Table S8: SNR Analysis

Ion	Frequency [kHz]	Lower limit [s]	Time max signal [s]	Upper limit [s]	Height (H) [a.u.]	Noise RMS [a.u.]	SNR= H/(RMS)
Cl^-	1000	164.67	176.80	178.89	3314.09	187.70	17.66
	800	163.00	177.80	180.26	2762.92	60.21	45.89
	600	162.47	176.77	179.23	1816.51	99.27	18.30
NO_3^-	1000	176.31	185.89	188.29	3421.23	187.70	18.23
	800	175.47	187.21	189.47	3353.40	60.21	55.69
	600	175.33	186.01	188.35	2227.65	99.27	22.44
SO_4^{2-}	1000	207.40	220.22	222.98	2980.58	187.70	15.88
	800	208.03	222.28	224.78	2960.08	60.21	49.16
	600	207.50	220.87	223.31	1868.92	99.27	18.83
K^+	1000	156.17	158.86	164.02	1910.35	151.25	12.63
	800	157.46	160.23	164.84	1267.54	63.88	19.84
	600	158.52	161.17	165.31	766.18	98.41	7.79
Ca^{2+}	1000	202.23	204.30	211.83	3294.07	151.25	21.78
	800	204.02	206.40	212.86	2178.11	63.88	34.10
	600	205.45	208.02	213.98	1302.66	98.41	13.24
Mg^{2+}	1000	223.28	226.72	235.71	2346.95	151.25	15.52
	800	224.81	229.38	237.01	1609.23	63.88	25.19
	600	226.57	231.37	238.03	968.23	98.41	9.84