

## APPENDIX

Values of  $\log_{10} U_t/Q_H$  in terms of  $\log_{10} P_{Hx}$  for spherical particles – see page 52

i.e. within the table are values of  $\log_{10} U_t/Q_H$  which correspond to the values of  $\log_{10} P_{Hx}$  given by the left hand column, with the second decimal place coming from the scale on the top row, interpolation may be used for the third decimal place.

$\log P_{Hx}$	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
-0.2	-1.780									
-0.1	-1.580	-1.600	-1.620	-1.640	-1.660	-1.680	-1.700	-1.720	-1.740	-1.760
-0.0	-1.382	-1.402	-1.422	-1.442	-1.461	-1.481	-1.501	-1.521	-1.541	-1.560
0.0	-1.382	-1.362	-1.343	-1.323	-1.303	-1.283	-1.264	-1.244	-1.225	-1.205
0.1	-1.185	-1.166	-1.146	-1.126	-1.106	-1.087	-1.068	-1.048	-1.029	-1.010
0.2	-0.990	-0.971	-0.952	-0.932	-0.912	-0.893	-0.874	-0.855	-0.836	-0.817
0.3	-0.799	-0.780	-0.762	-0.743	-0.725	-0.707	-0.688	-0.670	-0.652	-0.634
0.4	-0.616	-0.598	-0.580	-0.562	-0.544	-0.527	-0.510	-0.492	-0.475	-0.457
0.5	-0.440	-0.423	-0.406	-0.389	-0.373	-0.357	-0.341	-0.325	-0.308	-0.292
0.6	-0.276	-0.260	-0.245	-0.229	-0.213	-0.198	-0.183	-0.168	-0.153	-0.138
0.7	-0.123	-0.109	-0.095	-0.080	-0.066	-0.052	-0.038	-0.024	-0.011	0.003
0.8	0.017	0.030	0.043	0.057	0.070	0.083	0.096	0.109	0.122	0.135
0.9	0.148	0.161	0.173	0.186	0.199	0.211	0.224	0.236	0.248	0.261
1.0	0.273	0.285	0.297	0.309	0.321	0.333	0.345	0.356	0.368	0.380
1.1	0.391	0.402	0.414	0.425	0.436	0.447	0.458	0.469	0.480	0.491
1.2	0.502	0.513	0.523	0.534	0.545	0.555	0.565	0.576	0.586	0.596
1.3	0.607	0.617	0.627	0.637	0.647	0.657	0.667	0.677	0.686	0.696
1.4	0.706	0.715	0.725	0.734	0.744	0.753	0.762	0.772	0.781	0.790
1.5	0.800	0.809	0.818	0.827	0.836	0.844	0.853	0.862	0.870	0.879
1.6	0.887	0.895	0.904	0.912	0.920	0.928	0.936	0.944	0.951	0.959
1.7	0.967	0.974	0.981	0.989	0.996	1.004	1.011	1.018	1.026	1.031
1.8	1.040	1.048	1.055	1.062	1.069	1.076	1.083	1.090	1.097	1.104
1.9	1.111	1.118	1.125	1.132	1.139	1.146	1.153	1.160	1.167	1.174
2.0	1.180	1.187	1.194	1.200	1.207	1.214	1.220	1.227	1.233	1.240
2.1	1.246	1.253	1.259	1.265	1.272	1.278	1.284	1.290	1.296	1.302
2.2	1.307	1.313	1.319	1.324	1.329	1.335	1.340	1.345	1.350	1.355
2.3	1.360	1.364	1.369	1.374	1.378	1.383	1.388	1.392	1.397	1.401
2.4	1.406	1.411	1.415	1.420	1.424	1.428	1.433	1.437	1.441	1.445
2.5	1.450	1.454	1.458	1.462	1.466	1.470	1.474	1.478	1.482	1.486
2.6	1.490	1.494	1.498	1.502	1.506	1.510	1.514	1.518	1.521	1.525
2.7	1.529	1.533	1.537	1.541	1.545	1.549	1.553	1.557	1.561	1.565
2.8	1.569	1.573	1.578	1.582	1.586	1.590	1.594	1.598	1.603	1.607
2.9	1.611	1.616	1.620	1.624	1.629	1.633	1.637	1.642	1.646	1.651
3.0	1.655	1.660	1.665	1.669	1.674	1.679	1.684	1.689	1.694	1.698
3.1	1.703	1.708	1.713	1.718	1.724	1.729	1.734	1.740	1.746	1.751
3.2	1.757	1.763	1.770	1.776	1.782	1.788	1.795	1.801	1.808	1.814
3.3	1.821	1.828	1.834	1.841	1.848	1.854	1.861	1.868	1.875	1.881

Values of  $\log_{10} P_{Hx}$  in terms of  $\log_{10} U_t/Q_H$  for spherical particles

i.e. within the table are values of  $\log_{10} P_{Hx}$  which correspond to the values of  $\log_{10} U_t/Q_H$  given by the left hand column, with the second decimal place coming from the scale on the top row, interpolation may be used for the third decimal place.

