$	$6.61 \times 10^{-36}$	$3.40 \times 10^{-2}$
-0.0011	0.6339	-0.017	$3.84 \times 10^{-2}$	$4.12 \times 10^{-32}$	$3.84 \times 10^{-2}$
-0.0003	0.8941	-0.016	$4.32 \times 10^{-2}$	$1.56 \times 10^{-28}$	$4.32 \times 10^{-2}$
0.0000	1.0000	-0.015	$4.81 \times 10^{-2}$	$3.59 \times 10^{-25}$	$4.81 \times 10^{-2}$
0.0006	0.7764	-0.014	$5.33 \times 10^{-2}$	$5.00 \times 10^{-22}$	$5.33 \times 10^{-2}$
0.0016	0.4877	-0.013	$5.86 \times 10^{-2}$	$4.23 \times 10^{-19}$	$5.86 \times 10^{-2}$
0.0025	0.3071	-0.012	$6.39 \times 10^{-2}$	$2.17 \times 10^{-16}$	$6.39 \times 10^{-2}$
0.0033	0.1968	-0.011	$6.93 \times 10^{-2}$	$6.78 \times 10^{-14}$	$6.93 \times 10^{-2}$
0.0042	0.1279	-0.010	$7.46 \times 10^{-2}$	$1.28 \times 10^{-11}$	$7.46 \times 10^{-2}$
0.0052	0.0970	-0.009	$7.98 \times 10^{-2}$	$1.47 \times 10^{-9}$	$7.98 \times 10^{-2}$
0.0064	0.0798	-0.008	$8.47 \times 10^{-2}$	$1.03 \times 10^{-7}$	$8.47 \times 10^{-2}$
0.0074	0.0749	-0.007	$8.93 \times 10^{-2}$	$4.35 \times 10^{-6}$	$8.93 \times 10^{-2}$
0.0085	0.0701	-0.006	$9.34 \times 10^{-2}$	$1.12 \times 10^{-4}$	$9.35 \times 10^{-2}$
0.0099	0.0629	-0.005	$9.71 \times 10^{-2}$	$1.74 \times 10^{-3}$	$9.88 \times 10^{-2}$
0.0113	0.0566	-0.004	$1.00 \times 10^{-1}$	$1.65 \times 10^{-2}$	$1.17 \times 10^{-1}$
0.0127	0.0533	-0.003	$1.03 \times 10^{-1}$	$9.45 \times 10^{-2}$	$1.97 \times 10^{-1}$
0.0141	0.0499	-0.002	$1.05 \times 10^{-1}$	$3.29 \times 10^{-1}$	$4.34 \times 10^{-1}$
0.0157	0.0449	-0.001	$1.06 \times 10^{-1}$	$6.96 \times 10^{-1}$	$8.02 \times 10^{-1}$
0.0171	0.0394	0.000	$1.06 \times 10^{-1}$	$8.94 \times 10^{-1}$	$1.00 \times 10^0$
0.0184	0.0328	0.001	$1.06 \times 10^{-1}$	$6.96 \times 10^{-1}$	$8.02 \times 10^{-1}$
0.0196	0.0294	0.002	$1.05 \times 10^{-1}$	$3.29 \times 10^{-1}$	$4.34 \times 10^{-1}$
0.0210	0.0276	0.003	$1.03 \times 10^{-1}$	$9.45 \times 10^{-2}$	$1.97 \times 10^{-1}$
0.0224	0.0226	0.004	$1.00 \times 10^{-1}$	$1.65 \times 10^{-2}$	$1.17 \times 10^{-1}$
0.0238	0.0210	0.005	$9.71 \times 10^{-2}$	$1.74 \times 10^{-3}$	$9.88 \times 10^{-2}$
0.0252	0.0174	0.006	$9.34 \times 10^{-2}$	$1.12 \times 10^{-4}$	$9.35 \times 10^{-2}$

0.0266	0.0174	0.007	$8.93 \times 10^{-2}$	$4.35 \times 10^{-6}$	$8.93 \times 10^{-2}$
0.0282	0.0131	0.008	$8.47 \times 10^{-2}$	$1.03 \times 10^{-7}$	$8.47 \times 10^{-2}$
0.0300	0.0100	0.009	$7.98 \times 10^{-2}$	$1.47 \times 10^{-9}$	$7.98 \times 10^{-2}$
0.0320	0.0070	0.010	$7.46 \times 10^{-2}$	$1.28 \times 10^{-11}$	$7.46 \times 10^{-2}$
0.0344	0.0068	0.011	$6.93 \times 10^{-2}$	$6.78 \times 10^{-14}$	$6.93 \times 10^{-2}$
0.0379	0.0049	0.012	$6.39 \times 10^{-2}$	$2.17 \times 10^{-16}$	$6.39 \times 10^{-2}$
		0.013	$5.86 \times 10^{-2}$	$4.23 \times 10^{-19}$	$5.86 \times 10^{-2}$
		0.014	$5.33 \times 10^{-2}$	$5.00 \times 10^{-22}$	$5.33 \times 10^{-2}$
		0.015	$4.81 \times 10^{-2}$	$3.59 \times 10^{-25}$	$4.81 \times 10^{-2}$
		0.016	$4.32 \times 10^{-2}$	$1.56 \times 10^{-28}$	$4.32 \times 10^{-2}$
		0.017	$3.84 \times 10^{-2}$	$4.12 \times 10^{-32}$	$3.84 \times 10^{-2}$
		0.018	$3.40 \times 10^{-2}$	$6.61 \times 10^{-36}$	$3.40 \times 10^{-2}$
		0.019	$2.99 \times 10^{-2}$	$6.43 \times 10^{-40}$	$2.99 \times 10^{-2}$
		0.020	$2.60 \times 10^{-2}$	$3.80 \times 10^{-44}$	$2.60 \times 10^{-2}$
		0.021	$2.25 \times 10^{-2}$	$1.36 \times 10^{-48}$	$2.25 \times 10^{-2}$
		0.022	$1.94 \times 10^{-2}$	$2.96 \times 10^{-53}$	$1.94 \times 10^{-2}$
		0.023	$1.66 \times 10^{-2}$	$3.91 \times 10^{-58}$	$1.66 \times 10^{-2}$
		0.024	$1.40 \times 10^{-2}$	$3.13 \times 10^{-63}$	$1.40 \times 10^{-2}$
		0.025	$1.18 \times 10^{-2}$	$1.52 \times 10^{-68}$	$1.18 \times 10^{-2}$
		0.026	$9.88 \times 10^{-3}$	$4.49 \times 10^{-74}$	$9.88 \times 10^{-3}$
		0.027	$8.20 \times 10^{-3}$	$8.05 \times 10^{-80}$	$8.20 \times 10^{-3}$
		0.028	$6.76 \times 10^{-3}$	$8.75 \times 10^{-86}$	$6.76 \times 10^{-3}$
		0.029	$5.54 \times 10^{-3}$	$5.77 \times 10^{-92}$	$5.54 \times 10^{-3}$
		0.030	$4.50 \times 10^{-3}$	$2.31 \times 10^{-98}$	$4.50 \times 10^{-3}$
		0.031	$3.63 \times 10^{-3}$	$5.62 \times 10^{-105}$	$3.63 \times 10^{-3}$
		0.032	$2.91 \times 10^{-3}$	$8.29 \times 10^{-112}$	$2.91 \times 10^{-3}$
		0.033	$2.32 \times 10^{-3}$	$7.43 \times 10^{-119}$	$2.32 \times 10^{-3}$
		0.034	$1.83 \times 10^{-3}$	$4.04 \times 10^{-126}$	$1.83 \times 10^{-3}$
		0.035	$1.44 \times 10^{-3}$	$1.33 \times 10^{-133}$	$1.44 \times 10^{-3}$
		0.036	$1.12 \times 10^{-3}$	$2.66 \times 10^{-141}$	$1.12 \times 10^{-3}$
		0.037	$8.67 \times 10^{-4}$	$3.24 \times 10^{-149}$	$8.67 \times 10^{-4}$
		0.038	$6.67 \times 10^{-4}$	$2.39 \times 10^{-157}$	$6.67 \times 10^{-4}$
		0.039	$5.09 \times 10^{-4}$	$1.07 \times 10^{-165}$	$5.09 \times 10^{-4}$
		0.040	$3.85 \times 10^{-4}$	$2.90 \times 10^{-174}$	$3.85 \times 10^{-4}$

Table S2. Experimental data and fitted results from  $^{75}\text{Se}$  diffusion at 1.2 g/cm<sup>3</sup> and 90% saturation.

