

RR_UNC - Calculate uncertainties in reaction rates

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Reference x.s. file : ..\IRDF-II.g725
 Source spectrum file : U235th-B71.g
 Reaction rate integ.flag : 1
 Reaction rate norm. flag : 1

Spectrum MAT No. : 9278
 Spectrum Integral : 9.999E-01
 Spectrum average energy [eV] : 2.031E+06
 Spectrum peak energy [eV] : 7.397E+05
 Reaction rate RR = average cross-section

No.	Mat.	MT	E (50%) [MeV]	<RR>	+/-	Unc	Unc. x.s. [%]	Unc. Sp. [%]	Unc. Total [%]
3	3000	205	2.74243	4.4387E+01	+/-	2.168E+00	1.22	4.73	4.88
4	3000	207	3.68564	5.5606E+01	+/-	3.580E+00	4.13	4.94	6.44
7	3006	105	0.67213	3.2256E+02	+/-	1.080E+01	0.90	3.23	3.35
8	3006	205	0.67213	3.2256E+02	+/-	1.080E+01	0.90	3.23	3.35
9	3006	207	1.58767	4.7012E+02	+/-	3.014E+01	6.30	1.18	6.41
12	3007	205	5.91036	2.1540E+01	+/-	2.742E+00	2.48	12.49	12.73
13	3007	207	5.9099	2.1560E+01	+/-	2.747E+00	2.48	12.50	12.74
16	5000	101	1.28771	9.8683E+01	+/-	1.648E+00	0.00	1.67	1.67
17	5000	205	3.5412	9.6933E+00	+/-	1.272E+00	12.34	4.47	13.12
18	5000	207	1.44532	1.0804E+02	+/-	9.416E+00	8.61	1.35	8.72
21	5010	101	1.28629	4.9567E+02	+/-	8.291E+00	0.00	1.67	1.67
22	5010	107	0.92051	4.4051E+02	+/-	4.897E+01	10.85	2.44	11.12
23	5010	205	3.54004	4.8689E+01	+/-	6.387E+00	12.34	4.45	13.12
24	5010	207	1.44065	5.4199E+02	+/-	4.731E+01	8.63	1.33	8.73
25	5010	800	1.80313	1.8675E+02	+/-	4.591E+01	24.58	0.63	24.59
26	5010	801	0.43971	2.5376E+02	+/-	2.383E+01	8.36	4.29	9.39
29	5011	205	12.5856	5.1857E-03	+/-	4.102E-03	16.84	77.28	79.10
30	5011	207	11.197	2.2866E-01	+/-	1.351E-01	13.90	57.41	59.07
31	9019	16	13.7607	6.9531E-03	+/-	6.406E-03	3.10	92.07	92.13
34	11023	16	15.3118	3.0748E-03	+/-	3.498E-03	1.29	113.77	113.77
35	11023	102	1.01101	2.7452E-01	+/-	1.189E-02	3.76	2.14	4.33
36	12000	11024g	8.10359	1.1860E+00	+/-	2.946E-01	0.84	24.82	24.84
37	12024	103	8.10338	1.5013E+00	+/-	3.727E-01	0.84	24.81	24.83
38	13027	16	15.8105	2.5848E-03	+/-	3.143E-03	3.51	121.53	121.58
39	13027	103	5.71475	3.9557E+00	+/-	4.974E-01	2.06	12.40	12.57
40	13027	107	8.43247	7.0726E-01	+/-	1.949E-01	0.75	27.55	27.56
41	13027	11024g	8.43247	7.0726E-01	+/-	1.949E-01	0.75	27.55	27.56
42	13027	13026g	15.6912	2.3632E-03	+/-	2.827E-03	3.71	119.56	119.62
43	13027	13026m	17.3384	2.2157E-04	+/-	3.166E-04	10.32	142.52	142.89
44	14000	13028g	7.07873	5.0574E+00	+/-	9.286E-01	2.53	18.19	18.36
45	14028	103	7.07869	5.4838E+00	+/-	1.007E+00	2.53	18.18	18.36
46	14029	13028g	15.424	3.2177E-03	+/-	3.653E-03	4.38	113.45	113.54
47	15031	103	3.63006	3.5551E+01	+/-	2.367E+00	3.47	5.68	6.66
48	16000	15032g	3.96859	6.4761E+01	+/-	4.475E+00	2.53	6.43	6.91
49	16032	103	3.96858	6.8177E+01	+/-	4.710E+00	2.53	6.43	6.91
52	21045	102	0.5907	4.9116E+00	+/-	4.896E-01	9.16	3.93	9.97
53	22000	21046g	0	9.4321E-01	+/-	1.262E-01	3.18	13.00	13.38
54	22000	21047g	0	1.3505E+00	+/-	8.868E-02	2.78	5.95	6.57
55	22000	21048g	0	2.2243E-01	+/-	5.956E-02	5.62	26.18	26.78
56	22000	22045g	15.8097	3.5064E-04	+/-	4.254E-04	4.42	121.25	121.33
57	22046	16	15.8097	4.2502E-03	+/-	5.157E-03	4.42	121.25	121.33
58	22046	103	5.8882	1.1426E+01	+/-	1.524E+00	3.19	12.95	13.34
59	22047	103	3.64606	1.8137E+01	+/-	1.181E+00	2.78	5.89	6.51
60	22048	103	8.06422	3.0166E-01	+/-	8.071E-02	5.62	26.16	26.76
61	23051	107	9.63324	2.3938E-02	+/-	9.701E-03	3.25	40.40	40.53
62	23051	21048g	9.63324	2.3938E-02	+/-	9.701E-03	3.25	40.40	40.53
63	24000	24051g	14.4824	3.2472E-02	+/-	3.290E-02	2.65	101.28	101.32

