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1 RR_UNC - Calculate uncertainties in reaction rates
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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 Reaction rate integ.flag :      1
12 Reaction rate norm. flag :      1
13
14 Spectrum MAT No.       :    9940
15 Spectrum Integral      :    1.128E+00
16 Spectrum average energy [eV] :    8.001E+04
17 Spectrum peak energy [eV] :    3.899E+04
18 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 [%]
19	1	3000	1	0.07538	1.3648E+03 +/- 0.000E+00	0.00	0.00	0.00
20	2	3000	2	0.07584	1.2867E+03 +/- 0.000E+00	0.00	0.00	0.00
21	3	3000	205	0.06663	7.8048E+01 +/- 4.106E-01	0.53	0.00	0.53
22	4	3000	207	0.06666	7.8127E+01 +/- 4.106E-01	0.53	0.00	0.53
23	5	3006	1	0.08618	2.2454E+03 +/- 0.000E+00	0.00	0.00	0.00
24	6	3006	2	0.10733	1.2170E+03 +/- 0.000E+00	0.00	0.00	0.00
25	7	3006	105	0.06663	1.0283E+03 +/- 5.410E+00	0.53	0.00	0.53
26	8	3006	205	0.06663	1.0283E+03 +/- 5.410E+00	0.53	0.00	0.53
27	9	3006	207	0.06663	1.0283E+03 +/- 5.410E+00	0.53	0.00	0.53
28	10	3007	1	0.07425	1.2924E+03 +/- 0.000E+00	0.00	0.00	0.00
29	11	3007	2	0.07425	1.2924E+03 +/- 0.000E+00	0.00	0.00	0.00
30	12	3007	207	0.04569	8.6195E-02 +/- 3.495E-03	4.05	0.00	4.05
31	13	5000	1	0.06288	5.3781E+03 +/- 0.000E+00	0.00	0.00	0.00
32	14	5000	2	0.06474	4.7727E+03 +/- 0.000E+00	0.00	0.00	0.00
33	15	5000	101	0.04854	6.0406E+02 +/- 0.000E+00	0.00	0.00	0.00
34	16	5000	205	0.15498	7.9246E-02 +/- 2.333E-02	29.44	0.00	29.44
35	17	5000	207	0.04855	6.0411E+02 +/- 4.366E+00	0.72	0.00	0.72
36	18	5010	1	0.06141	6.0781E+03 +/- 0.000E+00	0.00	0.00	0.00
37	19	5010	2	0.07574	3.0360E+03 +/- 0.000E+00	0.00	0.00	0.00
38	20	5010	101	0.04854	3.0353E+03 +/- 0.000E+00	0.00	0.00	0.00
39	21	5010	107	0.04854	3.0350E+03 +/- 2.194E+01	0.72	0.00	0.72
40	22	5010	205	0.15498	3.9822E-01 +/- 1.172E-01	29.44	0.00	29.44
41	23	5010	207	0.04855	3.0358E+03 +/- 2.194E+01	0.72	0.00	0.72
42	24	5010	800	0.05205	2.0517E+02 +/- 2.081E+00	1.01	0.00	1.01
43	25	5010	801	0.0483	2.8298E+03 +/- 2.184E+01	0.77	0.00	0.77
44	26	5011	1	0.06328	5.2041E+03 +/- 0.000E+00	0.00	0.00	0.00
45	27	5011	2	0.06328	5.2041E+03 +/- 0.000E+00	0.00	0.00	0.00
46	28	11023	1	0.05423	5.2249E+03 +/- 0.000E+00	0.00	0.00	0.00
47	29	11023	2	0.05423	5.2231E+03 +/- 0.000E+00	0.00	0.00	0.00
48	30	11023	102	0.05132	1.7665E+00 +/- 1.605E-01	9.09	0.00	9.09
49	31	15031	103	0.79938	1.0359E-09 +/- 3.812E-10	36.80	0.00	36.80
50	32	16000	15032g	1.06746	8.6825E-14 +/- 1.023E-14	11.79	0.00	11.79
51	33	16032	103	1.06746	9.1404E-14 +/- 1.077E-14	11.79	0.00	11.79
52	34	21045	1	0.05583	1.0335E+04 +/- 0.000E+00	0.00	0.00	0.00
53	35	21045	2	0.05584	1.0264E+04 +/- 0.000E+00	0.00	0.00	0.00
54	36	21045	102	0.04208	5.7117E+01 +/- 3.673E+00	6.43	0.00	6.43
55	37	22000	21047g	0	6.3277E-11 +/- 4.385E-12	6.93	0.00	6.93
56	38	22047	103	0.97667	8.5050E-10 +/- 5.894E-11	6.93	0.00	6.93
57	39	25055	1	0.0388	1.0542E+04 +/- 0.000E+00	0.00	0.00	0.00
