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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.       :    9932
15 Spectrum Integral      : 1.128E+00
16 Spectrum average energy [eV] : 6.401E+04
17 Spectrum peak energy [eV] : 3.298E+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	0.05486	1.2613E+03 +/- 0.000E+00	0.00	0.00	0.00
20	2	3000	2	0.05539	1.1850E+03 +/- 0.000E+00	0.00	0.00	0.00
21	3	3000	205	0.04593	7.6319E+01 +/- 3.995E-01	0.52	0.00	0.52
22	4	3000	207	0.04592	7.6408E+01 +/- 3.995E-01	0.52	0.00	0.52
23	5	3006	1	0.05586	1.9908E+03 +/- 0.000E+00	0.00	0.00	0.00
24	6	3006	2	0.06759	9.8524E+02 +/- 0.000E+00	0.00	0.00	0.00
25	7	3006	105	0.04593	1.0055E+03 +/- 5.264E+00	0.52	0.00	0.52
26	8	3006	205	0.04593	1.0055E+03 +/- 5.264E+00	0.52	0.00	0.52
27	9	3006	207	0.04593	1.0055E+03 +/- 5.264E+00	0.52	0.00	0.52
28	10	3007	1	0.05475	1.2014E+03 +/- 0.000E+00	0.00	0.00	0.00
29	11	3007	2	0.05476	1.2014E+03 +/- 0.000E+00	0.00	0.00	0.00
30	12	3007	207	0.03589	9.6275E-02 +/- 3.305E-03	3.43	0.00	3.43
31	13	5000	1	0.05018	5.5080E+03 +/- 0.000E+00	0.00	0.00	0.00
32	14	5000	2	0.05183	4.8356E+03 +/- 0.000E+00	0.00	0.00	0.00
33	15	5000	101	0.0386	6.7086E+02 +/- 0.000E+00	0.00	0.00	0.00
34	16	5000	205	0.11631	4.9613E-02 +/- 1.452E-02	29.27	0.00	29.27
35	17	5000	207	0.0386	6.7083E+02 +/- 4.913E+00	0.73	0.00	0.73
36	18	5010	1	0.04775	6.2756E+03 +/- 0.000E+00	0.00	0.00	0.00
37	19	5010	2	0.05965	2.8967E+03 +/- 0.000E+00	0.00	0.00	0.00
38	20	5010	101	0.0386	3.3709E+03 +/- 0.000E+00	0.00	0.00	0.00
39	21	5010	107	0.0386	3.3705E+03 +/- 2.469E+01	0.73	0.00	0.73
40	22	5010	205	0.11631	2.4931E-01 +/- 7.297E-02	29.27	0.00	29.27
41	23	5010	207	0.0386	3.3710E+03 +/- 2.469E+01	0.73	0.00	0.73
42	24	5010	800	0.04034	2.2199E+02 +/- 2.312E+00	1.04	0.00	1.04
43	25	5010	801	0.03848	3.1485E+03 +/- 2.458E+01	0.78	0.00	0.78
44	26	5011	1	0.05086	5.3173E+03 +/- 0.000E+00	0.00	0.00	0.00
45	27	5011	2	0.05086	5.3173E+03 +/- 0.000E+00	0.00	0.00	0.00
46	28	11023	1	0.04888	5.5930E+03 +/- 0.000E+00	0.00	0.00	0.00
47	29	11023	2	0.04889	5.5910E+03 +/- 0.000E+00	0.00	0.00	0.00
48	30	11023	102	0.03548	1.9962E+00 +/- 1.690E-01	8.47	0.00	8.47
49	31	15031	103	0.78559	1.0975E-11 +/- 3.931E-12	35.82	0.00	35.82
50	32	16000	15032g	1.02828	1.7461E-16 +/- 2.054E-17	11.76	0.00	11.76
51	33	16032	103	1.02828	1.8381E-16 +/- 2.162E-17	11.76	0.00	11.76
52	34	21045	1	0.04251	1.1475E+04 +/- 0.000E+00	0.00	0.00	0.00
53	35	21045	2	0.04254	1.1400E+04 +/- 0.000E+00	0.00	0.00	0.00
54	36	21045	102	0.0342	6.6094E+01 +/- 4.490E+00	6.79	0.00	6.79
55	37	22000	21047g	0	2.3251E-13 +/- 1.611E-14	6.93	0.00	6.93
56	38	22047	103	0.9542	3.1251E-12 +/- 2.166E-13	6.93	0.00	6.93
57	39	25055	1	0.03539	1.2144E+04 +/- 0.000E+00	0.00	0.00	0.00
58	40	25055	2	0.03536	1.2077E+04 +/- 0.000E+00	0.00	0.00	0.00
59	41	25055	102	0.0269	3.1613E+01 +/- 1.889E+00	5.98	0.00	5.98
60	42	26000	24051g	0	1.0764E-05 +/- 1.049E-06	9.75	0.00	9.75