Experimental		Fitted results			
x	y	x	High	Low	Total
-0.0385	0.0023	-0.040	$1.22 \times 10^{-4}$	$3.10 \times 10^{-197}$	$1.22 \times 10^{-4}$
-0.0361	0.0037	-0.039	$1.70 \times 10^{-4}$	$1.55 \times 10^{-187}$	$1.70 \times 10^{-4}$
-0.0342	0.0023	-0.038	$2.36 \times 10^{-4}$	$4.43 \times 10^{-178}$	$2.36 \times 10^{-4}$
-0.0324	0.0053	-0.037	$3.25 \times 10^{-4}$	$7.16 \times 10^{-169}$	$3.25 \times 10^{-4}$
-0.0307	0.0067	-0.036	$4.43 \times 10^{-4}$	$6.58 \times 10^{-160}$	$4.43 \times 10^{-4}$
-0.0289	0.0081	-0.035	$5.99 \times 10^{-4}$	$3.44 \times 10^{-151}$	$5.99 \times 10^{-4}$
-0.0273	0.0085	-0.034	$8.03 \times 10^{-4}$	$1.02 \times 10^{-142}$	$8.03 \times 10^{-4}$
-0.0255	0.0104	-0.033	$1.07 \times 10^{-3}$	$1.72 \times 10^{-134}$	$1.07 \times 10^{-3}$
-0.0235	0.0155	-0.032	$1.41 \times 10^{-3}$	$1.65 \times 10^{-126}$	$1.41 \times 10^{-3}$
-0.0219	0.0203	-0.031	$1.84 \times 10^{-3}$	$8.95 \times 10^{-119}$	$1.84 \times 10^{-3}$
-0.0205	0.0220	-0.030	$2.38 \times 10^{-3}$	$2.77 \times 10^{-111}$	$2.38 \times 10^{-3}$
-0.0190	0.0287	-0.029	$3.06 \times 10^{-3}$	$4.86 \times 10^{-104}$	$3.06 \times 10^{-3}$
-0.0177	0.0348	-0.028	$3.90 \times 10^{-3}$	$4.84 \times 10^{-97}$	$3.90 \times 10^{-3}$
-0.0164	0.0412	-0.027	$4.93 \times 10^{-3}$	$2.74 \times 10^{-90}$	$4.93 \times 10^{-3}$
-0.0151	0.0452	-0.026	$6.17 \times 10^{-3}$	$8.83 \times 10^{-84}$	$6.17 \times 10^{-3}$
-0.0140	0.0503	-0.025	$7.67 \times 10^{-3}$	$1.62 \times 10^{-77}$	$7.67 \times 10^{-3}$
-0.0128	0.0589	-0.024	$9.44 \times 10^{-3}$	$1.68 \times 10^{-71}$	$9.44 \times 10^{-3}$
-0.0113	0.0673	-0.023	$1.15 \times 10^{-2}$	$9.90 \times 10^{-66}$	$1.15 \times 10^{-2}$
-0.0100	0.0772	-0.022	$1.40 \times 10^{-2}$	$3.32 \times 10^{-60}$	$1.40 \times 10^{-2}$
-0.0089	0.0838	-0.021	$1.68 \times 10^{-2}$	$6.32 \times 10^{-55}$	$1.68 \times 10^{-2}$
-0.0078	0.0936	-0.020	$2.00 \times 10^{-2}$	$6.84 \times 10^{-50}$	$2.00 \times 10^{-2}$
-0.0067	0.0960	-0.019	$2.36 \times 10^{-2}$	$4.21 \times 10^{-45}$	$2.36 \times 10^{-2}$
-0.0054	0.1018	-0.018	$2.76 \times 10^{-2}$	$1.47 \times 10^{-40}$	$2.76 \times 10^{-2}$
-0.0042	0.1369	-0.017	$3.20 \times 10^{-2}$	$2.91 \times 10^{-36}$	$3.20 \times 10^{-2}$
-0.0031	0.2003	-0.016	$3.68 \times 10^{-2}$	$3.28 \times 10^{-32}$	$3.68 \times 10^{-2}$
-0.0021	0.3886	-0.015	$4.20 \times 10^{-2}$	$2.10 \times 10^{-28}$	$4.20 \times 10^{-2}$
-0.0011	0.6422	-0.014	$4.75 \times 10^{-2}$	$7.65 \times 10^{-25}$	$4.75 \times 10^{-2}$
-0.0003	0.9278	-0.013	$5.33 \times 10^{-2}$	$1.58 \times 10^{-21}$	$5.33 \times 10^{-2}$
0.0000	1.0000	-0.012	$5.92 \times 10^{-2}$	$1.86 \times 10^{-18}$	$5.92 \times 10^{-2}$
0.0005	0.9830	-0.011	$6.53 \times 10^{-2}$	$1.24 \times 10^{-15}$	$6.53 \times 10^{-2}$
0.0014	0.5609	-0.010	$7.14 \times 10^{-2}$	$4.69 \times 10^{-13}$	$7.14 \times 10^{-2}$
0.0024	0.3287	-0.009	$7.74 \times 10^{-2}$	$1.01 \times 10^{-10}$	$7.74 \times 10^{-2}$
0.0034	0.1964	-0.008	$8.32 \times 10^{-2}$	$1.23 \times 10^{-8}$	$8.32 \times 10^{-2}$
0.0044	0.1282	-0.007	$8.87 \times 10^{-2}$	$8.58 \times 10^{-7}$	$8.87 \times 10^{-2}$
0.0055	0.1058	-0.006	$9.37 \times 10^{-2}$	$3.38 \times 10^{-5}$	$9.38 \times 10^{-2}$
0.0067	0.0984	-0.005	$9.82 \times 10^{-2}$	$7.59 \times 10^{-4}$	$9.90 \times 10^{-2}$
0.0079	0.0901	-0.004	$1.02 \times 10^{-1}$	$9.66 \times 10^{-3}$	$1.12 \times 10^{-1}$
0.0093	0.0872	-0.003	$1.05 \times 10^{-1}$	$6.99 \times 10^{-2}$	$1.75 \times 10^{-1}$
0.0107	0.0772	-0.002	$1.07 \times 10^{-1}$	$2.87 \times 10^{-1}$	$3.95 \times 10^{-1}$
