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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
12 Reaction rate integ.flag :      1
13 Reaction rate norm. flag :      1
14
15 Spectrum MAT No.       :    9935
16 Spectrum Integral      :    1.128E+00
17 Spectrum average energy [eV] :    7.001E+04
18 Spectrum peak energy [eV] :    3.499E+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	0.06181	1.2924E+03 +/- 0.000E+00	0.00	0.00	0.00
23	2	3000	2	0.06231	1.2159E+03 +/- 0.000E+00	0.00	0.00	0.00
24	3	3000	205	0.05289	7.6496E+01 +/- 4.017E-01	0.53	0.00	0.53
25	4	3000	207	0.05287	7.6581E+01 +/- 4.017E-01	0.52	0.00	0.52
26	5	3006	1	0.06573	2.0705E+03 +/- 0.000E+00	0.00	0.00	0.00
27	6	3006	2	0.08041	1.0627E+03 +/- 0.000E+00	0.00	0.00	0.00
28	7	3006	105	0.05289	1.0079E+03 +/- 5.292E+00	0.53	0.00	0.53
29	8	3006	205	0.05289	1.0079E+03 +/- 5.292E+00	0.53	0.00	0.53
30	9	3006	207	0.05289	1.0079E+03 +/- 5.292E+00	0.53	0.00	0.53
31	10	3007	1	0.06138	1.2285E+03 +/- 0.000E+00	0.00	0.00	0.00
32	11	3007	2	0.06138	1.2285E+03 +/- 0.000E+00	0.00	0.00	0.00
33	12	3007	207	0.03946	9.1974E-02 +/- 3.321E-03	3.61	0.00	3.61
34	13	5000	1	0.05493	5.4553E+03 +/- 0.000E+00	0.00	0.00	0.00
35	14	5000	2	0.05667	4.8108E+03 +/- 0.000E+00	0.00	0.00	0.00
36	15	5000	101	0.04232	6.4315E+02 +/- 0.000E+00	0.00	0.00	0.00
37	16	5000	205	0.13075	5.9525E-02 +/- 1.746E-02	29.33	0.00	29.33
38	17	5000	207	0.04233	6.4315E+02 +/- 4.686E+00	0.73	0.00	0.73
39	18	5010	1	0.05283	6.1893E+03 +/- 0.000E+00	0.00	0.00	0.00
40	19	5010	2	0.06567	2.9501E+03 +/- 0.000E+00	0.00	0.00	0.00
41	20	5010	101	0.04232	3.2317E+03 +/- 0.000E+00	0.00	0.00	0.00
42	21	5010	107	0.04232	3.2313E+03 +/- 2.355E+01	0.73	0.00	0.73
43	22	5010	205	0.13075	2.9912E-01 +/- 8.772E-02	29.33	0.00	29.33
44	23	5010	207	0.04233	3.2319E+03 +/- 2.355E+01	0.73	0.00	0.73
45	24	5010	800	0.04463	2.1478E+02 +/- 2.216E+00	1.03	0.00	1.03
46	25	5010	801	0.04217	3.0165E+03 +/- 2.345E+01	0.78	0.00	0.78
47	26	5011	1	0.05552	5.2730E+03 +/- 0.000E+00	0.00	0.00	0.00
48	27	5011	2	0.05552	5.2730E+03 +/- 0.000E+00	0.00	0.00	0.00
49	28	11023	1	0.05247	5.4341E+03 +/- 0.000E+00	0.00	0.00	0.00
50	29	11023	2	0.05247	5.4322E+03 +/- 0.000E+00	0.00	0.00	0.00
51	30	11023	102	0.03579	1.8969E+00 +/- 1.653E-01	8.72	0.00	8.72
52	31	15031	103	0.79077	7.6858E-11 +/- 2.786E-11	36.25	0.00	36.25
53	32	16000	15032g	1.04044	2.4022E-15 +/- 2.828E-16	11.77	0.00	11.77
54	33	16032	103	1.04044	2.5289E-15 +/- 2.977E-16	11.77	0.00	11.77
55	34	21045	1	0.04892	1.1010E+04 +/- 0.000E+00	0.00	0.00	0.00
56	35	21045	2	0.04899	1.0937E+04 +/- 0.000E+00	0.00	0.00	0.00
57	36	21045	102	0.03651	6.2354E+01 +/- 4.146E+00	6.65	0.00	6.65
58	37	22000	21047g	0	2.5543E-12 +/- 1.770E-13	6.93	0.00	6.93
59	38	22047	103	0.9626	3.4332E-11 +/- 2.379E-12	6.93	0.00	6.93
60	39	25055	1	0.0363	1.1465E+04 +/- 0.000E+00	0.00	0.00	0.00
61	40	25055	2	0.03623	1.1387E+04 +/- 0.000E+00	0.00	0.00	0.00
62	41	25055	102	0.03109	2.9463E+01 +/- 1.765E+00	5.99	0.00	5.99