58	40	25055	2	0.03849	1.0441E+04 +/- 0.000E+00	0.00	0.00	0.00
59	41	25055	102	0.03538	2.6579E+01 +/- 1.606E+00	6.04	0.00	6.04
60	42	26000	24051g	0	9.6279E-06 +/- 9.384E-07	9.75	0.00	9.75
61	43	26000	25054g	0	7.3967E-10 +/- 1.927E-10	26.05	0.00	26.05
62	44	26054	1	0.04172	8.4671E+03 +/- 0.000E+00	0.00	0.00	0.00
63	45	26054	2	0.04171	8.4443E+03 +/- 0.000E+00	0.00	0.00	0.00
64	46	26054	103	0.58438	1.2655E-08 +/- 3.296E-09	26.05	0.00	26.05

68	47	26054	107	0.04732	1.6472E-04	+/-	1.605E-05	9.75	0.00	9.75
69	48	26058	1	0.05483	1.2147E+04	+/-	0.000E+00	0.00	0.00	0.00
70	49	26058	2	0.05482	1.2131E+04	+/-	0.000E+00	0.00	0.00	0.00
71	50	26058	102	0.04549	1.3265E+01	+/-	2.035E+00	15.34	0.00	15.34
72	51	27059	1	0.0481	1.0083E+04	+/-	0.000E+00	0.00	0.00	0.00
73	52	27059	2	0.04814	1.0054E+04	+/-	0.000E+00	0.00	0.00	0.00
74	53	27059	102	0.03727	2.8789E+01	+/-	7.433E-01	2.58	0.00	2.58
75	54	27059	103	0.8658	6.1848E-13	+/-	5.551E-13	89.75	0.00	89.75
76	55	27059	107	0.40809	1.1310E-09	+/-	1.089E-09	96.28	0.00	96.28
77	56	27059	25056g	0.40809	1.1310E-09	+/-	1.089E-09	96.28	0.00	96.28
78	57	28000	27058g	0	2.6156E-07	+/-	1.768E-08	6.76	0.00	6.76
79	58	28058	103	0.5713	3.8421E-07	+/-	2.597E-08	6.76	0.00	6.76
80	59	29000	29064g	0.03718	4.0734E+01	+/-	3.792E+00	9.31	0.00	9.31
81	60	29063	1	0.05687	8.8220E+03	+/-	0.000E+00	0.00	0.00	0.00
82	61	29063	2	0.05693	8.7630E+03	+/-	0.000E+00	0.00	0.00	0.00
83	62	29063	102	0.03718	5.8907E+01	+/-	5.484E+00	9.31	0.00	9.31
84	63	30000	29064g	0.57131	4.5560E-08	+/-	8.183E-09	17.96	0.00	17.96
85	64	30000	29067g	0.03665	6.3432E-04	+/-	1.586E-04	25.00	0.00	25.00
86	65	30064	103	0.57131	9.2658E-08	+/-	1.664E-08	17.96	0.00	17.96
87	66	30067	103	0.03953	1.6136E-02	+/-	4.034E-03	25.00	0.00	25.00
88	67	30068	1	0.06972	7.6392E+03	+/-	0.000E+00	0.00	0.00	0.00
89	68	30068	2	0.06978	7.6219E+03	+/-	0.000E+00	0.00	0.00	0.00
90	69	41093	1	0.07077	9.9913E+03	+/-	0.000E+00	0.00	0.00	0.00
91	70	41093	2	0.07145	9.7710E+03	+/-	0.000E+00	0.00	0.00	0.00
92	71	41093	102	0.03855	2.1651E+02	+/-	1.555E+00	0.72	0.00	0.72
93	72	41093	41093m	0.13829	8.3645E-01	+/-	5.218E-02	6.24	0.00	6.24
94	73	41093	41094g	0.03855	5.4070E+01	+/-	3.882E-01	0.72	0.00	0.72
95	74	41093	41094m	0.03855	1.6244E+02	+/-	1.166E+00	0.72	0.00	0.72
96	75	42000	41092m	1.0658	1.9569E-13	+/-	4.915E-14	25.12	0.00	25.12
97	76	42092	41092m	1.0658	1.3468E-12	+/-	3.383E-13	25.12	0.00	25.12
98	77	45103	45103m	0.16554	1.0021E+01	+/-	2.426E+00	24.21	0.00	24.21
99	78	47109	1	0.06651	9.1359E+03	+/-	0.000E+00	0.00	0.00	0.00
100	79	47109	2	0.06837	8.3535E+03	+/-	0.000E+00	0.00	0.00	0.00
101	80	47109	47110n	0.05459	5.3027E+01	+/-	3.556E+00	6.71	0.00	6.71
102	81	48000	1	0.06733	8.5862E+03	+/-	0.000E+00	0.00	0.00	0.00
103	82	48000	2	0.0681	8.2874E+03	+/-	0.000E+00	0.00	0.00	0.00
104	83	48000	101	0.04631	2.9846E+02	+/-	0.000E+00	0.00	0.00	0.00
105	84	49000	49114m	0.04884	2.6606E+01	+/-	7.444E-01	2.80	0.00	2.80
106	85	49113	1	0.06468	7.4658E+03	+/-	0.000E+00	0.00	0.00	0.00
107	86	49113	2	0.06693	6.6610E+03	+/-	0.000E+00	0.00	0.00	0.00