0.0121	0.0716	-0.001	$1.09 \times 10^{-1}$	$6.71 \times 10^{-1}$	$7.80 \times 10^{-1}$
0.0135	0.0634	0.000	$1.09 \times 10^{-1}$	$8.91 \times 10^{-1}$	$1.00 \times 10^0$
0.0148	0.0573	0.001	$1.09 \times 10^{-1}$	$6.71 \times 10^{-1}$	$7.80 \times 10^{-1}$
0.0161	0.0497	0.002	$1.07 \times 10^{-1}$	$2.87 \times 10^{-1}$	$3.95 \times 10^{-1}$
0.0176	0.0432	0.003	$1.05 \times 10^{-1}$	$6.99 \times 10^{-2}$	$1.75 \times 10^{-1}$
0.0191	0.0377	0.004	$1.02 \times 10^{-1}$	$9.66 \times 10^{-3}$	$1.12 \times 10^{-1}$
0.0206	0.0312	0.005	$9.82 \times 10^{-2}$	$7.59 \times 10^{-4}$	$9.90 \times 10^{-2}$
0.0220	0.0207	0.006	$9.37 \times 10^{-2}$	$3.38 \times 10^{-5}$	$9.38 \times 10^{-2}$
0.0234	0.0202	0.007	$8.87 \times 10^{-2}$	$8.58 \times 10^{-7}$	$8.87 \times 10^{-2}$

0.0249	0.0169	0.008	$8.32 \times 10^{-2}$	$1.23 \times 10^{-8}$	$8.32 \times 10^{-2}$
0.0264	0.0124	0.009	$7.74 \times 10^{-2}$	$1.01 \times 10^{-10}$	$7.74 \times 10^{-2}$
0.0280	0.0096	0.010	$7.14 \times 10^{-2}$	$4.69 \times 10^{-13}$	$7.14 \times 10^{-2}$
0.0297	0.0081	0.011	$6.53 \times 10^{-2}$	$1.24 \times 10^{-15}$	$6.53 \times 10^{-2}$
0.0317	0.0054	0.012	$5.92 \times 10^{-2}$	$1.86 \times 10^{-18}$	$5.92 \times 10^{-2}$
0.0336	0.0059	0.013	$5.33 \times 10^{-2}$	$1.58 \times 10^{-21}$	$5.33 \times 10^{-2}$
0.0357	0.0039	0.014	$4.75 \times 10^{-2}$	$7.65 \times 10^{-25}$	$4.75 \times 10^{-2}$
0.0383	0.0029	0.015	$4.20 \times 10^{-2}$	$2.10 \times 10^{-28}$	$4.20 \times 10^{-2}$
		0.016	$3.68 \times 10^{-2}$	$3.28 \times 10^{-32}$	$3.68 \times 10^{-2}$
		0.017	$3.20 \times 10^{-2}$	$2.91 \times 10^{-36}$	$3.20 \times 10^{-2}$
		0.018	$2.76 \times 10^{-2}$	$1.47 \times 10^{-40}$	$2.76 \times 10^{-2}$
		0.019	$2.36 \times 10^{-2}$	$4.21 \times 10^{-45}$	$2.36 \times 10^{-2}$
		0.020	$2.00 \times 10^{-2}$	$6.84 \times 10^{-50}$	$2.00 \times 10^{-2}$
		0.021	$1.68 \times 10^{-2}$	$6.32 \times 10^{-55}$	$1.68 \times 10^{-2}$
		0.022	$1.40 \times 10^{-2}$	$3.32 \times 10^{-60}$	$1.40 \times 10^{-2}$
		0.023	$1.15 \times 10^{-2}$	$9.90 \times 10^{-66}$	$1.15 \times 10^{-2}$
		0.024	$9.44 \times 10^{-3}$	$1.68 \times 10^{-71}$	$9.44 \times 10^{-3}$
		0.025	$7.67 \times 10^{-3}$	$1.62 \times 10^{-77}$	$7.67 \times 10^{-3}$
		0.026	$6.17 \times 10^{-3}$	$8.83 \times 10^{-84}$	$6.17 \times 10^{-3}$
		0.027	$4.93 \times 10^{-3}$	$2.74 \times 10^{-90}$	$4.93 \times 10^{-3}$
		0.028	$3.90 \times 10^{-3}$	$4.84 \times 10^{-97}$	$3.90 \times 10^{-3}$
		0.029	$3.06 \times 10^{-3}$	$4.86 \times 10^{-104}$	$3.06 \times 10^{-3}$
		0.030	$2.38 \times 10^{-3}$	$2.77 \times 10^{-111}$	$2.38 \times 10^{-3}$
		0.031	$1.84 \times 10^{-3}$	$8.95 \times 10^{-119}$	$1.84 \times 10^{-3}$
		0.032	$1.41 \times 10^{-3}$	$1.65 \times 10^{-126}$	$1.41 \times 10^{-3}$
		0.033	$1.07 \times 10^{-3}$	$1.72 \times 10^{-134}$	$1.07 \times 10^{-3}$
		0.034	$8.03 \times 10^{-4}$	$1.02 \times 10^{-142}$	$8.03 \times 10^{-4}$
		0.035	$5.99 \times 10^{-4}$	$3.44 \times 10^{-151}$	$5.99 \times 10^{-4}$
		0.036	$4.43 \times 10^{-4}$	$6.58 \times 10^{-160}$	$4.43 \times 10^{-4}$
		0.037	$3.25 \times 10^{-4}$	$7.16 \times 10^{-169}$	$3.25 \times 10^{-4}$
		0.038	$2.36 \times 10^{-4}$	$4.43 \times 10^{-178}$	$2.36 \times 10^{-4}$
		0.039	$1.70 \times 10^{-4}$	$1.55 \times 10^{-187}$	$1.70 \times 10^{-4}$
		0.040	$1.22 \times 10^{-4}$	$3.10 \times 10^{-197}$	$1.22 \times 10^{-4}$

Table S3. Experimental data and fitted results from  $^{75}\text{Se}$  diffusion at 1.2 g/cm<sup>3</sup> and 80% saturation.

