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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.         :   9201
 Spectrum Integral            :  2.318E+02
 Spectrum average energy [eV] :  5.267E+06
 Spectrum peak energy    [eV] :  3.098E-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	1.400-7	9.5888E+05 +/- 1.080E+03	0.00	0.11	0.11
2	3000	2	1.27575	2.9988E+05 +/- 1.047E+02	0.00	0.03	0.03
3	3000	205	5.806-8	6.3498E+05 +/- 3.273E+03	0.49	0.17	0.52
4	3000	207	5.881-8	6.4131E+05 +/- 3.470E+03	0.52	0.16	0.54
5	3006	1	5.794-8	8.3631E+06 +/- 1.392E+04	0.00	0.17	0.17
6	3006	2	0.65343	2.6981E+05 +/- 1.044E+02	0.00	0.04	0.04
7	3006	105	5.486-8	8.0311E+06 +/- 4.275E+04	0.50	0.17	0.53
8	3006	205	5.486-8	8.0311E+06 +/- 4.275E+04	0.50	0.17	0.53
9	3006	207	5.540-8	8.0892E+06 +/- 4.416E+04	0.52	0.17	0.55
10	3007	1	2.17606	3.5074E+05 +/- 1.132E+02	0.00	0.03	0.03
11	3007	2	1.32112	3.0235E+05 +/- 1.053E+02	0.00	0.03	0.03
12	3007	205	14.3314	2.7508E+04 +/- 4.588E+02	1.67	0.03	1.67
13	3007	207	14.3327	2.9586E+04 +/- 9.670E+02	3.27	0.03	3.27
14	5000	1	6.166-8	7.1579E+06 +/- 1.143E+04	0.00	0.16	0.16
15	5000	2	0.08866	5.8382E+05 +/- 2.169E+02	0.00	0.04	0.04
16	5000	101	5.460-8	6.5276E+06 +/- 1.134E+04	0.00	0.17	0.17
17	5000	205	14.2128	3.3419E+03 +/- 2.540E+02	7.60	0.03	7.60
18	5000	207	5.483-8	6.5471E+06 +/- 5.166E+04	0.77	0.17	0.79
19	5010	1	5.554-8	3.3257E+07 +/- 5.705E+04	0.00	0.17	0.17
20	5010	2	0.32069	4.2003E+05 +/- 1.418E+02	0.00	0.03	0.03
21	5010	101	5.457-8	3.2788E+07 +/- 5.697E+04	0.00	0.17	0.17
22	5010	107	5.453-8	3.2767E+07 +/- 2.589E+05	0.77	0.17	0.79
23	5010	205	10.738	1.2212E+04 +/- 9.640E+02	7.89	0.04	7.89
24	5010	207	5.465-8	3.2822E+07 +/- 2.590E+05	0.77	0.17	0.79
25	5010	800	5.495-8	2.0758E+06 +/- 1.797E+04	0.85	0.17	0.87
26	5010	801	5.450-8	3.0691E+07 +/- 2.575E+05	0.82	0.17	0.84
27	5011	1	0.10395	6.7385E+05 +/- 2.397E+02	0.00	0.04	0.04
28	5011	2	0.06618	6.2453E+05 +/- 2.378E+02	0.00	0.04	0.04
29	5011	205	14.7722	1.1381E+03 +/- 2.182E+02	19.17	0.02	19.17
30	5011	207	14.7301	1.9448E+04 +/- 4.347E+03	22.35	0.02	22.35
31	9019	16	14.7934	2.6095E+03 +/- 7.483E+01	2.87	0.02	2.87
32	11023	1	4.537-3	1.0987E+06 +/- 1.458E+03	0.00	0.13	0.13
33	11023	2	3.326-3	9.8093E+05 +/- 1.455E+03	0.00	0.15	0.15
34	11023	16	14.8431	1.9714E+03 +/- 2.999E+01	1.52	0.02	1.52
35	11023	102	6.253-8	5.0304E+03 +/- 1.222E+02	2.42	0.16	2.43
36	12000	11024g	14.6068	1.0482E+04 +/- 6.724E+01	0.64	0.03	0.64
37	12024	103	14.6045	1.3190E+04 +/- 7.076E+01	0.54	0.03	0.54