108	87	49113	102	0.04739	8.2619E+02	+/-	0.000E+00	0.00	0.00	0.00
109	88	49113	49113m	0.46908	4.8187E-04	+/-	7.255E-05	15.06	0.00	15.06
110	89	49113	49114g	0.04306	2.0601E+02	+/-	5.726E+00	2.78	0.00	2.78
111	90	49113	49114m	0.04884	6.2018E+02	+/-	1.735E+01	2.80	0.00	2.80
112	91	49115	1	0.06524	7.3831E+03	+/-	0.000E+00	0.00	0.00	0.00
113	92	49115	2	0.06723	6.7145E+03	+/-	0.000E+00	0.00	0.00	0.00
114	93	49115	102	0.04605	6.6381E+02	+/-	0.000E+00	0.00	0.00	0.00
115	94	49115	49115m	0.41146	2.5686E-03	+/-	1.175E-04	4.57	0.00	4.57
116	95	49115	49116g	0.04603	1.3935E+02	+/-	5.189E+00	3.72	0.00	3.72
117	96	49115	49116m	0.04606	5.2446E+02	+/-	1.952E+01	3.72	0.00	3.72
118	97	57139	1	0.06283	6.9959E+03	+/-	0.000E+00	0.00	0.00	0.00
119	98	57139	2	0.06281	6.9456E+03	+/-	0.000E+00	0.00	0.00	0.00
120	99	57139	102	0.03911	3.4075E+01	+/-	3.060E+00	8.98	0.00	8.98
121	100	64000	1	0.05857	1.0879E+04	+/-	0.000E+00	0.00	0.00	0.00
122	101	64000	2	0.05846	9.9299E+03	+/-	0.000E+00	0.00	0.00	0.00
123	102	64000	101	0.04341	7.2673E+02	+/-	0.000E+00	0.00	0.00	0.00
124	103	73181	1	0.05853	1.1559E+04	+/-	0.000E+00	0.00	0.00	0.00
125	104	73181	2	0.05839	9.9410E+03	+/-	0.000E+00	0.00	0.00	0.00
126	105	73181	102	0.04319	6.3166E+02	+/-	2.773E+01	4.39	0.00	4.39
127	106	74186	1	0.05649	1.3157E+04	+/-	0.000E+00	0.00	0.00	0.00
128	107	74186	2	0.05629	1.2926E+04	+/-	0.000E+00	0.00	0.00	0.00
129	108	74186	102	0.05009	1.6755E+02	+/-	3.342E+00	1.99	0.00	1.99
130	109	79197	1	0.05848	1.3106E+04	+/-	0.000E+00	0.00	0.00	0.00
131	110	79197	2	0.05864	1.2495E+04	+/-	0.000E+00	0.00	0.00	0.00
132	111	79197	102	0.0451	5.2835E+02	+/-	2.785E+00	0.53	0.00	0.53
133	112	80199	80199m	0.606	1.9010E-04	+/-	1.831E-05	9.63	0.00	9.63
134	113	90232	1	0.06238	1.4801E+04	+/-	0.000E+00	0.00	0.00	0.00
135	114	90232	2	0.06173	1.4088E+04	+/-	0.000E+00	0.00	0.00	0.00
136	115	90232	18	0.09477	2.0682E-03	+/-	1.633E-03	78.95	0.00	78.95

137	116	90232	102	0.04481	4.1275E+02	+/-	5.093E+00	1.23	0.00	1.23
138	117	92235	1	0.06216	1.4544E+04	+/-	0.000E+00	0.00	0.00	0.00
139	118	92235	18	0.057	2.0559E+03	+/-	2.496E+01	1.21	0.00	1.21
140	119	92238	1	0.06202	1.4321E+04	+/-	0.000E+00	0.00	0.00	0.00
141	120	92238	2	0.06142	1.3655E+04	+/-	0.000E+00	0.00	0.00	0.00
142	121	92238	18	0.06281	9.1292E-02	+/-	6.270E-03	6.87	0.00	6.87
143	122	92238	102	0.04298	3.3338E+02	+/-	5.008E+00	1.50	0.00	1.50
144	123	93237	1	0.06085	1.4500E+04	+/-	0.000E+00	0.00	0.00	0.00
145	124	93237	2	0.06079	1.2164E+04	+/-	0.000E+00	0.00	0.00	0.00
146	125	93237	18	0.08396	2.2595E+01	+/-	4.720E+00	20.89	0.00	20.89
147	126	94239	1	0.06209	1.4542E+04	+/-	0.000E+00	0.00	0.00	0.00
148	127	94239	2	0.06122	1.1653E+04	+/-	0.000E+00	0.00	0.00	0.00
149	128	94239	18	0.0646	1.7962E+03	+/-	2.264E+01	1.26	0.00	1.26
150	129	95241	1	0.06331	1.4867E+04	+/-	0.000E+00	0.00	0.00	0.00
151	130	95241	2	0.06424	1.2523E+04	+/-	0.000E+00	0.00	0.00	0.00
152	131	95241	18	0.07041	1.8502E+01	+/-	5.957E-01	3.22	0.00	3.22
153										
154										