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 RR_UNC - Calculate uncertainties in reaction rates
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                  Version Jul. 2019
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 Reference x.s. file      :
..\IRDFF-II.g725
 Source spectrum file     :
..\IRDFF-II_sp.g
 Reaction rate integ.flag :      1
 Reaction rate norm. flag :      1

 Spectrum MAT No.         :   9032
 Spectrum Integral            :  2.177E+02
 Spectrum average energy [eV] :  6.458E+05
 Spectrum peak energy    [eV] :  2.898E-02
 Reaction rate RR = spectrum integral
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No.	Mat.	MT	E(50%) [MeV]	<RR> +/- Unc [mb]	Unc. x.s. [%]	Unc. Sp. [%]	Unc. Total [%]
1	3000	1	4.891-8	2.6713E+06 +/- 8.718E+02	0.00	0.03	0.03
2	3000	2	0.2457	2.9024E+05 +/- 6.397E+01	0.00	0.02	0.02
3	3000	205	4.229-8	2.3682E+06 +/- 1.203E+04	0.51	0.04	0.51
4	3000	207	4.230-8	2.3716E+06 +/- 1.203E+04	0.51	0.04	0.51
5	3006	1	4.269-8	3.1466E+07 +/- 1.127E+04	0.00	0.04	0.04
6	3006	2	0.25199	2.6133E+05 +/- 6.375E+01	0.00	0.02	0.02
7	3006	105	4.226-8	3.1186E+07 +/- 1.585E+05	0.51	0.04	0.51
8	3006	205	4.226-8	3.1186E+07 +/- 1.585E+05	0.51	0.04	0.51
9	3006	207	4.227-8	3.1195E+07 +/- 1.585E+05	0.51	0.04	0.51
10	3007	1	0.254	3.0626E+05 +/- 6.671E+01	0.00	0.02	0.02
11	3007	2	0.24516	2.9261E+05 +/- 6.438E+01	0.00	0.02	0.02
12	3007	205	5.89559	1.2410E+03 +/- 3.076E+01	2.48	0.12	2.48
13	3007	207	7.434-8	4.2590E+03 +/- 1.088E+02	2.56	0.04	2.56
14	5000	1	4.361-8	2.6211E+07 +/- 9.253E+03	0.00	0.04	0.04
15	5000	2	1.981-3	7.9085E+05 +/- 1.387E+02	0.00	0.02	0.02
16	5000	101	4.219-8	2.5403E+07 +/- 9.182E+03	0.00	0.04	0.04
17	5000	205	2.81997	7.0007E+02 +/- 9.522E+01	13.60	0.04	13.60
18	5000	207	4.219-8	2.5401E+07 +/- 1.969E+05	0.77	0.04	0.78
19	5010	1	4.236-8	1.2823E+08 +/- 4.621E+04	0.00	0.04	0.04
20	5010	2	0.06224	5.0257E+05 +/- 8.986E+01	0.00	0.02	0.02
21	5010	101	4.219-8	1.2765E+08 +/- 4.614E+04	0.00	0.04	0.04
22	5010	107	4.219-8	1.2764E+08 +/- 9.893E+05	0.77	0.04	0.78
23	5010	205	2.81853	3.5165E+03 +/- 4.785E+02	13.61	0.04	13.61
24	5010	207	4.219-8	1.2764E+08 +/- 9.893E+05	0.77	0.04	0.78
25	5010	800	4.227-8	8.0519E+06 +/- 6.798E+04	0.84	0.04	0.84
26	5010	801	4.218-8	1.1959E+08 +/- 9.868E+05	0.82	0.04	0.83
27	5011	1	1.302-3	8.6449E+05 +/- 1.525E+02	0.00	0.02	0.02
28	5011	2	1.271-3	8.6252E+05 +/- 1.523E+02	0.00	0.02	0.02
29	5011	205	12.7327	3.4469E-01 +/- 5.870E-02	16.97	1.50	17.03
30	5011	207	11.3051	1.4199E+01 +/- 2.038E+00	14.33	0.85	14.35
31	9019	16	14.0052	4.9726E-01 +/- 1.847E-02	2.96	2.24	3.71