Experimental		Fitted results			
x	y	x	High	Low	Total
-0.0379	0.0000	-0.040	$6.63 \times 10^{-8}$	$0.00 \times 10^0$	$6.63 \times 10^{-8}$
-0.0349	0.0000	-0.039	$1.33 \times 10^{-7}$	$0.00 \times 10^0$	$1.33 \times 10^{-7}$
-0.0330	0.0009	-0.038	$2.63 \times 10^{-7}$	$0.00 \times 10^0$	$2.63 \times 10^{-7}$
-0.0311	0.0019	-0.037	$5.09 \times 10^{-7}$	$0.00 \times 10^0$	$5.09 \times 10^{-7}$
-0.0292	0.0016	-0.036	$9.68 \times 10^{-7}$	$0.00 \times 10^0$	$9.68 \times 10^{-7}$
-0.0272	0.0013	-0.035	$1.81 \times 10^{-6}$	$0.00 \times 10^0$	$1.81 \times 10^{-6}$
-0.0254	0.0017	-0.034	$3.33 \times 10^{-6}$	$0.00 \times 10^0$	$3.33 \times 10^{-6}$
-0.0235	0.0039	-0.033	$6.01 \times 10^{-6}$	$0.00 \times 10^0$	$6.01 \times 10^{-6}$
-0.0217	0.0061	-0.032	$1.07 \times 10^{-5}$	$0.00 \times 10^0$	$1.07 \times 10^{-5}$
-0.0200	0.0081	-0.031	$1.86 \times 10^{-5}$	$0.00 \times 10^0$	$1.86 \times 10^{-5}$
-0.0183	0.0095	-0.030	$3.18 \times 10^{-5}$	$0.00 \times 10^0$	$3.18 \times 10^{-5}$
-0.0168	0.0137	-0.029	$5.35 \times 10^{-5}$	$0.00 \times 10^0$	$5.35 \times 10^{-5}$
-0.0153	0.0190	-0.028	$8.84 \times 10^{-5}$	$0.00 \times 10^0$	$8.84 \times 10^{-5}$
-0.0139	0.0244	-0.027	$1.44 \times 10^{-4}$	$8.96 \times 10^{-294}$	$1.44 \times 10^{-4}$
-0.0125	0.0284	-0.026	$2.29 \times 10^{-4}$	$1.80 \times 10^{-272}$	$2.29 \times 10^{-4}$
-0.0110	0.0364	-0.025	$3.59 \times 10^{-4}$	$5.67 \times 10^{-252}$	$3.59 \times 10^{-4}$
-0.0095	0.0462	-0.024	$5.54 \times 10^{-4}$	$2.80 \times 10^{-232}$	$5.54 \times 10^{-4}$
-0.0083	0.0508	-0.023	$8.38 \times 10^{-4}$	$2.18 \times 10^{-213}$	$8.38 \times 10^{-4}$
-0.0070	0.0586	-0.022	$1.25 \times 10^{-3}$	$2.66 \times 10^{-195}$	$1.25 \times 10^{-3}$
-0.0059	0.0679	-0.021	$1.82 \times 10^{-3}$	$5.11 \times 10^{-178}$	$1.82 \times 10^{-3}$
-0.0047	0.0744	-0.020	$2.61 \times 10^{-3}$	$1.54 \times 10^{-161}$	$2.61 \times 10^{-3}$
-0.0036	0.0778	-0.019	$3.69 \times 10^{-3}$	$7.29 \times 10^{-146}$	$3.69 \times 10^{-3}$
-0.0024	0.1139	-0.018	$5.11 \times 10^{-3}$	$5.42 \times 10^{-131}$	$5.11 \times 10^{-3}$
-0.0014	0.2842	-0.017	$6.96 \times 10^{-3}$	$6.33 \times 10^{-117}$	$6.96 \times 10^{-3}$
-0.0005	0.7267	-0.016	$9.30 \times 10^{-3}$	$1.16 \times 10^{-103}$	$9.30 \times 10^{-3}$
0.0000	1.0000	-0.015	$1.22 \times 10^{-2}$	$3.35 \times 10^{-91}$	$1.22 \times 10^{-2}$
0.0003	0.8901	-0.014	$1.58 \times 10^{-2}$	$1.52 \times 10^{-79}$	$1.58 \times 10^{-2}$
0.0010	0.4383	-0.013	$2.00 \times 10^{-2}$	$1.08 \times 10^{-68}$	$2.00 \times 10^{-2}$
0.0019	0.1765	-0.012	$2.50 \times 10^{-2}$	$1.21 \times 10^{-58}$	$2.50 \times 10^{-2}$
0.0028	0.0968	-0.011	$3.06 \times 10^{-2}$	$2.12 \times 10^{-49}$	$3.06 \times 10^{-2}$
0.0038	0.0832	-0.010	$3.68 \times 10^{-2}$	$5.84 \times 10^{-41}$	$3.68 \times 10^{-2}$
0.0048	0.0780	-0.009	$4.35 \times 10^{-2}$	$2.53 \times 10^{-33}$	$4.35 \times 10^{-2}$
0.0059	0.0718	-0.008	$5.06 \times 10^{-2}$	$1.72 \times 10^{-26}$	$5.06 \times 10^{-2}$
0.0070	0.0618	-0.007	$5.77 \times 10^{-2}$	$1.84 \times 10^{-20}$	$5.77 \times 10^{-2}$
0.0081	0.0551	-0.006	$6.47 \times 10^{-2}$	$3.09 \times 10^{-15}$	$6.47 \times 10^{-2}$
0.0093	0.0474	-0.005	$7.13 \times 10^{-2}$	$8.15 \times 10^{-11}$	$7.13 \times 10^{-2}$
0.0105	0.0405	-0.004	$7.72 \times 10^{-2}$	$3.38 \times 10^{-7}$	$7.72 \times 10^{-2}$
0.0120	0.0335	-0.003	$8.22 \times 10^{-2}$	$2.20 \times 10^{-4}$	$8.24 \times 10^{-2}$
0.0134	0.0262	-0.002	$8.59 \times 10^{-2}$	$2.25 \times 10^{-2}$	$1.08 \times 10^{-1}$
0.0149	0.0205	-0.001	$8.82 \times 10^{-2}$	$3.61 \times 10^{-1}$	$4.49 \times 10^{-1}$
0.0166	0.0148	0.000	$8.89 \times 10^{-2}$	$9.11 \times 10^{-1}$	$1.00 \times 10^0$
0.0182	0.0105	0.001	$8.82 \times 10^{-2}$	$3.61 \times 10^{-1}$	$4.49 \times 10^{-1}$
0.0201	0.0078	0.002	$8.59 \times 10^{-2}$	$2.25 \times 10^{-2}$	$1.08 \times 10^{-1}$
0.0218	0.0057	0.003	$8.22 \times 10^{-2}$	$2.20 \times 10^{-4}$	$8.24 \times 10^{-2}$
0.0237	0.0043	0.004	$7.72 \times 10^{-2}$	$3.38 \times 10^{-7}$	$7.72 \times 10^{-2}$
0.0257	0.0019	0.005	$7.13 \times 10^{-2}$	$8.15 \times 10^{-11}$	$7.13 \times 10^{-2}$