$\log U_t/Q_H$	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
-1.7	-0.160									
-1.6	-0.110	-0.115	-0.120	-0.125	-0.130	-0.135	-0.140	-0.145	-0.150	-0.155
-1.5	-0.060	-0.065	-0.070	-0.075	-0.080	-0.085	-0.900	-0.095	-0.100	-0.105
-1.4	-0.009	-0.014	-0.019	-0.024	-0.029	-0.034	-0.040	-0.045	-0.050	-0.055
-1.3	0.041	0.036	0.031	0.026	0.021	0.016	0.011	0.006	0.001	-0.004
-1.2	0.093	0.087	0.082	0.077	0.072	0.067	0.062	0.057	0.052	0.046
-1.1	0.143	0.138	0.133	0.128	0.123	0.118	0.113	0.108	0.103	0.098
-1.0	0.195	0.190	0.185	0.179	0.174	0.169	0.164	0.159	0.154	0.148
-0.9	0.246	0.241	0.236	0.231	0.226	0.221	0.216	0.211	0.206	0.200
-0.8	0.299	0.293	0.288	0.283	0.278	0.272	0.267	0.262	0.257	0.252
-0.7	0.354	0.348	0.343	0.337	0.332	0.326	0.321	0.316	0.310	0.305
-0.6	0.409	0.404	0.398	0.392	0.387	0.382	0.376	0.370	0.364	0.359
-0.5	0.465	0.460	0.454	0.448	0.442	0.437	0.432	0.426	0.420	0.414
-0.4	0.524	0.518	0.512	0.506	0.500	0.494	0.488	0.483	0.477	0.471
-0.3	0.585	0.579	0.573	0.567	0.561	0.555	0.548	0.542	0.536	0.530
-0.2	0.649	0.642	0.636	0.629	0.623	0.616	0.610	0.604	0.597	0.591
-0.1	0.716	0.709	0.702	0.695	0.688	0.682	0.675	0.668	0.662	0.656
-0.0	0.781	0.773	0.766	0.759	0.752	0.745	0.738	0.730	0.723	
0.0	0.788	0.795	0.802	0.810	0.818	0.825	0.832	0.840	0.848	0.856
0.1	0.863	0.871	0.879	0.886	0.894	0.902	0.910	0.917	0.925	0.933
0.2	0.941	0.949	0.957	0.965	0.973	0.981	0.989	0.997	1.006	1.014
0.3	1.022	1.031	1.039	1.048	1.056	1.064	1.073	1.082	1.090	1.099
0.4	1.108	1.117	1.126	1.135	1.144	1.153	1.162	1.171	1.180	1.189
0.5	1.198	1.208	1.217	1.227	1.236	1.245	1.255	1.265	1.274	1.284
0.6	1.294	1.303	1.313	1.323	1.333	1.343	1.353	1.363	1.373	1.384
0.7	1.394	1.404	1.415	1.425	1.436	1.446	1.457	1.468	1.479	1.490
0.8	1.500	1.511	1.522	1.533	1.545	1.557	1.568	1.580	1.592	1.604
0.9	1.616	1.628	1.640	1.652	1.665	1.678	1.691	1.704	1.718	1.731
1.0	1.745	1.759	1.773	1.786	1.800	1.813	1.827	1.841	1.855	1.870
1.1	1.884	1.899	1.913	1.927	1.941	1.956	1.970	1.985	2.000	2.015
1.2	2.030	2.045	2.060	2.075	2.090	2.106	2.122	2.138	2.154	2.170
1.3	2.187	2.204	2.222	2.241	2.260	2.280	2.300	2.321	2.343	2.365
1.4	2.387	2.409	2.431	2.454	2.477	2.500	2.524	2.549	2.574	2.600
1.5	2.626	2.651	2.677	2.703	2.728	2.753	2.778	2.803	2.827	2.851
1.6	2.874	2.897	2.920	2.943	2.966	2.988	3.010	3.032	3.053	3.073
1.7	3.093	3.113	3.133	3.152	3.170	3.188	3.204	3.220	3.236	3.252
1.8	3.268	3.283	3.298	3.313	3.328	3.343	3.358	3.373	3.388	3.402