38	13027	16	14.8678	1.5122E+03 +/- 3.732E+01	2.47	0.02	2.47
39	13027	103	14.3009	6.3624E+03 +/- 8.237E+01	1.29	0.03	1.29
40	13027	107	14.6223	8.3648E+03 +/- 2.947E+01	0.35	0.03	0.35
41	13027	11024g	14.6223	8.3648E+03 +/- 2.947E+01	0.35	0.03	0.35
42	13027	13026g	14.8662	1.4864E+03 +/- 3.715E+01	2.50	0.02	2.50
43	13027	13026m	14.9629	2.5777E+01 +/- 3.994E+00	15.50	0.03	15.50
44	14000	13028g	14.5522	1.9062E+04 +/- 3.145E+02	1.65	0.03	1.65
45	14028	103	14.5504	2.0612E+04 +/- 3.410E+02	1.65	0.03	1.65
46	14029	13028g	14.8382	1.1386E+03 +/- 4.686E+01	4.12	0.02	4.12

68	47	15031	103	11.8855	1.0796E+04	+/- 3.752E+02	3.48	0.04	3.48
69	48	16000	15032g	12.4407	2.5142E+04	+/- 3.233E+02	1.29	0.04	1.29
70	49	16032	103	12.417	2.6401E+04	+/- 3.394E+02	1.28	0.04	1.29
71	50	21045	1	4.304-3	1.9499E+06	+/- 1.586E+03	0.00	0.08	0.08
72	51	21045	2	4.389-3	1.5647E+06	+/- 1.418E+03	0.00	0.09	0.09
73	52	21045	102	5.472-8	2.3252E+05	+/- 1.478E+04	6.35	0.17	6.35
74	53	22000	21046g	14.5477	1.9877E+03	+/- 3.644E+01	1.83	0.03	1.83
75	54	22000	21047g	14.6803	1.3480E+03	+/- 5.004E+01	3.71	0.02	3.71
76	55	22000	21048g	14.6759	3.1593E+03	+/- 8.883E+01	2.81	0.03	2.81
77	56	22000	22045g	14.87	2.0389E+02	+/- 9.934E+00	4.87	0.02	4.87
78	57	22046	16	14.87	2.4714E+03	+/- 1.204E+02	4.87	0.02	4.87
79	58	22046	103	14.4212	2.0940E+04	+/- 4.191E+02	2.00	0.03	2.00
80	59	22047	103	14.3885	1.1349E+04	+/- 3.376E+02	2.97	0.03	2.97
81	60	22048	103	14.6741	4.2571E+03	+/- 1.205E+02	2.83	0.03	2.83
82	61	23051	107	14.7351	1.0657E+03	+/- 1.441E+01	1.35	0.02	1.35
83	62	23051	21048g	14.7351	1.0657E+03	+/- 1.441E+01	1.35	0.02	1.35
84	63	24000	24051g	14.807	1.7762E+04	+/- 4.354E+02	2.45	0.02	2.45
85	64	25055	1	1.671-3	3.5720E+06	+/- 7.679E+03	0.00	0.21	0.21
86	65	25055	2	1.250-3	3.2427E+06	+/- 7.559E+03	0.00	0.23	0.23
87	66	25055	16	14.7542	4.6914E+04	+/- 5.522E+02	1.18	0.02	1.18
88	67	25055	102	8.056-8	1.4439E+05	+/- 2.808E+03	1.94	0.16	1.95
89	68	26000	24051g	14.6721	3.7472E+02	+/- 5.921E+00	1.58	0.03	1.58
90	69	26000	25054g	0	2.0711E+03	+/- 3.307E+01	1.60	0.04	1.60
91	70	26000	25056g	14.6275	7.2735E+03	+/- 7.680E+01	1.06	0.03	1.06
92	71	26000	26053g	14.9003	2.7984E+01	+/- 2.724E+00	9.73	0.02	9.73
93	72	26054	1	0.01414	1.2854E+06	+/- 1.563E+03	0.00	0.12	0.12
94	73	26054	2	0.01002	1.1141E+06	+/- 1.557E+03	0.00	0.14	0.14
95	74	26054	16	14.9003	4.7876E+02	+/- 4.660E+01	9.73	0.02	9.73
96	75	26054	103	12.5271	3.5433E+04	+/- 5.657E+02	1.60	0.04	1.60