63	42	26000	24051g	0	1.0293E-05 +/- 1.003E-06	9.75	0.00	9.75
64	43	26000	25054g	0	1.2415E-10 +/- 4.633E-11	37.32	0.00	37.32
65	44	26054	1	0.0227	9.2831E+03 +/- 0.000E+00	0.00	0.00	0.00
66	45	26054	2	0.02264	9.2582E+03 +/- 0.000E+00	0.00	0.00	0.00
67	46	26054	103	0.53275	2.1241E-09 +/- 7.927E-10	37.32	0.00	37.32

68	47	26054	107	0.04141	1.7609E-04	+/-	1.716E-05	9.75	0.00	9.75
69	48	26058	1	0.05051	1.2327E+04	+/-	0.000E+00	0.00	0.00	0.00
70	49	26058	2	0.05051	1.2312E+04	+/-	0.000E+00	0.00	0.00	0.00
71	50	26058	102	0.04133	1.4112E+01	+/-	2.211E+00	15.67	0.00	15.67
72	51	27059	1	0.03917	1.0685E+04	+/-	0.000E+00	0.00	0.00	0.00
73	52	27059	2	0.0392	1.0654E+04	+/-	0.000E+00	0.00	0.00	0.00
74	53	27059	102	0.03171	3.1361E+01	+/-	8.085E-01	2.58	0.00	2.58
75	54	27059	103	0.85685	3.6261E-14	+/-	3.248E-14	89.57	0.00	89.57
76	55	27059	107	0.39767	3.3662E-10	+/-	3.241E-10	96.28	0.00	96.28
77	56	27059	25056g	0.39767	3.3662E-10	+/-	3.241E-10	96.28	0.00	96.28
78	57	28000	27058g	0	4.7756E-08	+/-	3.227E-09	6.76	0.00	6.76
79	58	28058	103	0.49984	7.0150E-08	+/-	4.741E-09	6.76	0.00	6.76
80	59	29000	29064g	0.0316	4.4675E+01	+/-	4.206E+00	9.42	0.00	9.42
81	60	29063	1	0.05146	9.1498E+03	+/-	0.000E+00	0.00	0.00	0.00
82	61	29063	2	0.05173	9.0852E+03	+/-	0.000E+00	0.00	0.00	0.00
83	62	29063	102	0.0316	6.4606E+01	+/-	6.084E+00	9.42	0.00	9.42
84	63	30000	29064g	0.5621	7.5663E-09	+/-	1.359E-09	17.96	0.00	17.96
85	64	30000	29067g	0.02841	6.8683E-04	+/-	1.717E-04	25.00	0.00	25.00
86	65	30064	103	0.5621	1.5388E-08	+/-	2.764E-09	17.96	0.00	17.96
87	66	30067	103	0.02981	1.7440E-02	+/-	4.360E-03	25.00	0.00	25.00
88	67	30068	1	0.06482	7.5635E+03	+/-	0.000E+00	0.00	0.00	0.00
89	68	30068	2	0.06487	7.5447E+03	+/-	0.000E+00	0.00	0.00	0.00
90	69	41093	1	0.06216	9.8874E+03	+/-	0.000E+00	0.00	0.00	0.00
91	70	41093	2	0.06283	9.6468E+03	+/-	0.000E+00	0.00	0.00	0.00
92	71	41093	102	0.03398	2.3816E+02	+/-	1.763E+00	0.74	0.00	0.74
93	72	41093	41093m	0.12368	6.5672E-01	+/-	4.327E-02	6.59	0.00	6.59
94	73	41093	41094g	0.03398	5.9476E+01	+/-	4.402E-01	0.74	0.00	0.74
95	74	41093	41094m	0.03398	1.7868E+02	+/-	1.323E+00	0.74	0.00	0.74
96	75	42000	41092m	1.06052	5.9260E-15	+/-	1.488E-15	25.12	0.00	25.12
97	76	42092	41092m	1.06052	4.0784E-14	+/-	1.024E-14	25.12	0.00	25.12
98	77	45103	45103m	0.15007	7.2689E+00	+/-	1.966E+00	27.04	0.00	27.04
99	78	47109	1	0.0581	9.1562E+03	+/-	0.000E+00	0.00	0.00	0.00
100	79	47109	2	0.05986	8.3213E+03	+/-	0.000E+00	0.00	0.00	0.00
101	80	47109	47110n	0.04849	5.5339E+01	+/-	3.712E+00	6.71	0.00	6.71
102	81	48000	1	0.05887	8.5865E+03	+/-	0.000E+00	0.00	0.00	0.00
103	82	48000	2	0.0596	8.2674E+03	+/-	0.000E+00	0.00	0.00	0.00
104	83	48000	101	0.04049	3.1893E+02	+/-	0.000E+00	0.00	0.00	0.00
105	84	49000	49114m	0.04308	2.8377E+01	+/-	7.907E-01	2.79	0.00	2.79
106	85	49113	1	0.05629	7.5285E+03	+/-	0.000E+00	0.00	0.00	0.00
107	86	49113	2	0.05834	6.6680E+03	+/-	0.000E+00	0.00	0.00	0.00