66	25055	16	12.6983	2.2509E-01	+/-	1.745E-01	2.62	77.48	77.52
67	25055	102	0.77134	2.8194E+00	+/-	7.877E-01	27.75	3.25	27.94
68	26000	24051g	0	4.9222E+02	+/-	9.967E-03	3.95	19.86	20.25
69	26000	25054g	0	4.5731E+00	+/-	3.648E-01	3.15	7.33	7.98
70	26000	25056g	0	1.0039E+00	+/-	2.121E-01	2.70	20.95	21.13
71	26000	26053g	16.2712	6.8474E-05	+/-	8.721E-05	5.16	127.26	127.36
74	26054	16	16.2712	1.1715E-03	+/-	1.492E-03	5.16	127.26	127.36
75	26054	103	4.30235	7.8240E+01	+/-	6.242E+00	3.15	7.33	7.98
76	26054	107	7.19818	8.4213E-01	+/-	1.705E-01	3.95	19.86	20.25
77	26056	103	7.34916	1.0941E+00	+/-	2.311E-01	2.70	20.95	21.12
80	26058	102	0.73996	2.0221E+00	+/-	2.326E-01	11.13	2.90	11.50
83	27059	16	12.8762	1.9066E-01	+/-	1.524E-01	1.76	79.93	79.95
84	27059	17	19.8292	8.1446E-07	+/-	1.448E-06	43.65	172.30	177.74
85	27059	102	0.91403	4.9072E+00	+/-	2.438E-01	4.12	2.77	4.97
86	27059	103	5.72677	1.4163E+00	+/-	1.922E-01	3.60	13.08	13.57
87	27059	107	8.09077	1.5692E-01	+/-	4.085E-02	3.98	25.73	26.03
88	27059	25056g	8.09077	1.5692E-01	+/-	4.085E-02	3.98	25.73	26.03
89	28000	27058g	0	7.3089E+01	+/-	5.062E+00	1.75	6.70	6.93
90	28000	27060g	0	5.6975E-01	+/-	1.026E-01	1.96	17.89	18.00
91	28000	28057g	14.7347	2.2639E-03	+/-	2.374E-03	1.31	104.86	104.87
92	28058	16	14.7347	3.3255E-03	+/-	3.487E-03	1.31	104.86	104.87
93	28058	103	4.05695	1.0736E+02	+/-	7.436E+00	1.75	6.70	6.93
94	28060	103	6.81583	2.1725E+00	+/-	3.909E-01	1.96	17.89	17.99
95	29000	27060g	7.01859	3.6687E-01	+/-	7.062E-02	3.09	19.00	19.25
96	29000	29062g	13.5992	5.9706E-02	+/-	5.362E-02	1.50	89.79	89.80
97	29000	29064g	0.98308	7.3406E+00	+/-	6.369E-01	8.38	2.26	8.68
100	29063	16	13.5992	8.6342E-02	+/-	7.754E-02	1.50	89.79	89.80
101	29063	102	0.96778	1.0474E+01	+/-	9.230E-01	8.49	2.36	8.81
102	29063	107	7.01859	5.3054E-01	+/-	1.021E-01	3.09	19.00	19.25
103	29065	16	12.4587	3.1783E-01	+/-	2.377E-01	2.00	74.77	74.80
104	30000	29064g	4.04134	1.9120E+01	+/-	1.368E+00	1.73	6.94	7.15
105	30000	29067g	4.44626	3.9533E-02	+/-	4.261E-03	5.50	9.27	10.78
106	30064	103	4.04134	3.8886E+01	+/-	2.782E+00	1.73	6.94	7.15
107	30067	103	4.43442	9.7421E-01	+/-	1.021E-01	5.52	8.91	10.48
110	30068	29067g	14.9963	9.4937E-04	+/-	1.046E-03	15.42	109.09	110.18
111	33075	16	12.702	2.9476E-01	+/-	2.299E-01	6.35	77.75	78.01
112	39089	16	13.6886	1.4919E-01	+/-	1.357E-01	1.36	90.97	90.98
113	40000	40089g	14.1985	4.5765E-02	+/-	4.467E-02	0.94	97.60	97.60
114	40090	16	14.1985	8.8950E-02	+/-	8.682E-02	0.94	97.60	97.60
117	41093	102	0.66729	2.4504E+01	+/-	1.139E+00	2.23	4.07	4.65
118	41093	41093m	2.59155	1.4346E+02	+/-	5.457E+00	2.63	2.75	3.80
119	41093	41092m	11.1418	4.3526E-01	+/-	2.569E-01	0.88	59.01	59.02
120	41093	41094g	0.66729	6.1195E+00	+/-	2.844E-01	2.23	4.07	4.65
121	41093	41094m	0.66729	1.8385E+01	+/-	8.544E-01	2.23	4.07	4.65
122	42000	41092m	5.21422	9.7827E-01	+/-	1.076E-01	3.82	10.32	11.00
123	42092	41092m	5.21422	6.7327E+00	+/-	7.406E-01	3.82	10.32	11.00
124	45103	45103m	2.28155	7.1551E+02	+/-	3.153E+01	3.95	1.95	4.41
127	47109	47110n	0.75027	9.4819E+00	+/-	7.872E-01	7.55	3.45	8.30
130	48000	101	1.00561	6.2926E+01	+/-	1.486E+00	0.00	2.36	2.36
131	49000	49114m	1.2625	8.3444E+00	+/-	5.233E-01	3.02	5.49	6.27
134	49113	102	1.14367	2.1834E+02	+/-	5.344E+00	0.00	2.45	2.45
135	49113	49113m	2.64998	1.5507E+02	+/-	5.072E+00	1.19	3.05	3.27
136	49113	49114g	1.10577	4.3032E+01	+/-	1.778E+00	3.22	2.59	4.13
137	49113	49114m	1.1527	1.7530E+02	+/-	7.166E+00	3.30	2.41	4.09
140	49115	102	1.11237	1.5641E+02	+/-	3.887E+00	0.00	2.49	2.49
141	49115	49115m	2.58932	1.8721E+02	+/-	6.247E+00	1.68	2.88	3.34
142	49115	49114m	11.6003	8.6079E-01	+/-	5.586E-01	5.48	64.66	64.90
143	49115	49116g	1.05555	3.0162E+01	+/-	1.126E+00	2.60	2.68	3.73
144	49115	49116m	1.12617	1.2625E+02	+/-	4.539E+00	2.64	2.44	3.60
145	53127	16	11.3858	1.1315E+00	+/-	7.061E-01	3.24	62.32	62.41
148	57139	102	1.29584	6.7154E+00	+/-	3.612E-01	5.10	1.70	5.38
149	59141	16	11.6478	1.0430E+00	+/-	6.955E-01	12.04	65.59	66.69
152	64000	101	0.81713	9.2743E+01	+/-	3.185E+00	0.00	3.43	3.43
153	69169	16	10.2005	3.7459E+00	+/-	1.718E+00	3.42	45.72	45.85
154	69169	17	17.9042	3.3837E-03	+/-	5.127E-03	6.68	151.39	151.54
157	73181	102	0.84011	8.4486E+01	+/-	5.412E+00	5.48	3.32	6.41
160	74186	102	1.03262	3.3287E+01	+/-	1.147E+00	2.49	2.38	3.45
163	79197	16	10.3434	3.2600E+00	+/-	1.559E+00	1.97	47.77	47.81