97	76	26054	107	14.6721	6.4110E+03	+/- 1.013E+02	1.58	0.03	1.58
98	77	26056	103	14.6266	7.9064E+03	+/- 8.369E+01	1.06	0.03	1.06
99	78	26058	1	0.12713	1.2594E+06	+/- 6.768E+02	0.00	0.05	0.05
100	79	26058	2	0.0522	1.0168E+06	+/- 6.550E+02	0.00	0.06	0.06
101	80	26058	102	8.230-8	1.4448E+04	+/- 6.707E+02	4.64	0.19	4.64
102	81	27059	1	1.338-4	4.0772E+06	+/- 1.675E+04	0.00	0.41	0.41
103	82	27059	2	1.345-4	3.4045E+06	+/- 1.537E+04	0.00	0.45	0.45
104	83	27059	16	14.7591	4.4643E+04	+/- 3.677E+02	0.82	0.02	0.82
105	84	27059	102	1.784-7	5.1415E+05	+/- 3.962E+03	0.72	0.29	0.77
106	85	27059	103	14.5543	3.7527E+03	+/- 6.154E+01	1.64	0.03	1.64
107	86	27059	107	14.6785	2.1589E+03	+/- 4.307E+01	1.99	0.03	1.99
108	87	27059	25056g	14.6785	2.1589E+03	+/- 4.307E+01	1.99	0.03	1.99
109	88	28000	27058g	0	2.7440E+04	+/- 3.594E+02	1.31	0.04	1.31
110	89	28000	27060g	14.5839	2.7700E+03	+/- 2.586E+01	0.93	0.03	0.93
111	90	28000	28057g	14.8181	1.3518E+03	+/- 1.708E+01	1.26	0.02	1.26
112	91	28058	16	14.8181	1.9856E+03	+/- 2.509E+01	1.26	0.02	1.26
113	92	28058	103	11.5548	4.0307E+04	+/- 5.280E+02	1.31	0.04	1.31
114	93	28060	103	14.5783	1.0454E+04	+/- 8.864E+01	0.85	0.03	0.85
115	94	29000	27060g	14.6094	2.1988E+03	+/- 3.353E+01	1.52	0.03	1.52
116	95	29000	29062g	14.7826	2.1295E+04	+/- 2.383E+02	1.12	0.02	1.12
117	96	29000	29064g	5.809-4	5.5161E+04	+/- 1.437E+03	2.60	0.16	2.60
118	97	29063	1	0.07077	1.2153E+06	+/- 8.268E+02	0.00	0.07	0.07
119	98	29063	2	0.03313	9.8922E+05	+/- 7.754E+02	0.00	0.08	0.08
120	99	29063	16	14.7826	3.0796E+04	+/- 3.447E+02	1.12	0.02	1.12
121	100	29063	102	1.033-7	5.4117E+04	+/- 2.056E+03	3.79	0.23	3.80
122	101	29063	107	14.6094	3.1798E+03	+/- 4.849E+01	1.52	0.03	1.52
123	102	29065	16	14.7521	5.7502E+04	+/- 8.283E+02	1.44	0.02	1.44
124	103	30000	29064g	12.8846	8.7011E+03	+/- 1.107E+02	1.27	0.04	1.27
125	104	30000	29067g	14.7547	1.8389E+02	+/- 1.224E+01	6.66	0.02	6.66
126	105	30064	103	12.8842	1.7695E+04	+/- 2.252E+02	1.27	0.04	1.27
127	106	30067	103	14.674	2.5581E+03	+/- 4.716E+01	1.84	0.02	1.84
128	107	30068	1	6.141-3	1.6216E+06	+/- 5.112E+03	0.00	0.32	0.32
129	108	30068	2	9.486-4	1.4277E+06	+/- 5.016E+03	0.00	0.35	0.35
130	109	30068	29067g	14.8257	4.3652E+02	+/- 6.561E+01	15.03	0.02	15.03
131	110	33075	16	14.7555	6.1640E+04	+/- 1.608E+03	2.61	0.02	2.61
132	111	39089	16	14.78	5.6396E+04	+/- 5.395E+02	0.96	0.02	0.96
133	112	40000	40089g	14.7952	2.2355E+04	+/- 1.796E+02	0.80	0.02	0.80
134	113	40090	16	14.7952	4.3450E+04	+/- 3.491E+02	0.80	0.02	0.80
