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1 RR_UNC - Calculate uncertainties in reaction rates
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3 Andrej Trkov, Jozef Stefan Institute, Ljubljana, Slovenia
4 Version Jul. 2019
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6
7 Reference x.s. file      :
8 ..\IRDFF-II.g725
9 Source spectrum file    :
10 ..\IRDFF-II_sp.g
11
12 Reaction rate integ.flag :      1
13 Reaction rate norm. flag :      1
14
15 Spectrum MAT No.       :    9925
16 Spectrum Integral      :    1.128E+00
17 Spectrum average energy [eV] :    5.001E+04
18 Spectrum peak energy [eV] :    2.474E+04
19 Reaction rate RR = spectrum integral

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No.	Mat.	MT	E(50%) [MeV]	<RR> +/- [mb]	Unc	Unc. x.s. [%]	Unc. Sp. [%]	Unc. Total [%]
22	1	3000	1	0.0412	1.2264E+03 +/- 0.000E+00	0.00	0.00	0.00
23	2	3000	2	0.04175	1.1472E+03 +/- 0.000E+00	0.00	0.00	0.00
24	3	3000	205	0.0327	7.9099E+01 +/- 4.038E-01	0.51	0.00	0.51
25	4	3000	207	0.0327	7.9200E+01 +/- 4.038E-01	0.51	0.00	0.51
26	5	3006	1	0.03832	1.9009E+03 +/- 0.000E+00	0.00	0.00	0.00
27	6	3006	2	0.04569	8.5872E+02 +/- 0.000E+00	0.00	0.00	0.00
28	7	3006	105	0.0327	1.0421E+03 +/- 5.320E+00	0.51	0.00	0.51
29	8	3006	205	0.0327	1.0421E+03 +/- 5.320E+00	0.51	0.00	0.51
30	9	3006	207	0.0327	1.0421E+03 +/- 5.320E+00	0.51	0.00	0.51
31	10	3007	1	0.04154	1.1710E+03 +/- 0.000E+00	0.00	0.00	0.00
32	11	3007	2	0.04154	1.1709E+03 +/- 0.000E+00	0.00	0.00	0.00
33	12	3007	207	0.02797	1.0984E-01 +/- 3.592E-03	3.27	0.00	3.27
34	13	5000	1	0.03914	5.6563E+03 +/- 0.000E+00	0.00	0.00	0.00
35	14	5000	2	0.04059	4.9003E+03 +/- 0.000E+00	0.00	0.00	0.00
36	15	5000	101	0.02994	7.5421E+02 +/- 0.000E+00	0.00	0.00	0.00
37	16	5000	205	0.08343	3.1424E-02 +/- 9.202E-03	29.28	0.00	29.28
38	17	5000	207	0.02995	7.5411E+02 +/- 5.581E+00	0.74	0.00	0.74
39	18	5010	1	0.0362	6.5672E+03 +/- 0.000E+00	0.00	0.00	0.00
40	19	5010	2	0.04579	2.7680E+03 +/- 0.000E+00	0.00	0.00	0.00
41	20	5010	101	0.02994	3.7896E+03 +/- 0.000E+00	0.00	0.00	0.00
42	21	5010	107	0.02994	3.7892E+03 +/- 2.804E+01	0.74	0.00	0.74
43	22	5010	205	0.08343	1.5791E-01 +/- 4.624E-02	29.28	0.00	29.28
44	23	5010	207	0.02995	3.7895E+03 +/- 2.804E+01	0.74	0.00	0.74
45	24	5010	800	0.03076	2.4510E+02 +/- 2.597E+00	1.06	0.00	1.06