32	11023	1	2.974-3	1.2745E+06 +/- 8.215E+02	0.00	0.06	0.06
33	11023	2	2.963-3	1.2203E+06 +/- 8.196E+02	0.00	0.07	0.07
34	11023	16	15.5415	2.4971E-01 +/- 1.034E-02	1.30	3.93	4.14
35	11023	102	4.386-8	1.8329E+04 +/- 3.924E+02	2.14	0.04	2.14
36	12000	11024g	8.12186	6.8035E+01 +/- 5.959E-01	0.83	0.28	0.88
37	12024	103	8.12155	8.6113E+01 +/- 7.543E-01	0.83	0.28	0.88
38	13027	16	16.136	2.2123E-01 +/- 1.334E-02	3.72	4.75	6.03
39	13027	103	5.70328	2.2739E+02 +/- 4.695E+00	2.06	0.11	2.06
40	13027	107	8.48094	4.0776E+01 +/- 3.266E-01	0.74	0.31	0.80
41	13027	11024g	8.48094	4.0776E+01 +/- 3.266E-01	0.74	0.31	0.80
42	13027	13026g	15.9733	1.9890E-01 +/- 1.197E-02	3.96	4.54	6.02
43	13027	13026m	17.5471	2.2333E-02 +/- 2.965E-03	10.65	7.93	13.28
44	14000	13028g	7.06545	2.8914E+02 +/- 7.350E+00	2.53	0.19	2.54
45	14028	103	7.06539	3.1351E+02 +/- 7.970E+00	2.53	0.19	2.54
46	14029	13028g	16.0117	2.6736E-01 +/- 1.671E-02	4.50	4.34	6.25

68	47	15031	103	3.53091	2.1432E+03	+/- 7.475E+01	3.49	0.06	3.49
69	48	16000	15032g	3.9271	3.8673E+03	+/- 9.817E+01	2.54	0.06	2.54
70	49	16032	103	3.9271	4.0712E+03	+/- 1.033E+02	2.54	0.06	2.54
71	50	21045	1	5.420-7	3.5975E+06	+/- 1.004E+03	0.00	0.03	0.03
72	51	21045	2	1.145-5	2.6455E+06	+/- 8.332E+02	0.00	0.03	0.03
73	52	21045	102	4.210-8	9.0192E+05	+/- 5.689E+04	6.31	0.04	6.31
74	53	22000	21046g	0	5.4404E+01	+/- 1.731E+00	3.18	0.12	3.18
75	54	22000	21047g	0	8.1896E+01	+/- 2.279E+00	2.78	0.05	2.78
76	55	22000	21048g	0	1.2847E+01	+/- 7.143E-01	5.55	0.28	5.56
77	56	22000	22045g	16.1189	2.9923E-02	+/- 1.934E-03	4.41	4.72	6.46
78	57	22046	16	16.1189	3.6270E-01	+/- 2.344E-02	4.41	4.72	6.46
79	58	22046	103	5.86564	6.5892E+02	+/- 2.098E+01	3.18	0.12	3.18
80	59	22047	103	3.53051	1.0995E+03	+/- 3.063E+01	2.79	0.05	2.79
81	60	22048	103	8.1033	1.7420E+01	+/- 9.690E-01	5.56	0.28	5.56
82	61	23051	107	9.74348	1.4246E+00	+/- 4.560E-02	3.16	0.50	3.20
83	62	23051	21048g	9.74348	1.4246E+00	+/- 4.560E-02	3.16	0.50	3.20
84	63	24000	24051g	14.6424	2.4399E+00	+/- 9.612E-02	2.66	2.90	3.94
85	64	25055	1	3.599-4	4.9808E+06	+/- 4.956E+03	0.00	0.10	0.10
86	65	25055	2	3.794-4	4.4082E+06	+/- 4.875E+03	0.00	0.11	0.11
87	66	25055	16	12.808	1.4936E+01	+/- 4.290E-01	2.45	1.50	2.87
88	67	25055	102	4.876-8	4.9006E+05	+/- 7.350E+03	1.50	0.04	1.50
89	68	26000	24051g	0	3.2329E+00	+/- 1.198E-01	3.70	0.17	3.70
90	69	26000	25054g	0	2.7028E+02	+/- 8.573E+00	3.17	0.07	3.17
91	70	26000	25056g	0	5.7630E+01	+/- 1.551E+00	2.68	0.21	2.69
92	71	26000	26053g	16.6469	6.1340E-03	+/- 4.498E-04	4.80	5.55	7.33
93	72	26054	1	8.491-3	1.3036E+06	+/- 8.468E+02	0.00	0.06	0.06