135	114	41093	1	0.29639	1.4130E+06	+/- 4.748E+02	0.00	0.03	0.03
136	115	41093	2	0.15584	1.1303E+06	+/- 4.163E+02	0.00	0.04	0.04

137	116	41093	102	9.524-4	5.2069E+04	+/-	1.342E+03	2.57	0.16	2.58
138	117	41093	41093m	4.83502	1.5322E+04	+/-	4.359E+02	2.84	0.05	2.85
139	118	41093	41092m	14.7076	3.0255E+04	+/-	1.545E+02	0.51	0.03	0.51
140	119	41093	41094g	9.524-4	1.3003E+04	+/-	3.350E+02	2.57	0.16	2.58
141	120	41093	41094m	9.524-4	3.9065E+04	+/-	1.007E+03	2.57	0.16	2.58
142	121	42000	41092m	13.5236	9.6765E+02	+/-	1.116E+01	1.15	0.04	1.15
143	122	42092	41092m	13.5218	6.6584E+03	+/-	7.661E+01	1.15	0.04	1.15
144	123	45103	45103m	5.65805	8.6983E+04	+/-	3.478E+03	4.00	0.04	4.00
145	124	47109	1	5.219-6	5.4646E+06	+/-	3.034E+04	0.00	0.56	0.56
146	125	47109	2	0.02977	1.2982E+06	+/-	2.632E+03	0.00	0.20	0.20
147	126	47109	47110n	5.123-6	1.8067E+05	+/-	1.148E+04	6.31	0.71	6.35
148	127	48000	1	9.694-8	3.7048E+07	+/-	6.561E+04	0.00	0.18	0.18
149	128	48000	2	0.08611	1.2599E+06	+/-	6.655E+02	0.00	0.05	0.05
150	129	48000	101	9.272-8	3.5544E+07	+/-	6.528E+04	0.00	0.18	0.18
151	130	49000	49114m	14.5585	1.0948E+05	+/-	2.557E+03	2.33	0.09	2.34
152	131	49113	1	2.063-3	2.1638E+06	+/-	3.652E+03	0.00	0.17	0.17
153	132	49113	2	0.22023	1.0373E+06	+/-	4.522E+02	0.00	0.04	0.04
154	133	49113	102	1.445-5	9.0220E+05	+/-	3.406E+03	0.00	0.38	0.38
155	134	49113	49113m	5.6151	1.7841E+04	+/-	1.949E+02	1.09	0.05	1.09
156	135	49113	49114g	1.441-5	2.8924E+05	+/-	2.006E+04	6.92	0.38	6.93
157	136	49113	49114m	1.446-5	6.1296E+05	+/-	4.167E+04	6.79	0.38	6.80
158	137	49115	1	1.448-6	8.9490E+06	+/-	4.742E+04	0.00	0.53	0.53
159	138	49115	2	0.11057	1.2117E+06	+/-	1.918E+03	0.00	0.16	0.16
160	139	49115	102	1.430-6	7.5359E+06	+/-	4.553E+04	0.00	0.60	0.60
161	140	49115	49115m	5.53847	2.1390E+04	+/-	3.293E+02	1.54	0.05	1.54
162	141	49115	49114m	14.7278	8.6916E+04	+/-	1.911E+03	2.20	0.03	2.20
163	142	49115	49116g	1.430-6	1.5824E+06	+/-	3.934E+04	2.41	0.60	2.49
164	143	49115	49116m	1.430-6	5.9535E+06	+/-	1.480E+05	2.41	0.60	2.49
165	144	53127	16	14.721	9.6249E+04	+/-	2.201E+03	2.29	0.03	2.29
166	145	57139	1	0.20639	1.5643E+06	+/-	7.264E+02	0.00	0.05	0.05
167	146	57139	2	0.0856	1.2237E+06	+/-	5.275E+02	0.00	0.04	0.04
168	147	57139	102	8.929-8	1.0309E+05	+/-	4.408E+03	4.27	0.27	4.28
169	148	59141	16	14.7283	1.0686E+05	+/-	5.317E+03	4.98	0.03	4.98
170	149	64000	1	3.458-8	2.6380E+08	+/-	6.123E+05	0.00	0.23	0.23
171	150	64000	2	7.664-5	2.6035E+06	+/-	2.418E+03	0.00	0.09	0.09