46	25	5010	801	0.02989	3.5441E+03 +/- 2.792E+01	0.79	0.00	0.79
47	26	5011	1	0.03997	5.4300E+03 +/- 0.000E+00	0.00	0.00	0.00
48	27	5011	2	0.03997	5.4300E+03 +/- 0.000E+00	0.00	0.00	0.00
49	28	11023	1	0.03513	6.1162E+03 +/- 0.000E+00	0.00	0.00	0.00
50	29	11023	2	0.03513	6.1138E+03 +/- 0.000E+00	0.00	0.00	0.00
51	30	11023	102	0.03466	2.3338E+00 +/- 1.789E-01	7.67	0.00	7.67
52	31	15031	103	0.77216	1.9435E-14 +/- 6.676E-15	34.35	0.00	34.35
53	32	16000	15032g	0.97965	1.7597E-20 +/- 0.000E+00	0.00	0.00	0.00
54	33	16032	103	0.97965	1.8526E-20 +/- 0.000E+00	0.00	0.00	0.00
55	34	21045	1	0.03009	1.2842E+04 +/- 0.000E+00	0.00	0.00	0.00
56	35	21045	2	0.03011	1.2761E+04 +/- 0.000E+00	0.00	0.00	0.00
57	36	21045	102	0.02653	7.7426E+01 +/- 5.531E+00	7.14	0.00	7.14
58	37	22000	21047g	0	8.6953E-17 +/- 6.026E-18	6.93	0.00	6.93
59	38	22047	103	0.92713	1.1687E-15 +/- 8.100E-17	6.93	0.00	6.93
60	39	25055	1	0.02744	1.4275E+04 +/- 0.000E+00	0.00	0.00	0.00
61	40	25055	2	0.02744	1.4224E+04 +/- 0.000E+00	0.00	0.00	0.00
62	41	25055	102	0.02062	3.8631E+01 +/- 2.285E+00	5.92	0.00	5.92
63	42	26000	24051g	0	1.2178E-05 +/- 1.187E-06	9.75	0.00	9.75
64	43	26000	25054g	0	7.8908E-13 +/- 5.560E-13	70.46	0.00	70.46
65	44	26054	1	0.01098	1.2278E+04 +/- 0.000E+00	0.00	0.00	0.00
66	45	26054	2	0.01096	1.2247E+04 +/- 0.000E+00	0.00	0.00	0.00
67	46	26054	103	0.45435	1.3500E-11 +/- 9.513E-12	70.46	0.00	70.46

68	47	26054	107	0.02958	2.0836E-04	+/-	2.031E-05	9.75	0.00	9.75
69	48	26058	1	0.04605	1.2395E+04	+/-	0.000E+00	0.00	0.00	0.00
70	49	26058	2	0.04605	1.2379E+04	+/-	0.000E+00	0.00	0.00	0.00
71	50	26058	102	0.03117	1.6614E+01	+/-	2.812E+00	16.92	0.00	16.92
72	51	27059	1	0.02754	1.2545E+04	+/-	0.000E+00	0.00	0.00	0.00
73	52	27059	2	0.02755	1.2505E+04	+/-	0.000E+00	0.00	0.00	0.00
74	53	27059	102	0.02212	3.9804E+01	+/-	9.738E-01	2.45	0.00	2.45
75	54	27059	103	0.83609	4.2443E-18	+/-	3.766E-18	88.74	0.00	88.74
76	55	27059	107	0.37801	7.1922E-12	+/-	6.925E-12	96.28	0.00	96.28
77	56	27059	25056g	0.37801	7.1922E-12	+/-	6.925E-12	96.28	0.00	96.28
78	57	28000	27058g	0	3.5169E-10	+/-	2.377E-11	6.76	0.00	6.76
79	58	28058	103	0.44639	5.1661E-10	+/-	3.491E-11	6.76	0.00	6.76
80	59	29000	29064g	0.02179	5.7355E+01	+/-	5.639E+00	9.83	0.00	9.83