61	43	26000	25054g	0	3.5418E-11 +/- 1.638E-11	46.25	0.00	46.25
62	44	26054	1	0.01726	9.9418E+03 +/- 0.000E+00	0.00	0.00	0.00
63	45	26054	2	0.01723	9.9154E+03 +/- 0.000E+00	0.00	0.00	0.00
64	46	26054	103	0.50536	6.0595E-10 +/- 2.803E-10	46.25	0.00	46.25

68	47	26054	107	0.03786	1.8416E-04	+/-	1.795E-05	9.75	0.00	9.75
69	48	26058	1	0.04881	1.2401E+04	+/-	0.000E+00	0.00	0.00	0.00
70	49	26058	2	0.04881	1.2386E+04	+/-	0.000E+00	0.00	0.00	0.00
71	50	26058	102	0.03924	1.4722E+01	+/-	2.347E+00	15.94	0.00	15.94
72	51	27059	1	0.03476	1.1128E+04	+/-	0.000E+00	0.00	0.00	0.00
73	52	27059	2	0.03477	1.1095E+04	+/-	0.000E+00	0.00	0.00	0.00
74	53	27059	102	0.0288	3.3307E+01	+/-	8.522E-01	2.56	0.00	2.56
75	54	27059	103	0.85099	4.3343E-15	+/-	3.876E-15	89.42	0.00	89.42
76	55	27059	107	0.39206	1.3616E-10	+/-	1.311E-10	96.28	0.00	96.28
77	56	27059	25056g	0.39206	1.3616E-10	+/-	1.311E-10	96.28	0.00	96.28
78	57	28000	27058g	0	1.4276E-08	+/-	9.648E-10	6.76	0.00	6.76
79	58	28058	103	0.47578	2.0970E-08	+/-	1.417E-09	6.76	0.00	6.76
80	59	29000	29064g	0.02748	4.7642E+01	+/-	4.531E+00	9.51	0.00	9.51
81	60	29063	1	0.04468	9.3783E+03	+/-	0.000E+00	0.00	0.00	0.00
82	61	29063	2	0.04479	9.3093E+03	+/-	0.000E+00	0.00	0.00	0.00
83	62	29063	102	0.02748	6.8897E+01	+/-	6.554E+00	9.51	0.00	9.51
84	63	30000	29064g	0.5562	1.9756E-09	+/-	3.548E-10	17.96	0.00	17.96
85	64	30000	29067g	0.02387	7.2758E-04	+/-	1.819E-04	25.00	0.00	25.00
86	65	30064	103	0.5562	4.0180E-09	+/-	7.216E-10	17.96	0.00	17.96
87	66	30067	103	0.02466	1.8442E-02	+/-	4.611E-03	25.00	0.00	25.00
88	67	30068	1	0.05755	7.5223E+03	+/-	0.000E+00	0.00	0.00	0.00
89	68	30068	2	0.05761	7.5023E+03	+/-	0.000E+00	0.00	0.00	0.00
90	69	41093	1	0.05694	9.8135E+03	+/-	0.000E+00	0.00	0.00	0.00
91	70	41093	2	0.05761	9.5583E+03	+/-	0.000E+00	0.00	0.00	0.00
92	71	41093	102	0.03127	2.5383E+02	+/-	1.927E+00	0.76	0.00	0.76
93	72	41093	41093m	0.11477	5.5514E-01	+/-	3.808E-02	6.86	0.00	6.86
94	73	41093	41094g	0.03127	6.3390E+01	+/-	4.813E-01	0.76	0.00	0.76
95	74	41093	41094m	0.03127	1.9044E+02	+/-	1.446E+00	0.76	0.00	0.76
96	75	42000	41092m	1.05775	4.3014E-16	+/-	1.080E-16	25.12	0.00	25.12
97	76	42092	41092m	1.05775	2.9604E-15	+/-	7.436E-16	25.12	0.00	25.12
98	77	45103	45103m	0.1398	5.8067E+00	+/-	1.670E+00	28.76	0.00	28.76
99	78	47109	1	0.05305	9.1732E+03	+/-	0.000E+00	0.00	0.00	0.00
100	79	47109	2	0.05475	8.2999E+03	+/-	0.000E+00	0.00	0.00	0.00
101	80	47109	47110n	0.04476	5.6892E+01	+/-	3.825E+00	6.72	0.00	6.72
102	81	48000	1	0.05377	8.5878E+03	+/-	0.000E+00	0.00	0.00	0.00
103	82	48000	2	0.05447	8.2541E+03	+/-	0.000E+00	0.00	0.00	0.00
104	83	48000	101	0.03708	3.3362E+02	+/-	0.000E+00	0.00	0.00	0.00
105	84	49000	49114m	0.03954	2.9615E+01	+/-	8.230E-01	2.78	0.00	2.78
106	85	49113	1	0.05127	7.5758E+03	+/-	0.000E+00	0.00	0.00	0.00
107	86	49113	2	0.05319	6.6758E+03	+/-	0.000E+00	0.00	0.00	0.00
108	87	49113	102	0.03827	9.2708E+02	+/-	0.000E+00	0.00	0.00	0.00