164	79197	102	0.74538	7.5773E+01	+/-	2.653E+00	0.52	3.46	3.50
165	80199	80199m	2.96951	2.8551E+02	+/-	1.504E+01	3.68	3.77	5.27
166	82204	82204m	4.86297	1.7760E+01	+/-	1.868E+00	4.66	9.43	10.52
167	83209	16	9.68432	6.2879E+00	+/-	2.469E+00	4.21	39.04	39.26
168	83209	17	17.5975	4.6042E-03	+/-	6.772E-03	6.14	146.94	147.07
171	90232	18	2.86366	7.9956E+01	+/-	5.645E+00	5.79	4.04	7.06
172	90232	102	0.91199	9.1956E+01	+/-	3.739E+00	2.80	2.95	4.07
174	92235	18	1.65767	1.2242E+03	+/-	1.482E+01	1.21	0.11	1.21
177	92238	16	8.06931	1.5163E+01	+/-	3.706E+00	5.10	23.90	24.44
178	92238	18	2.65665	3.1259E+02	+/-	1.137E+01	1.22	3.42	3.64
179	92238	102	0.92835	6.8798E+01	+/-	2.495E+00	1.99	3.03	3.63
182	93237	18	1.98325	1.3560E+03	+/-	2.849E+01	1.69	1.25	2.10
185	94239	18	1.72515	1.7970E+03	+/-	2.272E+01	1.25	0.21	1.26
188	95241	18	2.15062	1.3870E+03	+/-	4.636E+01	2.83	1.79	3.34