108	87	49113	102	0.04175	8.8540E+02	+/-	0.000E+00	0.00	0.00	0.00
109	88	49113	49113m	0.45876	1.1472E-04	+/-	1.910E-05	16.65	0.00	16.65
110	89	49113	49114g	0.03782	2.2393E+02	+/-	6.201E+00	2.77	0.00	2.77
111	90	49113	49114m	0.04308	6.6147E+02	+/-	1.843E+01	2.79	0.00	2.79
112	91	49115	1	0.05685	7.4308E+03	+/-	0.000E+00	0.00	0.00	0.00
113	92	49115	2	0.05868	6.7145E+03	+/-	0.000E+00	0.00	0.00	0.00
114	93	49115	102	0.04055	7.1274E+02	+/-	0.000E+00	0.00	0.00	0.00
115	94	49115	49115m	0.40032	7.4803E-04	+/-	3.455E-05	4.62	0.00	4.62
116	95	49115	49116g	0.04054	1.4964E+02	+/-	5.796E+00	3.87	0.00	3.87
117	96	49115	49116m	0.04056	5.6310E+02	+/-	2.180E+01	3.87	0.00	3.87
118	97	57139	1	0.05482	7.0979E+03	+/-	0.000E+00	0.00	0.00	0.00
119	98	57139	2	0.05486	7.0508E+03	+/-	0.000E+00	0.00	0.00	0.00
120	99	57139	102	0.03432	3.7470E+01	+/-	3.644E+00	9.73	0.00	9.73
121	100	64000	1	0.05102	1.1182E+04	+/-	0.000E+00	0.00	0.00	0.00
122	101	64000	2	0.05118	1.0219E+04	+/-	0.000E+00	0.00	0.00	0.00
123	102	64000	101	0.03837	7.8952E+02	+/-	0.000E+00	0.00	0.00	0.00
124	103	73181	1	0.05142	1.1897E+04	+/-	0.000E+00	0.00	0.00	0.00
125	104	73181	2	0.05143	1.0239E+04	+/-	0.000E+00	0.00	0.00	0.00
126	105	73181	102	0.03744	6.8506E+02	+/-	2.790E+01	4.07	0.00	4.07
127	106	74186	1	0.04945	1.3633E+04	+/-	0.000E+00	0.00	0.00	0.00
128	107	74186	2	0.04937	1.3413E+04	+/-	0.000E+00	0.00	0.00	0.00
129	108	74186	102	0.04395	1.7892E+02	+/-	3.511E+00	1.96	0.00	1.96
130	109	79197	1	0.05128	1.3506E+04	+/-	0.000E+00	0.00	0.00	0.00
131	110	79197	2	0.05155	1.2874E+04	+/-	0.000E+00	0.00	0.00	0.00
132	111	79197	102	0.03879	5.6816E+02	+/-	3.178E+00	0.56	0.00	0.56
133	112	80199	80199m	0.59621	2.7980E-05	+/-	3.104E-06	11.10	0.00	11.10
134	113	90232	1	0.05476	1.5054E+04	+/-	0.000E+00	0.00	0.00	0.00
135	114	90232	2	0.05438	1.4366E+04	+/-	0.000E+00	0.00	0.00	0.00
136	115	90232	18	0.08266	1.8853E-03	+/-	1.531E-03	81.20	0.00	81.20

137	116	90232	102	0.03986	4.4497E+02	+/-	5.695E+00	1.28	0.00	1.28
138	117	92235	1	0.05452	1.4801E+04	+/-	0.000E+00	0.00	0.00	0.00
139	118	92235	18	0.04971	2.1280E+03	+/-	2.581E+01	1.21	0.00	1.21
140	119	92238	1	0.05436	1.4574E+04	+/-	0.000E+00	0.00	0.00	0.00
141	120	92238	2	0.05407	1.3944E+04	+/-	0.000E+00	0.00	0.00	0.00
142	121	92238	18	0.05554	9.0429E-02	+/-	6.040E-03	6.68	0.00	6.68
143	122	92238	102	0.03846	3.6127E+02	+/-	5.339E+00	1.48	0.00	1.48
144	123	93237	1	0.05344	1.4816E+04	+/-	0.000E+00	0.00	0.00	0.00
145	124	93237	2	0.05368	1.2438E+04	+/-	0.000E+00	0.00	0.00	0.00
146	125	93237	18	0.06959	2.1115E+01	+/-	4.451E+00	21.08	0.00	21.08
147	126	94239	1	0.05436	1.4798E+04	+/-	0.000E+00	0.00	0.00	0.00
148	127	94239	2	0.05384	1.1897E+04	+/-	0.000E+00	0.00	0.00	0.00
149	128	94239	18	0.05624	1.8134E+03	+/-	2.284E+01	1.26	0.00	1.26
150	129	95241	1	0.05548	1.5075E+04	+/-	0.000E+00	0.00	0.00	0.00
151	130	95241	2	0.05651	1.2664E+04	+/-	0.000E+00	0.00	0.00	0.00
152	131	95241	18	0.05877	1.8185E+01	+/-	6.326E-01	3.48	0.00	3.48
153										
154										