0.0276	0.0007	0.006	$6.47 \times 10^{-2}$	$3.09 \times 10^{-15}$	$6.47 \times 10^{-2}$
0.0295	0.0011	0.007	$5.77 \times 10^{-2}$	$1.84 \times 10^{-20}$	$5.77 \times 10^{-2}$

0.0315	0.0008	0.008	$5.06 \times 10^{-2}$	$1.72 \times 10^{-26}$	$5.06 \times 10^{-2}$
0.0335	0.0011	0.009	$4.35 \times 10^{-2}$	$2.53 \times 10^{-33}$	$4.35 \times 10^{-2}$
0.0354	0.0005	0.010	$3.68 \times 10^{-2}$	$5.84 \times 10^{-41}$	$3.68 \times 10^{-2}$
0.0382	0.0003	0.011	$3.06 \times 10^{-2}$	$2.12 \times 10^{-49}$	$3.06 \times 10^{-2}$
0.0317	0.0054	0.012	$2.50 \times 10^{-2}$	$1.21 \times 10^{-58}$	$2.50 \times 10^{-2}$
0.0336	0.0059	0.013	$2.00 \times 10^{-2}$	$1.08 \times 10^{-68}$	$2.00 \times 10^{-2}$
0.0357	0.0039	0.014	$1.58 \times 10^{-2}$	$1.52 \times 10^{-79}$	$1.58 \times 10^{-2}$
0.0383	0.0029	0.015	$1.22 \times 10^{-2}$	$3.35 \times 10^{-91}$	$1.22 \times 10^{-2}$
		0.016	$9.30 \times 10^{-3}$	$1.16 \times 10^{-103}$	$9.30 \times 10^{-3}$
		0.017	$6.96 \times 10^{-3}$	$6.33 \times 10^{-117}$	$6.96 \times 10^{-3}$
		0.018	$5.11 \times 10^{-3}$	$5.42 \times 10^{-131}$	$5.11 \times 10^{-3}$
		0.019	$3.69 \times 10^{-3}$	$7.29 \times 10^{-146}$	$3.69 \times 10^{-3}$
		0.020	$2.61 \times 10^{-3}$	$1.54 \times 10^{-161}$	$2.61 \times 10^{-3}$
		0.021	$1.82 \times 10^{-3}$	$5.11 \times 10^{-178}$	$1.82 \times 10^{-3}$
		0.022	$1.25 \times 10^{-3}$	$2.66 \times 10^{-195}$	$1.25 \times 10^{-3}$
		0.023	$8.38 \times 10^{-4}$	$2.18 \times 10^{-213}$	$8.38 \times 10^{-4}$
		0.024	$5.54 \times 10^{-4}$	$2.80 \times 10^{-232}$	$5.54 \times 10^{-4}$
		0.025	$3.59 \times 10^{-4}$	$5.67 \times 10^{-252}$	$3.59 \times 10^{-4}$
		0.026	$2.29 \times 10^{-4}$	$1.80 \times 10^{-272}$	$2.29 \times 10^{-4}$
		0.027	$1.44 \times 10^{-4}$	$8.96 \times 10^{-294}$	$1.44 \times 10^{-4}$
		0.028	$8.84 \times 10^{-5}$	$0.00 \times 10^0$	$8.84 \times 10^{-5}$
		0.029	$5.35 \times 10^{-5}$	$0.00 \times 10^0$	$5.35 \times 10^{-5}$
		0.030	$3.18 \times 10^{-5}$	$0.00 \times 10^0$	$3.18 \times 10^{-5}$
		0.031	$1.86 \times 10^{-5}$	$0.00 \times 10^0$	$1.86 \times 10^{-5}$
		0.032	$1.07 \times 10^{-5}$	$0.00 \times 10^0$	$1.07 \times 10^{-5}$
		0.033	$6.01 \times 10^{-6}$	$0.00 \times 10^0$	$6.01 \times 10^{-6}$
		0.034	$3.33 \times 10^{-6}$	$0.00 \times 10^0$	$3.33 \times 10^{-6}$
		0.035	$1.81 \times 10^{-6}$	$0.00 \times 10^0$	$1.81 \times 10^{-6}$
		0.036	$9.68 \times 10^{-7}$	$0.00 \times 10^0$	$9.68 \times 10^{-7}$
		0.037	$5.09 \times 10^{-7}$	$0.00 \times 10^0$	$5.09 \times 10^{-7}$
		0.038	$2.63 \times 10^{-7}$	$0.00 \times 10^0$	$2.63 \times 10^{-7}$
		0.039	$1.33 \times 10^{-7}$	$0.00 \times 10^0$	$1.33 \times 10^{-7}$
		0.040	$6.63 \times 10^{-8}$	$0.00 \times 10^0$	$6.63 \times 10^{-8}$

Table S4. Experimental data and fitted results from  $^{75}\text{Se}$  diffusion at 1.2 g/cm<sup>3</sup> and 70% saturation.

Experimental		Fitted results			
x	y	x	High	Low	Total
-0.0372	0.0000	-0.040	$1.95 \times 10^{-11}$	$0.00 \times 10^0$	$1.95 \times 10^{-11}$
-0.0334	0.0000	-0.039	$5.86 \times 10^{-11}$	$0.00 \times 10^0$	$5.86 \times 10^{-11}$
-0.0314	0.0000	-0.038	$1.71 \times 10^{-10}$	$0.00 \times 10^0$	$1.71 \times 10^{-10}$
-0.0295	0.0006	-0.037	$4.86 \times 10^{-10}$	$0.00 \times 10^0$	$4.86 \times 10^{-10}$
-0.0277	0.0009	-0.036	$1.34 \times 10^{-9}$	$0.00 \times 10^0$	$1.34 \times 10^{-9}$
-0.0261	0.0005	-0.035	$3.60 \times 10^{-9}$	$0.00 \times 10^0$	$3.60 \times 10^{-9}$
-0.0243	0.0012	-0.034	$9.40 \times 10^{-9}$	$0.00 \times 10^0$	$9.40 \times 10^{-9}$
-0.0223	0.0022	-0.033	$2.39 \times 10^{-8}$	$0.00 \times 10^0$	$2.39 \times 10^{-8}$
-0.0203	0.0038	-0.032	$5.90 \times 10^{-8}$	$0.00 \times 10^0$	$5.90 \times 10^{-8}$
-0.0185	0.0054	-0.031	$1.42 \times 10^{-7}$	$0.00 \times 10^0$	$1.42 \times 10^{-7}$
-0.0169	0.0070	-0.030	$3.31 \times 10^{-7}$	$0.00 \times 10^0$	$3.31 \times 10^{-7}$
-0.0153	0.0101	-0.029	$7.52 \times 10^{-7}$	$0.00 \times 10^0$	$7.52 \times 10^{-7}$
-0.0138	0.0153	-0.028	$1.66 \times 10^{-6}$	$0.00 \times 10^0$	$1.66 \times 10^{-6}$
-0.0124	0.0191	-0.027	$3.57 \times 10^{-6}$	$0.00 \times 10^0$	$3.57 \times 10^{-6}$