94	73	26054	2	8.650-3	1.1953E+06	+/- 8.435E+02	0.00	0.07	0.07
95	74	26054	16	16.6469	1.0494E-01	+/- 7.696E-03	4.80	5.55	7.33
96	75	26054	103	4.2622	4.6242E+03	+/- 1.467E+02	3.17	0.07	3.17
97	76	26054	107	6.90761	5.5310E+01	+/- 2.049E+00	3.70	0.17	3.70
98	77	26056	103	7.35848	6.2805E+01	+/- 1.690E+00	2.68	0.21	2.69
99	78	26058	1	0.01021	1.5277E+06	+/- 3.841E+02	0.00	0.03	0.03
100	79	26058	2	3.109-3	1.3506E+06	+/- 3.690E+02	0.00	0.03	0.03
101	80	26058	102	4.849-8	4.8337E+04	+/- 2.348E+03	4.86	0.04	4.86
102	81	27059	1	1.308-4	7.2240E+06	+/- 1.161E+04	0.00	0.16	0.16
103	82	27059	2	1.327-4	5.5725E+06	+/- 1.065E+04	0.00	0.19	0.19
104	83	27059	16	12.997	1.2781E+01	+/- 2.909E-01	1.60	1.62	2.28
105	84	27059	17	19.9367	8.9588E-05	+/- 6.430E-05	43.52	57.07	71.77
106	85	27059	102	6.280-8	1.6048E+06	+/- 1.110E+04	0.69	0.07	0.69
107	86	27059	103	5.70184	8.1899E+01	+/- 2.985E+00	3.64	0.11	3.64
108	87	27059	107	8.12711	9.0581E+00	+/- 3.655E-01	4.03	0.27	4.03
109	88	27059	25056g	8.12711	9.0581E+00	+/- 3.655E-01	4.03	0.27	4.03
110	89	28000	27058g	0	4.3546E+03	+/- 7.584E+01	1.74	0.06	1.74
111	90	28000	27060g	0	3.2813E+01	+/- 6.511E-01	1.98	0.17	1.98
112	91	28000	28057g	14.8958	1.7383E-01	+/- 5.961E-03	1.30	3.17	3.43
113	92	28058	16	14.8958	2.5534E-01	+/- 8.756E-03	1.30	3.17	3.43
114	93	28058	103	4.01396	6.3966E+03	+/- 1.114E+02	1.74	0.06	1.74
115	94	28060	103	6.80375	1.2511E+02	+/- 2.483E+00	1.98	0.17	1.98
116	95	29000	27060g	7.00953	2.1121E+01	+/- 6.505E-01	3.07	0.18	3.08
117	96	29000	29062g	13.7941	4.2020E+00	+/- 1.064E-01	1.41	2.10	2.53
118	97	29000	29064g	5.060-8	1.1701E+05	+/- 4.595E+03	3.93	0.05	3.93
119	98	29063	1	2.096-3	1.4315E+06	+/- 4.862E+02	0.00	0.03	0.03
120	99	29063	2	4.754-3	1.2119E+06	+/- 4.528E+02	0.00	0.04	0.04
121	100	29063	16	13.7941	6.0767E+00	+/- 1.539E-01	1.41	2.10	2.53
122	101	29063	102	5.059-8	1.6920E+05	+/- 6.657E+03	3.93	0.05	3.93
123	102	29063	107	7.00953	3.0543E+01	+/- 9.407E-01	3.07	0.18	3.08
124	103	29065	16	12.5846	2.0865E+01	+/- 4.963E-01	1.93	1.38	2.38
125	104	30000	29064g	4.01895	1.1300E+03	+/- 1.967E+01	1.74	0.06	1.74
126	105	30000	29067g	1.300-3	4.9088E+00	+/- 6.539E-01	13.32	0.06	13.32
127	106	30064	103	4.01895	2.2981E+03	+/- 4.001E+01	1.74	0.06	1.74
128	107	30067	103	7.241-4	1.2117E+02	+/- 1.619E+01	13.36	0.06	13.36
129	108	30068	1	5.211-4	2.0315E+06	+/- 3.131E+03	0.00	0.15	0.15
130	109	30068	2	5.210-4	1.9348E+06	+/- 3.072E+03	0.00	0.16	0.16
131	110	30068	29067g	15.371	7.6044E-02	+/- 1.197E-02	15.30	3.70	15.74
132	111	33075	16	12.8091	1.9577E+01	+/- 1.211E+00	6.00	1.52	6.19
