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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.       :    9945
15 Spectrum Integral      :    1.128E+00
16 Spectrum average energy [eV] :    9.002E+04
17 Spectrum peak energy [eV] :    4.623E+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	0.09199	1.4578E+03 +/- 0.000E+00	0.00	0.00	0.00
20	2	3000	2	0.09247	1.3771E+03 +/- 0.000E+00	0.00	0.00	0.00
21	3	3000	205	0.08316	8.0639E+01 +/- 4.263E-01	0.53	0.00	0.53
22	4	3000	207	0.08312	8.0714E+01 +/- 4.263E-01	0.53	0.00	0.53
23	5	3006	1	0.11153	2.4562E+03 +/- 0.000E+00	0.00	0.00	0.00
24	6	3006	2	0.13875	1.3937E+03 +/- 0.000E+00	0.00	0.00	0.00
25	7	3006	105	0.08316	1.0624E+03 +/- 5.617E+00	0.53	0.00	0.53
26	8	3006	205	0.08316	1.0624E+03 +/- 5.617E+00	0.53	0.00	0.53
27	9	3006	207	0.08316	1.0624E+03 +/- 5.617E+00	0.53	0.00	0.53
28	10	3007	1	0.0899	1.3758E+03 +/- 0.000E+00	0.00	0.00	0.00
29	11	3007	2	0.08991	1.3758E+03 +/- 0.000E+00	0.00	0.00	0.00
30	12	3007	207	0.05229	8.1709E-02 +/- 3.788E-03	4.64	0.00	4.64
31	13	5000	1	0.07081	5.3112E+03 +/- 0.000E+00	0.00	0.00	0.00
32	14	5000	2	0.0728	4.7385E+03 +/- 0.000E+00	0.00	0.00	0.00
33	15	5000	101	0.05473	5.7152E+02 +/- 0.000E+00	0.00	0.00	0.00
34	16	5000	205	0.17917	1.0335E-01 +/- 3.055E-02	29.56	0.00	29.56
35	17	5000	207	0.05476	5.7164E+02 +/- 4.101E+00	0.72	0.00	0.72
36	18	5010	1	0.0701	5.9957E+03 +/- 0.000E+00	0.00	0.00	0.00
37	19	5010	2	0.08584	3.1177E+03 +/- 0.000E+00	0.00	0.00	0.00
38	20	5010	101	0.05474	2.8718E+03 +/- 0.000E+00	0.00	0.00	0.00
39	21	5010	107	0.05474	2.8715E+03 +/- 2.061E+01	0.72	0.00	0.72
40	22	5010	205	0.17917	5.1935E-01 +/- 1.535E-01	29.56	0.00	29.56
41	23	5010	207	0.05476	2.8725E+03 +/- 2.061E+01	0.72	0.00	0.72
42	24	5010	800	0.0598	1.9780E+02 +/- 1.970E+00	1.00	0.00	1.00
43	25	5010	801	0.0544	2.6737E+03 +/- 2.051E+01	0.77	0.00	0.77
44	26	5011	1	0.071	5.1412E+03 +/- 0.000E+00	0.00	0.00	0.00
45	27	5011	2	0.071	5.1411E+03 +/- 0.000E+00	0.00	0.00	0.00
46	28	11023	1	0.05867	5.0664E+03 +/- 0.000E+00	0.00	0.00	0.00
47	29	11023	2	0.05868	5.0647E+03 +/- 0.000E+00	0.00	0.00	0.00
48	30	11023	102	0.05295	1.6654E+00 +/- 1.570E-01	9.43	0.00	9.43
49	31	15031	103	0.81041	7.8762E-09 +/- 2.930E-09	37.20	0.00	37.20
50	32	16000	15032g	1.14849	1.6248E-12 +/- 1.916E-13	11.79	0.00	11.79
51	33	16032	103	1.14849	1.7105E-12 +/- 2.017E-13	11.79	0.00	11.79
52	34	21045	1	0.06091	9.7564E+03 +/- 0.000E+00	0.00	0.00	0.00
53	35	21045	2	0.06089	9.6857E+03 +/- 0.000E+00	0.00	0.00	0.00
54	36	21045	102	0.04701	5.2811E+01 +/- 3.298E+00	6.25	0.00	6.25
55	37	22000	21047g	0	7.7791E-10 +/- 5.391E-11	6.93	0.00	6.93
56	38	22047	103	0.98866	1.0456E-08 +/- 7.246E-10	6.93	0.00	6.93
57	39	25055	1	0.04235	9.8112E+03 +/- 0.000E+00	0.00	0.00	0.00
58	40	25055	2	0.04202	9.6845E+03 +/- 0.000E+00	0.00	0.00	0.00
59	41	25055	102	0.04139	2.4312E+01 +/- 1.496E+00	6.15	0.00	6.15
60	42	26000	24051g	0	9.0772E-06 +/- 8.847E-07	9.75	0.00	9.75
