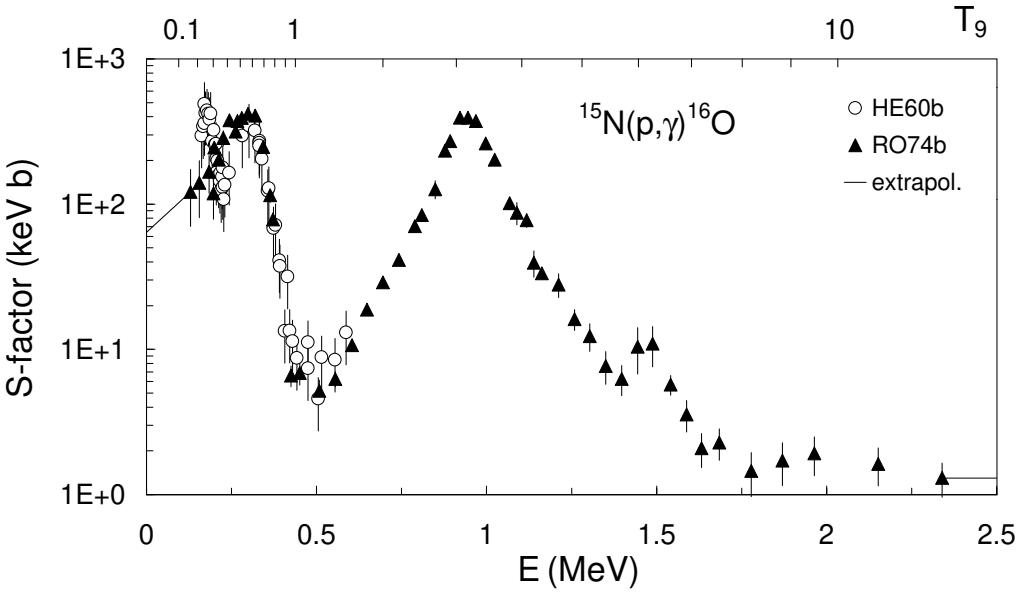
Reaction : $^{15}N(p,\gamma)^{16}O$

Cross section data from HE60b and RO74b are available. The data of HE60b are omitted in the calculation of the rates, because they are in disagreement with RO74b and with the resonance data of SC52 and RE82. For the extrapolation to low energies, the S-factor is interpolated linearly between $S_0 = 64 \pm 6$ keV b [RO74b] and the lowest energy data point. This procedure is consistent with the RO74b extrapolation. Above $E = 2.3$ MeV, the S-factor is assumed to be a constant, and equal to its value at the last data point. No resonance parameters are needed for the calculation. The differences between the present rates and those from CA88 are most likely due to the use of HE60b data by CA88.



T_9	low	adopt	high	exp	ratio	T_9	low	adopt	high	exp	ratio	T_9	low	adopt	high	exp	ratio
0.007	5.85	7.01	8.17	-25	1.1	0.08	2.34	3.63	4.91	-6	1.3	0.7	0.96	1.07	1.17	2	0.5
0.008	1.73	2.08	2.44	-23	1.1	0.09	0.86	1.36	1.85	-5	1.3	0.8	1.52	1.68	1.85	2	0.5
0.009	3.02	3.67	4.32	-22	1.1	0.1	2.64	4.23	5.81	-5	1.3	0.9	2.23	2.46	2.70	2	0.5
0.01	3.54	4.33	5.12	-21	1.1	0.11	0.71	1.15	1.58	-4	1.3	1	3.17	3.50	3.83	2	0.6
0.011	3.05	3.75	4.46	-20	1.1	0.12	1.71	2.78	3.84	-4	1.3	1.25	7.27	7.96	8.65	2	0.6
0.012	2.05	2.54	3.03	-19	1.1	0.13	3.81	6.16	8.51	-4	1.4	1.5	1.54	1.67	1.81	3	0.7
0.013	1.13	1.40	1.68	-18	1.1	0.14	0.79	1.27	1.75	-3	1.4	1.75	2.84	3.09	3.34	3	0.7
0.014	5.23	6.55	7.87	-18	1.1	0.15	1.56	2.46	3.36	-3	1.4	2	4.64	5.05	5.45	3	0.7
0.015	2.11	2.66	3.20	-17	1.1	0.16	2.92	4.53	6.13	-3	1.4	2.5	0.92	1.00	1.08	4	0.7
0.016	7.56	9.56	11.6	-17	1.1	0.18	0.91	1.35	1.79	-2	1.3	3	1.42	1.55	1.68	4	0.7
0.018	7.21	9.22	11.2	-16	1.2	0.2	2.49	3.52	4.55	-2	1.2	3.5	1.89	2.06	2.23	4	0.8
0.02	5.03	6.50	7.96	-15	1.2	0.25	1.90	2.44	2.97	-1	0.9	4	2.09	2.27	2.46	4	0.7
0.025	2.46	3.25	4.03	-13	1.2	0.3	0.87	1.05	1.23	0	0.7	5	2.40	2.61	2.81	4	0.7
0.03	4.76	6.41	8.06	-12	1.2	0.35	2.71	3.17	3.63	0	0.6	6	2.64	2.86	3.08	4	0.7
0.04	3.55	4.96	6.36	-10	1.2	0.4	6.51	7.48	8.44	0	0.6	7	2.83	3.06	3.29	4	0.7
0.05	0.76	1.09	1.43	-8	1.3	0.45	1.32	1.49	1.67	1	0.5	8	2.99	3.23	3.47	4	0.8
0.06	0.78	1.16	1.53	-7	1.3	0.5	2.30	2.58	2.87	1	0.5	9	3.13	3.37	3.62	4	0.8
0.07	5.04	7.64	10.2	-7	1.3	0.6	5.28	5.90	6.51	1	0.5	10	3.26	3.51	3.76	4	0.9