-0.0111	0.0232	-0.026	$7.47 \times 10^{-6}$	$0.00 \times 10^0$	$7.47 \times 10^{-6}$
-0.0097	0.0297	-0.025	$1.52 \times 10^{-5}$	$0.00 \times 10^0$	$1.52 \times 10^{-5}$
-0.0085	0.0357	-0.024	$3.00 \times 10^{-5}$	$0.00 \times 10^0$	$3.00 \times 10^{-5}$
-0.0073	0.0446	-0.023	$5.77 \times 10^{-5}$	$0.00 \times 10^0$	$5.77 \times 10^{-5}$
-0.0060	0.0539	-0.022	$1.08 \times 10^{-4}$	$3.31 \times 10^{-295}$	$1.08 \times 10^{-4}$
-0.0047	0.0629	-0.021	$1.96 \times 10^{-4}$	$4.77 \times 10^{-269}$	$1.96 \times 10^{-4}$
-0.0035	0.0689	-0.020	$3.47 \times 10^{-4}$	$4.17 \times 10^{-244}$	$3.47 \times 10^{-4}$
-0.0025	0.0794	-0.019	$5.97 \times 10^{-4}$	$2.22 \times 10^{-220}$	$5.97 \times 10^{-4}$
-0.0016	0.1318	-0.018	$9.99 \times 10^{-4}$	$7.16 \times 10^{-198}$	$9.99 \times 10^{-4}$
-0.0010	0.3309	-0.017	$1.63 \times 10^{-3}$	$1.40 \times 10^{-176}$	$1.63 \times 10^{-3}$
-0.0003	0.6611	-0.016	$2.57 \times 10^{-3}$	$1.67 \times 10^{-156}$	$2.57 \times 10^{-3}$
0.0000	1.0000	-0.015	$3.96 \times 10^{-3}$	$1.20 \times 10^{-137}$	$3.96 \times 10^{-3}$
0.0004	0.6677	-0.014	$5.93 \times 10^{-3}$	$5.28 \times 10^{-120}$	$5.93 \times 10^{-3}$
0.0012	0.2731	-0.013	$8.63 \times 10^{-3}$	$1.41 \times 10^{-103}$	$8.63 \times 10^{-3}$
0.0019	0.1173	-0.012	$1.22 \times 10^{-2}$	$2.27 \times 10^{-88}$	$1.22 \times 10^{-2}$
0.0028	0.0784	-0.011	$1.68 \times 10^{-2}$	$2.23 \times 10^{-74}$	$1.68 \times 10^{-2}$
0.0036	0.0686	-0.010	$2.26 \times 10^{-2}$	$1.33 \times 10^{-61}$	$2.26 \times 10^{-2}$
0.0045	0.0641	-0.009	$2.94 \times 10^{-2}$	$4.82 \times 10^{-50}$	$2.94 \times 10^{-2}$
0.0055	0.0554	-0.008	$3.72 \times 10^{-2}$	$1.06 \times 10^{-39}$	$3.72 \times 10^{-2}$
0.0065	0.0486	-0.007	$4.58 \times 10^{-2}$	$1.41 \times 10^{-30}$	$4.58 \times 10^{-2}$
0.0075	0.0419	-0.006	$5.49 \times 10^{-2}$	$1.14 \times 10^{-22}$	$5.49 \times 10^{-2}$
0.0086	0.0383	-0.005	$6.40 \times 10^{-2}$	$5.62 \times 10^{-16}$	$6.40 \times 10^{-2}$
0.0097	0.0290	-0.004	$7.25 \times 10^{-2}$	$1.68 \times 10^{-10}$	$7.25 \times 10^{-2}$
0.0107	0.0249	-0.003	$8.00 \times 10^{-2}$	$3.05 \times 10^{-6}$	$8.00 \times 10^{-2}$
0.0118	0.0192	-0.002	$8.57 \times 10^{-2}$	$3.35 \times 10^{-3}$	$8.91 \times 10^{-2}$
0.0130	0.0156	-0.001	$8.94 \times 10^{-2}$	$2.24 \times 10^{-1}$	$3.13 \times 10^{-1}$
0.0142	0.0129	0.000	$9.06 \times 10^{-2}$	$9.09 \times 10^{-1}$	$1.00 \times 10^0$
0.0156	0.0087	0.001	$8.94 \times 10^{-2}$	$2.24 \times 10^{-1}$	$3.13 \times 10^{-1}$
0.0169	0.0061	0.002	$8.57 \times 10^{-2}$	$3.35 \times 10^{-3}$	$8.91 \times 10^{-2}$
0.0183	0.0040	0.003	$8.00 \times 10^{-2}$	$3.05 \times 10^{-6}$	$8.00 \times 10^{-2}$
0.0198	0.0030	0.004	$7.25 \times 10^{-2}$	$1.68 \times 10^{-10}$	$7.25 \times 10^{-2}$
0.0214	0.0016	0.005	$6.40 \times 10^{-2}$	$5.62 \times 10^{-16}$	$6.40 \times 10^{-2}$
0.0231	0.0019	0.006	$5.49 \times 10^{-2}$	$1.14 \times 10^{-22}$	$5.49 \times 10^{-2}$
0.0245	0.0000	0.007	$4.58 \times 10^{-2}$	$1.41 \times 10^{-30}$	$4.58 \times 10^{-2}$

0.0257	0.0000	0.008	$3.72 \times 10^{-2}$	$1.06 \times 10^{-39}$	$3.72 \times 10^{-2}$
0.0273	0.0000	0.009	$2.94 \times 10^{-2}$	$4.82 \times 10^{-50}$	$2.94 \times 10^{-2}$
0.0292	0.0000	0.010	$2.26 \times 10^{-2}$	$1.33 \times 10^{-61}$	$2.26 \times 10^{-2}$
0.0310	0.0000	0.011	$1.68 \times 10^{-2}$	$2.23 \times 10^{-74}$	$1.68 \times 10^{-2}$
0.0328	0.0000	0.012	$1.22 \times 10^{-2}$	$2.27 \times 10^{-88}$	$1.22 \times 10^{-2}$
0.0348	0.0000	0.013	$8.63 \times 10^{-3}$	$1.41 \times 10^{-103}$	$8.63 \times 10^{-3}$
0.0379	0.0000	0.014	$5.93 \times 10^{-3}$	$5.28 \times 10^{-120}$	$5.93 \times 10^{-3}$
0.0383	0.0029	0.015	$3.96 \times 10^{-3}$	$1.20 \times 10^{-137}$	$3.96 \times 10^{-3}$
		0.016	$2.57 \times 10^{-3}$	$1.67 \times 10^{-156}$	$2.57 \times 10^{-3}$
		0.017	$1.63 \times 10^{-3}$	$1.40 \times 10^{-176}$	$1.63 \times 10^{-3}$
		0.018	$9.99 \times 10^{-4}$	$7.16 \times 10^{-198}$	$9.99 \times 10^{-4}$
		0.019	$5.97 \times 10^{-4}$	$2.22 \times 10^{-220}$	$5.97 \times 10^{-4}$
		0.020	$3.47 \times 10^{-4}$	$4.17 \times 10^{-244}$	$3.47 \times 10^{-4}$
		0.021	$1.96 \times 10^{-4}$	$4.77 \times 10^{-269}$	$1.96 \times 10^{-4}$