81	60	29063	1	0.03375	1.0045E+04	+/-	0.000E+00	0.00	0.00	0.00
82	61	29063	2	0.03384	9.9625E+03	+/-	0.000E+00	0.00	0.00	0.00
83	62	29063	102	0.02179	8.2943E+01	+/-	8.157E+00	9.83	0.00	9.83
84	63	30000	29064g	0.54299	2.4936E-11	+/-	4.478E-12	17.96	0.00	17.96
85	64	30000	29067g	0.01868	8.7006E-04	+/-	2.175E-04	25.00	0.00	25.00
86	65	30064	103	0.54299	5.0714E-11	+/-	9.108E-12	17.96	0.00	17.96
87	66	30067	103	0.01903	2.1913E-02	+/-	5.478E-03	25.00	0.00	25.00
88	67	30068	1	0.03741	7.4833E+03	+/-	0.000E+00	0.00	0.00	0.00
89	68	30068	2	0.03747	7.4599E+03	+/-	0.000E+00	0.00	0.00	0.00
90	69	41093	1	0.04458	9.6024E+03	+/-	0.000E+00	0.00	0.00	0.00
91	70	41093	2	0.04522	9.3022E+03	+/-	0.000E+00	0.00	0.00	0.00
92	71	41093	102	0.02494	3.0201E+02	+/-	2.506E+00	0.83	0.00	0.83
93	72	41093	41093m	0.09344	3.3956E-01	+/-	2.647E-02	7.80	0.00	7.80
94	73	41093	41094g	0.02494	7.5423E+01	+/-	6.258E-01	0.83	0.00	0.83
95	74	41093	41094m	0.02494	2.2659E+02	+/-	1.880E+00	0.83	0.00	0.83
96	75	45103	45103m	0.1087	3.0261E+00	+/-	9.790E-01	32.35	0.00	32.35
97	76	47109	1	0.04122	9.2364E+03	+/-	0.000E+00	0.00	0.00	0.00
98	77	47109	2	0.04271	8.2454E+03	+/-	0.000E+00	0.00	0.00	0.00
99	78	47109	47110n	0.03578	6.1142E+01	+/-	4.195E+00	6.86	0.00	6.86
100	79	48000	1	0.04182	8.5986E+03	+/-	0.000E+00	0.00	0.00	0.00
101	80	48000	2	0.04243	8.2207E+03	+/-	0.000E+00	0.00	0.00	0.00
102	81	48000	101	0.02932	3.7794E+02	+/-	0.000E+00	0.00	0.00	0.00
103	82	49000	49114m	0.03101	3.3239E+01	+/-	9.182E-01	2.76	0.00	2.76
104	83	49113	1	0.03959	7.7297E+03	+/-	0.000E+00	0.00	0.00	0.00
105	84	49113	2	0.04119	6.7122E+03	+/-	0.000E+00	0.00	0.00	0.00
106	85	49113	102	0.02994	1.0503E+03	+/-	0.000E+00	0.00	0.00	0.00
107	86	49113	49113m	0.43928	1.2287E-06	+/-	2.398E-07	19.52	0.00	19.52
108	87	49113	49114g	0.02705	2.7555E+02	+/-	7.582E+00	2.75	0.00	2.75
109	88	49113	49114m	0.03101	7.7480E+02	+/-	2.140E+01	2.76	0.00	2.76
110	89	49115	1	0.04011	7.5834E+03	+/-	0.000E+00	0.00	0.00	0.00
111	90	49115	2	0.04156	6.7323E+03	+/-	0.000E+00	0.00	0.00	0.00
112	91	49115	102	0.0295	8.4967E+02	+/-	0.000E+00	0.00	0.00	0.00
113	92	49115	49115m	0.38201	1.5230E-05	+/-	7.081E-07	4.65	0.00	4.65
114	93	49115	49116g	0.0295	1.7842E+02	+/-	7.500E+00	4.20	0.00	4.20
115	94	49115	49116m	0.02951	6.7125E+02	+/-	2.821E+01	4.20	0.00	4.20