133	112	39089	16	13.8763	1.0533E+01	+/- 2.661E-01	1.28	2.18	2.53
134	113	40000	40089g	14.3627	3.3603E+00	+/- 9.398E-02	0.92	2.64	2.80
135	114	40090	16	14.3627	6.5312E+00	+/- 1.827E-01	0.92	2.64	2.80
136	115	41093	1	0.01266	1.5830E+06	+/- 2.918E+02	0.00	0.02	0.02

137	116	41093	2	0.01221	1.4047E+06	+/- 2.590E+02	0.00	0.02	0.02
138	117	41093	102	1.939-4	9.5545E+04	+/- 2.495E+03	2.61	0.06	2.61
139	118	41093	41093m	2.42988	9.5089E+03	+/- 2.508E+02	2.64	0.04	2.64
140	119	41093	41092m	11.2074	2.6943E+01	+/- 3.273E-01	0.86	0.86	1.21
141	120	41093	41094g	1.939-4	2.3861E+04	+/- 6.230E+02	2.61	0.06	2.61
142	121	41093	41094m	1.939-4	7.1684E+04	+/- 1.872E+03	2.61	0.06	2.61
143	122	42000	41092m	5.18161	5.6932E+01	+/- 2.222E+00	3.90	0.09	3.90
144	123	42092	41092m	5.18161	3.9182E+02	+/- 1.529E+01	3.90	0.09	3.90
145	124	45103	45103m	1.98169	5.1188E+04	+/- 2.047E+03	4.00	0.03	4.00
146	125	47109	1	5.118-6	1.2578E+07	+/- 2.350E+04	0.00	0.19	0.19
147	126	47109	2	9.935-5	1.8190E+06	+/- 2.028E+03	0.00	0.11	0.11
148	127	47109	47110n	5.079-6	4.9392E+05	+/- 3.023E+04	6.12	0.20	6.12
149	128	48000	1	7.446-8	1.2821E+08	+/- 4.953E+04	0.00	0.04	0.04
150	129	48000	2	3.883-4	1.7368E+06	+/- 4.499E+02	0.00	0.03	0.03
151	130	48000	101	7.336-8	1.2637E+08	+/- 4.929E+04	0.00	0.04	0.04
152	131	49000	49114m	1.898-6	6.6266E+04	+/- 4.670E+03	7.05	0.12	7.05
153	132	49113	1	1.472-5	3.5459E+06	+/- 2.907E+03	0.00	0.08	0.08
154	133	49113	2	7.779-3	1.2122E+06	+/- 3.020E+02	0.00	0.02	0.02
155	134	49113	102	1.896-6	2.2800E+06	+/- 2.739E+03	0.00	0.12	0.12
156	135	49113	49113m	2.55049	9.9676E+03	+/- 1.190E+02	1.19	0.04	1.19
157	136	49113	49114g	1.894-6	7.3653E+05	+/- 5.241E+04	7.11	0.12	7.12
158	137	49113	49114m	1.897-6	1.5435E+06	+/- 1.088E+05	7.05	0.12	7.05
159	138	49115	1	1.425-6	2.5907E+07	+/- 4.132E+04	0.00	0.16	0.16
160	139	49115	2	1.184-5	1.7273E+06	+/- 1.662E+03	0.00	0.10	0.10
161	140	49115	102	1.414-6	2.4118E+07	+/- 3.968E+04	0.00	0.16	0.16
162	141	49115	49115m	2.47986	1.2128E+04	+/- 2.050E+02	1.69	0.04	1.69
163	142	49115	49114m	11.6994	5.4301E+01	+/- 2.905E+00	5.25	1.01	5.35
164	143	49115	49116g	1.414-6	5.0646E+06	+/- 1.148E+05	2.26	0.16	2.27
165	144	49115	49116m	1.414-6	1.9053E+07	+/- 4.319E+05	2.26	0.16	2.27
166	145	53127	16	11.4721	7.0795E+01	+/- 2.329E+00	3.15	0.94	3.29
167	146	57139	1	1.948-5	2.1845E+06	+/- 5.018E+02	0.00	0.02	0.02
168	147	57139	2	7.316-5	1.7425E+06	+/- 3.527E+02	0.00	0.02	0.02
169	148	57139	102	5.232-8	3.4948E+05	+/- 1.436E+04	4.11	0.06	4.11
170	149	59141	16	11.7463	6.5973E+01	+/- 7.691E+00	11.61	1.03	11.66
171	150	64000	1	3.060-8	1.1428E+09	+/- 4.975E+05	0.00	0.04	0.04