109	88	49113	49113m	0.4522	3.9401E-05	+/-	6.927E-06	17.58	0.00	17.58
110	89	49113	49114g	0.03464	2.3674E+02	+/-	6.542E+00	2.76	0.00	2.76
111	90	49113	49114m	0.03954	6.9034E+02	+/-	1.918E+01	2.78	0.00	2.78
112	91	49115	1	0.05182	7.4668E+03	+/-	0.000E+00	0.00	0.00	0.00
113	92	49115	2	0.05355	6.7166E+03	+/-	0.000E+00	0.00	0.00	0.00
114	93	49115	102	0.03725	7.4730E+02	+/-	0.000E+00	0.00	0.00	0.00
115	94	49115	49115m	0.39495	2.9872E-04	+/-	1.384E-05	4.63	0.00	4.63
116	95	49115	49116g	0.03724	1.5691E+02	+/-	6.227E+00	3.97	0.00	3.97
117	96	49115	49116m	0.03725	5.9039E+02	+/-	2.343E+01	3.97	0.00	3.97
118	97	57139	1	0.05002	7.1692E+03	+/-	0.000E+00	0.00	0.00	0.00
119	98	57139	2	0.05008	7.1228E+03	+/-	0.000E+00	0.00	0.00	0.00
120	99	57139	102	0.03145	3.9929E+01	+/-	4.108E+00	10.29	0.00	10.29
121	100	64000	1	0.04658	1.1397E+04	+/-	0.000E+00	0.00	0.00	0.00
122	101	64000	2	0.04687	1.0418E+04	+/-	0.000E+00	0.00	0.00	0.00
123	102	64000	101	0.03529	8.3402E+02	+/-	0.000E+00	0.00	0.00	0.00
124	103	73181	1	0.04714	1.2127E+04	+/-	0.000E+00	0.00	0.00	0.00
125	104	73181	2	0.04724	1.0438E+04	+/-	0.000E+00	0.00	0.00	0.00
126	105	73181	102	0.03399	7.2370E+02	+/-	2.842E+01	3.93	0.00	3.93
127	106	74186	1	0.04523	1.3962E+04	+/-	0.000E+00	0.00	0.00	0.00
128	107	74186	2	0.04519	1.3745E+04	+/-	0.000E+00	0.00	0.00	0.00
129	108	74186	102	0.0401	1.8675E+02	+/-	3.621E+00	1.94	0.00	1.94
130	109	79197	1	0.04693	1.3777E+04	+/-	0.000E+00	0.00	0.00	0.00
131	110	79197	2	0.04725	1.3127E+04	+/-	0.000E+00	0.00	0.00	0.00
132	111	79197	102	0.03509	5.9738E+02	+/-	3.507E+00	0.59	0.00	0.59
133	112	80199	80199m	0.59097	6.6681E-06	+/-	8.077E-07	12.11	0.00	12.11
134	113	90232	1	0.05015	1.5220E+04	+/-	0.000E+00	0.00	0.00	0.00
135	114	90232	2	0.04992	1.4544E+04	+/-	0.000E+00	0.00	0.00	0.00
136	115	90232	18	0.0754	1.7737E-03	+/-	1.453E-03	81.91	0.00	81.91

137	116	90232	102	0.03685	4.6777E+02	+/-	6.119E+00	1.31	0.00	1.31
138	117	92235	1	0.04991	1.4972E+04	+/-	0.000E+00	0.00	0.00	0.00
139	118	92235	18	0.04528	2.1790E+03	+/-	2.640E+01	1.21	0.00	1.21
140	119	92238	1	0.04975	1.4743E+04	+/-	0.000E+00	0.00	0.00	0.00
141	120	92238	2	0.04962	1.4129E+04	+/-	0.000E+00	0.00	0.00	0.00
142	121	92238	18	0.05159	9.0313E-02	+/-	5.914E-03	6.55	0.00	6.55
143	122	92238	102	0.03571	3.8111E+02	+/-	5.578E+00	1.46	0.00	1.46
144	123	93237	1	0.04896	1.5028E+04	+/-	0.000E+00	0.00	0.00	0.00
145	124	93237	2	0.04935	1.2613E+04	+/-	0.000E+00	0.00	0.00	0.00
146	125	93237	18	0.06151	2.0410E+01	+/-	4.326E+00	21.20	0.00	21.20
147	126	94239	1	0.04971	1.4971E+04	+/-	0.000E+00	0.00	0.00	0.00
148	127	94239	2	0.04939	1.2056E+04	+/-	0.000E+00	0.00	0.00	0.00
149	128	94239	18	0.05115	1.8264E+03	+/-	2.299E+01	1.26	0.00	1.26
150	129	95241	1	0.05075	1.5213E+04	+/-	0.000E+00	0.00	0.00	0.00
151	130	95241	2	0.05183	1.2749E+04	+/-	0.000E+00	0.00	0.00	0.00
152	131	95241	18	0.05219	1.8087E+01	+/-	6.600E-01	3.65	0.00	3.65
153										
154										