

## Tables

depth (m)	He	Ne	Ar	Kr	Xe	<sup>3</sup> He / <sup>4</sup> He
0,25	1,103 +/- 0,018	1,040 +/- 0,005	1,030 +/- 0,006	1,010 +/- 0,007	1,050 +/- 0,016	1,457 +/- 0,111
0,25	1,124 +/- 0,005	1,010 +/- 0,011	1,020 +/- 0,005	0,998 +/- 0,008	1,040 +/- 0,013	1,782 +/- 0,136
1,25	1,099 +/- 0,005	0,994 +/- 0,004	1,000 +/- 0,006	0,995 +/- 0,004	1,030 +/- 0,010	1,558 +/- 0,103
2,25	1,101 +/- 0,006	0,999 +/- 0,011	0,994 +/- 0,005	1,000 +/- 0,008	1,040 +/- 0,014	1,754 +/- 0,133
2,25	1,160 +/- 0,006	1,010 +/- 0,011	1,010 +/- 0,005	0,992 +/- 0,009	1,020 +/- 0,012	1,857 +/- 0,141
2,75	1,134 +/- 0,005	1,010 +/- 0,011	1,010 +/- 0,005	1,010 +/- 0,008	1,030 +/- 0,014	2,383 +/- 0,181
3,25	1,132 +/- 0,014	0,976 +/- 0,005	0,997 +/- 0,006	0,993 +/- 0,004	0,997 +/- 0,014	2,478 +/- 0,189
3,75	1,155 +/- 0,006	1,010 +/- 0,011	1,000 +/- 0,005	0,984 +/- 0,009	1,020 +/- 0,012	2,073 +/- 0,158
4,25	1,137 +/- 0,004	0,994 +/- 0,011	0,982 +/- 0,005	0,961 +/- 0,010	0,934 +/- 0,011	1,820 +/- 0,138
ASW conc. (ccSTP/g)	3,92E-08	1,72E-07	3,53E-04	8,58E-08	1,26E-08	1,36E-06

**Table 1:** Overview of all noble gas concentrations and He isotope ratios, normalized to the respective ASW concentrations (T=3 °C, S=35 ‰) and with absolute errors. Ne-Xe are of atmospheric origin, thus the values are closer to 1 than for He, which is partly of mantle origin. In the bottom row, the absolute values of ASW concentration for each gas species are given.

The given experimental errors of NG concentrations account for the overall error of the experimental procedure, and also account for the reproducibility of the air calibration standard ( $\leq 1.5\%$ ). The typical error of <sup>3</sup>He/<sup>4</sup>He ratios is in the order of about 10 %, which is dominated by the counting statistics of the very low <sup>3</sup>He abundance of the samples.