172	151	64000	2	5.667-8	6.4159E+06	+/- 1.859E+03	0.00	0.03	0.03
173	152	64000	101	3.051-8	1.1362E+09	+/- 4.959E+05	0.00	0.04	0.04
174	153	69169	16	10.2705	2.2481E+02	+/- 7.638E+00	3.34	0.61	3.40
175	154	69169	17	17.9623	3.6447E-01	+/- 4.254E-02	6.61	9.62	11.67
176	155	73181	1	1.029-5	6.6805E+06	+/- 7.319E+03	0.00	0.11	0.11
177	156	73181	2	2.721-4	2.1732E+06	+/- 1.130E+03	0.00	0.05	0.05
178	157	73181	102	4.405-6	4.2916E+06	+/- 1.385E+05	3.22	0.16	3.23
179	158	74186	1	1.867-5	2.1907E+07	+/- 6.163E+04	0.00	0.28	0.28
180	159	74186	2	1.872-5	1.7891E+07	+/- 5.346E+04	0.00	0.30	0.30
181	160	74186	102	1.827-5	3.8349E+06	+/- 9.524E+04	2.47	0.21	2.48
182	161	79197	1	4.852-6	1.4469E+07	+/- 2.721E+04	0.00	0.19	0.19
183	162	79197	2	6.140-5	3.1162E+06	+/- 3.064E+03	0.00	0.10	0.10
184	163	79197	16	10.4182	1.9671E+02	+/- 3.994E+00	1.93	0.64	2.03
185	164	79197	102	4.806-6	1.1203E+07	+/- 1.781E+05	1.57	0.22	1.59
186	165	80199	80199m	2.80671	1.8088E+04	+/- 6.645E+02	3.67	0.04	3.67
187	166	82204	82204m	4.84345	1.0304E+03	+/- 4.799E+01	4.66	0.08	4.66
188	167	83209	16	9.74245	3.7100E+02	+/- 1.540E+01	4.12	0.50	4.15
189	168	83209	17	17.714	4.8023E-01	+/- 5.054E-02	5.98	8.66	10.52
190	169	90232	1	1.703-4	3.4676E+06	+/- 1.552E+03	0.00	0.04	0.04
191	170	90232	2	3.298-4	2.5182E+06	+/- 8.543E+02	0.00	0.03	0.03
192	171	90232	18	2.74602	4.9821E+03	+/- 2.886E+02	5.79	0.05	5.79
193	172	90232	102	2.333-5	7.2925E+05	+/- 1.024E+04	1.40	0.13	1.40
194	173	92235	1	4.642-8	2.5086E+07	+/- 8.439E+03	0.00	0.03	0.03
195	174	92235	18	4.067-8	1.9074E+07	+/- 8.878E+04	0.46	0.04	0.47
196	175	92238	1	3.979-5	4.5113E+06	+/- 4.562E+03	0.00	0.10	0.10
197	176	92238	2	1.825-4	2.8615E+06	+/- 1.828E+03	0.00	0.06	0.06
198	177	92238	16	8.08726	8.6489E+02	+/- 4.415E+01	5.10	0.28	5.10
199	178	92238	18	2.56576	1.9692E+04	+/- 2.410E+02	1.22	0.04	1.22
200	179	92238	102	2.023-5	1.4044E+06	+/- 1.550E+04	1.08	0.24	1.10
201	180	93237	1	4.667-7	1.2742E+07	+/- 5.331E+03	0.00	0.04	0.04
202	181	93237	2	1.689-4	2.2517E+06	+/- 4.174E+02	0.00	0.02	0.02
203	182	93237	18	1.60644	1.0511E+05	+/- 2.137E+03	2.03	0.03	2.03
204	183	94239	1	8.414-8	5.2331E+07	+/- 2.153E+04	0.00	0.04	0.04
205	184	94239	2	1.126-3	1.8287E+06	+/- 3.548E+02	0.00	0.02	0.02

```
206      185 94239      18  6.801-8 3.3911E+07 +/- 4.074E+05      1.20    0.04    1.20
207      186 95241       1  1.601-7 3.4776E+07 +/- 1.589E+04      0.00    0.05    0.05
208      187 95241       2  9.515-4 1.9824E+06 +/- 3.625E+02      0.00    0.02    0.02
209      188 95241      18  4.331-7 2.7498E+05 +/- 4.422E+03      1.61    0.04    1.61
210
211
```