172	151	64000	101	3.430-8	2.6082E+08	+/-	6.102E+05	0.00	0.23	0.23
173	152	69169	16	14.6891	1.4204E+05	+/-	2.795E+03	1.97	0.03	1.97
174	153	69169	17	15.1679	4.6907E+01	+/-	3.258E+01	69.46	0.05	69.46
175	154	73181	1	1.199-4	3.7904E+06	+/-	9.590E+03	0.00	0.25	0.25
176	155	73181	2	0.01534	1.6405E+06	+/-	1.625E+03	0.00	0.10	0.10
177	156	73181	102	4.478-6	1.7617E+06	+/-	6.038E+04	3.39	0.49	3.43
178	157	74186	1	1.879-5	1.0941E+07	+/-	8.861E+04	0.00	0.81	0.81
179	158	74186	2	1.881-5	9.0566E+06	+/-	7.685E+04	0.00	0.85	0.85
180	159	74186	102	1.846-5	1.5219E+06	+/-	4.837E+04	3.08	0.77	3.18
181	160	79197	1	4.957-6	6.4531E+06	+/-	3.500E+04	0.00	0.54	0.54
182	161	79197	2	3.742-3	2.0687E+06	+/-	3.987E+03	0.00	0.19	0.19
183	162	79197	16	14.6997	1.4510E+05	+/-	1.352E+03	0.93	0.03	0.93
184	163	79197	102	4.845-6	4.0355E+06	+/-	7.516E+04	1.70	0.77	1.86
185	164	80199	80199m	6.86913	4.0304E+04	+/-	1.501E+03	3.72	0.05	3.72
186	165	82204	82204m	10.699	1.0267E+04	+/-	3.797E+02	3.70	0.05	3.70
187	166	83209	16	14.666	1.5837E+05	+/-	3.933E+03	2.48	0.03	2.48
188	167	83209	17	15.102	1.3184E+02	+/-	7.850E+01	59.54	0.04	59.54
189	168	90232	1	0.03996	2.5945E+06	+/-	2.102E+03	0.00	0.08	0.08
190	169	90232	2	0.02241	1.8201E+06	+/-	1.178E+03	0.00	0.06	0.06
191	170	90232	18	14.4841	3.6325E+04	+/-	2.396E+03	6.60	0.03	6.60
192	171	90232	102	2.398-5	3.2358E+05	+/-	4.978E+03	1.49	0.38	1.54
193	172	92235	1	9.588-8	8.0724E+06	+/-	1.041E+04	0.00	0.13	0.13
194	173	92235	18	5.864-8	5.2367E+06	+/-	2.388E+04	0.43	0.16	0.46
195	174	92238	1	2.564-3	3.2518E+06	+/-	6.733E+03	0.00	0.21	0.21
196	175	92238	2	7.124-3	2.0694E+06	+/-	2.661E+03	0.00	0.13	0.13
197	176	92238	16	13.9645	7.1162E+04	+/-	3.659E+03	5.14	0.04	5.14
198	177	92238	18	14.4124	1.1292E+05	+/-	1.399E+03	1.24	0.03	1.24
199	178	92238	102	2.037-5	7.2273E+05	+/-	9.058E+03	1.05	0.68	1.25
200	179	93237	1	8.812-6	5.2835E+06	+/-	6.310E+03	0.00	0.12	0.12
201	180	93237	2	0.02874	1.5868E+06	+/-	6.337E+02	0.00	0.04	0.04
202	181	93237	18	11.9974	2.6657E+05	+/-	3.678E+03	1.38	0.03	1.38
203	182	94239	1	1.729-7	1.6341E+07	+/-	2.723E+04	0.00	0.17	0.17
204	183	94239	2	0.04994	1.4495E+06	+/-	5.639E+02	0.00	0.04	0.04
205	184	94239	18	1.119-7	9.7932E+06	+/-	1.213E+05	1.23	0.18	1.24

```
    185 95241       1  3.069-7 1.1452E+07 +/- 1.952E+04     0.00   0.17   0.17
    186 95241       2  0.06479 1.5303E+06 +/- 5.715E+02     0.00   0.04   0.04
    187 95241      18  10.4358 3.4887E+05 +/- 1.405E+04     4.03   0.04   4.03
```