		0.022	$1.08 \times 10^{-4}$	$3.31 \times 10^{-295}$	$1.08 \times 10^{-4}$
		0.023	$5.77 \times 10^{-5}$	$0.00 \times 10^0$	$5.77 \times 10^{-5}$
		0.024	$3.00 \times 10^{-5}$	$0.00 \times 10^0$	$3.00 \times 10^{-5}$
		0.025	$1.52 \times 10^{-5}$	$0.00 \times 10^0$	$1.52 \times 10^{-5}$
		0.026	$7.47 \times 10^{-6}$	$0.00 \times 10^0$	$7.47 \times 10^{-6}$
		0.027	$3.57 \times 10^{-6}$	$0.00 \times 10^0$	$3.57 \times 10^{-6}$
		0.028	$1.66 \times 10^{-6}$	$0.00 \times 10^0$	$1.66 \times 10^{-6}$
		0.029	$7.52 \times 10^{-7}$	$0.00 \times 10^0$	$7.52 \times 10^{-7}$
		0.030	$3.31 \times 10^{-7}$	$0.00 \times 10^0$	$3.31 \times 10^{-7}$
		0.031	$1.42 \times 10^{-7}$	$0.00 \times 10^0$	$1.42 \times 10^{-7}$
		0.032	$5.90 \times 10^{-8}$	$0.00 \times 10^0$	$5.90 \times 10^{-8}$
		0.033	$2.39 \times 10^{-8}$	$0.00 \times 10^0$	$2.39 \times 10^{-8}$
		0.034	$9.40 \times 10^{-9}$	$0.00 \times 10^0$	$9.40 \times 10^{-9}$
		0.035	$3.60 \times 10^{-9}$	$0.00 \times 10^0$	$3.60 \times 10^{-9}$
		0.036	$1.34 \times 10^{-9}$	$0.00 \times 10^0$	$1.34 \times 10^{-9}$
		0.037	$4.86 \times 10^{-10}$	$0.00 \times 10^0$	$4.86 \times 10^{-10}$
		0.038	$1.71 \times 10^{-10}$	$0.00 \times 10^0$	$1.71 \times 10^{-10}$
		0.039	$5.86 \times 10^{-11}$	$0.00 \times 10^0$	$5.86 \times 10^{-11}$
		0.040	$1.95 \times 10^{-11}$	$0.00 \times 10^0$	$1.95 \times 10^{-11}$

Table S5. Experimental data and fitted results from  $^{75}\text{Se}$  diffusion at 1.2 g/cm<sup>3</sup> and 60% saturation.

Experimental		Fitted results			
x	y	x	High	Low	Total
-0.0388	0.0000	-0.040	$2.75 \times 10^{-35}$	$0.00 \times 10^0$	$2.75 \times 10^{-35}$
-0.0366	0.0000	-0.039	$1.22 \times 10^{-33}$	$0.00 \times 10^0$	$1.22 \times 10^{-33}$
-0.0348	0.0000	-0.038	$4.93 \times 10^{-32}$	$0.00 \times 10^0$	$4.93 \times 10^{-32}$
-0.0332	0.0000	-0.037	$1.81 \times 10^{-30}$	$0.00 \times 10^0$	$1.81 \times 10^{-30}$
-0.0313	0.0000	-0.036	$6.01 \times 10^{-29}$	$0.00 \times 10^0$	$6.01 \times 10^{-29}$
-0.0298	0.0005	-0.035	$1.82 \times 10^{-27}$	$0.00 \times 10^0$	$1.82 \times 10^{-27}$
-0.0282	0.0004	-0.034	$4.99 \times 10^{-26}$	$0.00 \times 10^0$	$4.99 \times 10^{-26}$
-0.0262	0.0003	-0.033	$1.25 \times 10^{-24}$	$0.00 \times 10^0$	$1.25 \times 10^{-24}$
-0.0241	0.0003	-0.032	$2.82 \times 10^{-23}$	$0.00 \times 10^0$	$2.82 \times 10^{-23}$
-0.0222	0.0002	-0.031	$5.82 \times 10^{-22}$	$0.00 \times 10^0$	$5.82 \times 10^{-22}$
-0.0206	0.0002	-0.030	$1.09 \times 10^{-20}$	$0.00 \times 10^0$	$1.09 \times 10^{-20}$
-0.0188	0.0002	-0.029	$1.85 \times 10^{-19}$	$0.00 \times 10^0$	$1.85 \times 10^{-19}$
-0.0170	0.0005	-0.028	$2.85 \times 10^{-18}$	$0.00 \times 10^0$	$2.85 \times 10^{-18}$
-0.0153	0.0011	-0.027	$4.00 \times 10^{-17}$	$0.00 \times 10^0$	$4.00 \times 10^{-17}$
-0.0135	0.0015	-0.026	$5.10 \times 10^{-16}$	$0.00 \times 10^0$	$5.10 \times 10^{-16}$
-0.0117	0.0028	-0.025	$5.90 \times 10^{-15}$	$0.00 \times 10^0$	$5.90 \times 10^{-15}$
-0.0101	0.0051	-0.024	$6.20 \times 10^{-14}$	$0.00 \times 10^0$	$6.20 \times 10^{-14}$
-0.0086	0.0085	-0.023	$5.92 \times 10^{-13}$	$0.00 \times 10^0$	$5.92 \times 10^{-13}$
-0.0071	0.0141	-0.022	$5.14 \times 10^{-12}$	$0.00 \times 10^0$	$5.14 \times 10^{-12}$
-0.0058	0.0202	-0.021	$4.05 \times 10^{-11}$	$0.00 \times 10^0$	$4.05 \times 10^{-11}$
-0.0046	0.0260	-0.020	$2.90 \times 10^{-10}$	$0.00 \times 10^0$	$2.90 \times 10^{-10}$
-0.0037	0.0312	-0.019	$1.89 \times 10^{-9}$	$0.00 \times 10^0$	$1.89 \times 10^{-9}$
-0.0028	0.0375	-0.018	$1.12 \times 10^{-8}$	$0.00 \times 10^0$	$1.12 \times 10^{-8}$
-0.0018	0.0446	-0.017	$5.99 \times 10^{-8}$	$0.00 \times 10^0$	$5.99 \times 10^{-8}$
-0.0009	0.1005	-0.016	$2.92 \times 10^{-7}$	$0.00 \times 10^0$	$2.92 \times 10^{-7}$
-0.0002	0.4000	-0.015	$1.29 \times 10^{-6}$	$0.00 \times 10^0$	$1.29 \times 10^{-6}$
0.0000	1.0000	-0.014	$5.21 \times 10^{-6}$	$0.00 \times 10^0$	$5.21 \times 10^{-6}$
0.0007	0.2019	-0.013	$1.90 \times 10^{-5}$	$0.00 \times 10^0$	$1.90 \times 10^{-5}$
0.0019	0.0491	-0.012	$6.32 \times 10^{-5}$	$0.00 \times 10^0$	$6.32 \times 10^{-5}$