116	95	57139	1	0.03887	7.3789E+03	+/-	0.000E+00	0.00	0.00	0.00
117	96	57139	2	0.03896	7.3295E+03	+/-	0.000E+00	0.00	0.00	0.00
118	97	57139	102	0.02469	4.7539E+01	+/-	5.733E+00	12.06	0.00	12.06
119	98	64000	1	0.03623	1.2037E+04	+/-	0.000E+00	0.00	0.00	0.00
120	99	64000	2	0.03673	1.0989E+04	+/-	0.000E+00	0.00	0.00	0.00
121	100	64000	101	0.02789	9.6697E+02	+/-	0.000E+00	0.00	0.00	0.00
122	101	73181	1	0.03715	1.2766E+04	+/-	0.000E+00	0.00	0.00	0.00
123	102	73181	2	0.03742	1.0979E+04	+/-	0.000E+00	0.00	0.00	0.00
124	103	73181	102	0.02604	8.4389E+02	+/-	3.176E+01	3.76	0.00	3.76
125	104	74186	1	0.03543	1.4907E+04	+/-	0.000E+00	0.00	0.00	0.00
126	105	74186	2	0.03546	1.4687E+04	+/-	0.000E+00	0.00	0.00	0.00
127	106	74186	102	0.03073	2.0958E+02	+/-	3.907E+00	1.86	0.00	1.86
128	107	79197	1	0.0367	1.4543E+04	+/-	0.000E+00	0.00	0.00	0.00
129	108	79197	2	0.03711	1.3824E+04	+/-	0.000E+00	0.00	0.00	0.00
130	109	79197	102	0.02665	6.8993E+02	+/-	4.787E+00	0.69	0.00	0.69
131	110	80199	80199m	0.57723	6.2402E-08	+/-	9.245E-09	14.82	0.00	14.82
132	111	90232	1	0.03933	1.5663E+04	+/-	0.000E+00	0.00	0.00	0.00
133	112	90232	2	0.03936	1.5002E+04	+/-	0.000E+00	0.00	0.00	0.00
134	113	90232	18	0.05843	1.5054E-03	+/-	1.217E-03	80.81	0.00	80.81
135	114	90232	102	0.02959	5.3504E+02	+/-	7.389E+00	1.38	0.00	1.38
136	115	92235	1	0.03907	1.5439E+04	+/-	0.000E+00	0.00	0.00	0.00

137	116	92235	18	0.03463	2.3320E+03	+/-	2.817E+01	1.21	0.00	1.21
138	117	92238	1	0.03889	1.5214E+04	+/-	0.000E+00	0.00	0.00	0.00
139	118	92238	2	0.03907	1.4613E+04	+/-	0.000E+00	0.00	0.00	0.00
140	119	92238	18	0.04084	9.1919E-02	+/-	5.696E-03	6.20	0.00	6.20
141	120	92238	102	0.02901	4.3997E+02	+/-	6.338E+00	1.44	0.00	1.44
142	121	93237	1	0.0384	1.5609E+04	+/-	0.000E+00	0.00	0.00	0.00
143	122	93237	2	0.03908	1.3063E+04	+/-	0.000E+00	0.00	0.00	0.00
144	123	93237	18	0.0435	1.9273E+01	+/-	4.147E+00	21.52	0.00	21.52
145	124	94239	1	0.03883	1.5451E+04	+/-	0.000E+00	0.00	0.00	0.00
146	125	94239	2	0.0389	1.2473E+04	+/-	0.000E+00	0.00	0.00	0.00
147	126	94239	18	0.03914	1.8692E+03	+/-	2.346E+01	1.25	0.00	1.25
148	127	95241	1	0.03963	1.5590E+04	+/-	0.000E+00	0.00	0.00	0.00
149	128	95241	2	0.04079	1.2955E+04	+/-	0.000E+00	0.00	0.00	0.00
150	129	95241	18	0.03815	1.8208E+01	+/-	7.382E-01	4.05	0.00	4.05
151										
152										