0.0029	0.0347	-0.011	$1.91 \times 10^{-4}$	$0.00 \times 10^0$	$1.91 \times 10^{-4}$
0.0041	0.0270	-0.010	$5.23 \times 10^{-4}$	$0.00 \times 10^0$	$5.23 \times 10^{-4}$
0.0051	0.0227	-0.009	$1.30 \times 10^{-3}$	$0.00 \times 10^0$	$1.30 \times 10^{-3}$
0.0060	0.0159	-0.008	$2.94 \times 10^{-3}$	$4.82 \times 10^{-290}$	$2.94 \times 10^{-3}$
0.0071	0.0119	-0.007	$6.05 \times 10^{-3}$	$3.06 \times 10^{-222}$	$6.05 \times 10^{-3}$
0.0083	0.0074	-0.006	$1.13 \times 10^{-2}$	$1.77 \times 10^{-163}$	$1.13 \times 10^{-2}$
0.0095	0.0054	-0.005	$1.92 \times 10^{-2}$	$9.30 \times 10^{-114}$	$1.92 \times 10^{-2}$
0.0108	0.0030	-0.004	$2.95 \times 10^{-2}$	$4.46 \times 10^{-73}$	$2.95 \times 10^{-2}$
0.0121	0.0017	-0.003	$4.13 \times 10^{-2}$	$1.95 \times 10^{-41}$	$4.13 \times 10^{-2}$
0.0134	0.0010	-0.002	$5.25 \times 10^{-2}$	$7.78 \times 10^{-19}$	$5.25 \times 10^{-2}$
0.0150	0.0006	-0.001	$6.06 \times 10^{-2}$	$2.83 \times 10^{-5}$	$6.07 \times 10^{-2}$
0.0165	0.0006	0.000	$6.36 \times 10^{-2}$	$9.36 \times 10^{-1}$	$1.00 \times 10^0$
0.0178	0.0003	0.001	$6.06 \times 10^{-2}$	$2.83 \times 10^{-5}$	$6.07 \times 10^{-2}$
0.0191	0.0005	0.002	$5.25 \times 10^{-2}$	$7.78 \times 10^{-19}$	$5.25 \times 10^{-2}$
0.0206	0.0000	0.003	$4.13 \times 10^{-2}$	$1.95 \times 10^{-41}$	$4.13 \times 10^{-2}$
0.0224	0.0000	0.004	$2.95 \times 10^{-2}$	$4.46 \times 10^{-73}$	$2.95 \times 10^{-2}$
0.0242	0.0000	0.005	$1.92 \times 10^{-2}$	$9.30 \times 10^{-114}$	$1.92 \times 10^{-2}$
0.0255	0.0000	0.006	$1.13 \times 10^{-2}$	$1.77 \times 10^{-163}$	$1.13 \times 10^{-2}$
0.0272	0.0000	0.007	$6.05 \times 10^{-3}$	$3.06 \times 10^{-222}$	$6.05 \times 10^{-3}$

0.0289	0.0000	0.008	$2.94 \times 10^{-3}$	$4.82 \times 10^{-290}$	$2.94 \times 10^{-3}$
0.0306	0.0000	0.009	$1.30 \times 10^{-3}$	$0.00 \times 10^0$	$1.30 \times 10^{-3}$
0.0326	0.0000	0.010	$5.23 \times 10^{-4}$	$0.00 \times 10^0$	$5.23 \times 10^{-4}$
0.0348	0.0000	0.011	$1.91 \times 10^{-4}$	$0.00 \times 10^0$	$1.91 \times 10^{-4}$
0.0380	0.0000	0.012	$6.32 \times 10^{-5}$	$0.00 \times 10^0$	$6.32 \times 10^{-5}$
		0.013	$1.90 \times 10^{-5}$	$0.00 \times 10^0$	$1.90 \times 10^{-5}$
		0.014	$5.21 \times 10^{-6}$	$0.00 \times 10^0$	$5.21 \times 10^{-6}$
		0.015	$1.29 \times 10^{-6}$	$0.00 \times 10^0$	$1.29 \times 10^{-6}$
		0.016	$2.92 \times 10^{-7}$	$0.00 \times 10^0$	$2.92 \times 10^{-7}$
		0.017	$5.99 \times 10^{-8}$	$0.00 \times 10^0$	$5.99 \times 10^{-8}$
		0.018	$1.12 \times 10^{-8}$	$0.00 \times 10^0$	$1.12 \times 10^{-8}$
		0.019	$1.89 \times 10^{-9}$	$0.00 \times 10^0$	$1.89 \times 10^{-9}$
		0.020	$2.90 \times 10^{-10}$	$0.00 \times 10^0$	$2.90 \times 10^{-10}$
		0.021	$4.05 \times 10^{-11}$	$0.00 \times 10^0$	$4.05 \times 10^{-11}$
		0.022	$5.14 \times 10^{-12}$	$0.00 \times 10^0$	$5.14 \times 10^{-12}$
		0.023	$5.92 \times 10^{-13}$	$0.00 \times 10^0$	$5.92 \times 10^{-13}$
		0.024	$6.20 \times 10^{-14}$	$0.00 \times 10^0$	$6.20 \times 10^{-14}$
		0.025	$5.90 \times 10^{-15}$	$0.00 \times 10^0$	$5.90 \times 10^{-15}$
		0.026	$5.10 \times 10^{-16}$	$0.00 \times 10^0$	$5.10 \times 10^{-16}$
		0.027	$4.00 \times 10^{-17}$	$0.00 \times 10^0$	$4.00 \times 10^{-17}$
		0.028	$2.85 \times 10^{-18}$	$0.00 \times 10^0$	$2.85 \times 10^{-18}$
		0.029	$1.85 \times 10^{-19}$	$0.00 \times 10^0$	$1.85 \times 10^{-19}$
		0.030	$1.09 \times 10^{-20}$	$0.00 \times 10^0$	$1.09 \times 10^{-20}$
		0.031	$5.82 \times 10^{-22}$	$0.00 \times 10^0$	$5.82 \times 10^{-22}$
		0.032	$2.82 \times 10^{-23}$	$0.00 \times 10^0$	$2.82 \times 10^{-23}$
		0.033	$1.25 \times 10^{-24}$	$0.00 \times 10^0$	$1.25 \times 10^{-24}$
		0.034	$4.99 \times 10^{-26}$	$0.00 \times 10^0$	$4.99 \times 10^{-26}$
		0.035	$1.82 \times 10^{-27}$	$0.00 \times 10^0$	$1.82 \times 10^{-27}$
		0.036	$6.01 \times 10^{-29}$	$0.00 \times 10^0$	$6.01 \times 10^{-29}$
		0.037	$1.81 \times 10^{-30}$	$0.00 \times 10^0$	$1.81 \times 10^{-30}$
		0.038	$4.93 \times 10^{-32}$	$0.00 \times 10^0$	$4.93 \times 10^{-32}$
		0.039	$1.22 \times 10^{-33}$	$0.00 \times 10^0$	$1.22 \times 10^{-33}$
		0.040	$2.75 \times 10^{-35}$	$0.00 \times 10^0$	$2.75 \times 10^{-35}$