61	43	26000	25054g	0	3.3670E-09 +/- 6.445E-10	19.14	0.00	19.14
62	44	26054	1	0.05315	7.8954E+03 +/- 0.000E+00	0.00	0.00	0.00
63	45	26054	2	0.05315	7.8742E+03 +/- 0.000E+00	0.00	0.00	0.00
64	46	26054	103	0.64151	5.7605E-08 +/- 1.103E-08	19.14	0.00	19.14

68	47	26054	107	0.05324	1.5530E-04	+/-	1.514E-05	9.75	0.00	9.75
69	48	26058	1	0.06595	1.1928E+04	+/-	0.000E+00	0.00	0.00	0.00
70	49	26058	2	0.06575	1.1908E+04	+/-	0.000E+00	0.00	0.00	0.00
71	50	26058	102	0.05257	1.2568E+01	+/-	1.898E+00	15.10	0.00	15.10
72	51	27059	1	0.05479	9.6001E+03	+/-	0.000E+00	0.00	0.00	0.00
73	52	27059	2	0.05481	9.5733E+03	+/-	0.000E+00	0.00	0.00	0.00
74	53	27059	102	0.04703	2.6793E+01	+/-	6.856E-01	2.56	0.00	2.56
75	54	27059	103	0.87438	5.6404E-12	+/-	5.068E-12	89.86	0.00	89.86
76	55	27059	107	0.41804	2.9183E-09	+/-	2.810E-09	96.28	0.00	96.28
77	56	27059	25056g	0.41804	2.9183E-09	+/-	2.810E-09	96.28	0.00	96.28
78	57	28000	27058g	0	1.0756E-06	+/-	7.269E-08	6.76	0.00	6.76
79	58	28058	103	0.61533	1.5800E-06	+/-	1.068E-07	6.76	0.00	6.76
80	59	29000	29064g	0.04201	3.7682E+01	+/-	3.491E+00	9.27	0.00	9.27
81	60	29063	1	0.06392	8.5447E+03	+/-	0.000E+00	0.00	0.00	0.00
82	61	29063	2	0.06405	8.4902E+03	+/-	0.000E+00	0.00	0.00	0.00
83	62	29063	102	0.04201	5.4493E+01	+/-	5.049E+00	9.27	0.00	9.27
84	63	30000	29064g	0.58144	1.8519E-07	+/-	3.326E-08	17.96	0.00	17.96
85	64	30000	29067g	0.04897	5.9446E-04	+/-	1.486E-04	25.00	0.00	25.00
86	65	30064	103	0.58144	3.7663E-07	+/-	6.764E-08	17.96	0.00	17.96
87	66	30067	103	0.05297	1.5135E-02	+/-	3.784E-03	25.00	0.00	25.00
88	67	30068	1	0.07932	7.7099E+03	+/-	0.000E+00	0.00	0.00	0.00
89	68	30068	2	0.07941	7.6938E+03	+/-	0.000E+00	0.00	0.00	0.00
90	69	41093	1	0.07927	1.0075E+04	+/-	0.000E+00	0.00	0.00	0.00
91	70	41093	2	0.07994	9.8708E+03	+/-	0.000E+00	0.00	0.00	0.00
92	71	41093	102	0.04317	1.9904E+02	+/-	1.403E+00	0.71	0.00	0.71
93	72	41093	41093m	0.15286	1.0280E+00	+/-	6.125E-02	5.96	0.00	5.96
94	73	41093	41094g	0.04317	4.9708E+01	+/-	3.505E-01	0.71	0.00	0.71
95	74	41093	41094m	0.04317	1.4934E+02	+/-	1.053E+00	0.71	0.00	0.71
96	75	42000	41092m	1.07202	2.9793E-12	+/-	7.483E-13	25.12	0.00	25.12
97	76	42092	41092m	1.07202	2.0505E-11	+/-	5.150E-12	25.12	0.00	25.12
98	77	45103	45103m	0.17974	1.3110E+01	+/-	2.830E+00	21.59	0.00	21.59
99	78	47109	1	0.07495	9.1222E+03	+/-	0.000E+00	0.00	0.00	0.00
100	79	47109	2	0.07689	8.3813E+03	+/-	0.000E+00	0.00	0.00	0.00
101	80	47109	47110n	0.06073	5.0999E+01	+/-	3.427E+00	6.72	0.00	6.72
102	81	48000	1	0.07575	8.5871E+03	+/-	0.000E+00	0.00	0.00	0.00
103	82	48000	2	0.07654	8.3044E+03	+/-	0.000E+00	0.00	0.00	0.00
104	83	48000	101	0.0523	2.8180E+02	+/-	0.000E+00	0.00	0.00	0.00
105	84	49000	49114m	0.05443	2.5118E+01	+/-	7.053E-01	2.81	0.00	2.81
106	85	49113	1	0.07308	7.4177E+03	+/-	0.000E+00	0.00	0.00	0.00
107	86	49113	2	0.07551	6.6590E+03	+/-	0.000E+00	0.00	0.00	0.00
108	87	49113	102	0.05289	7.7683E+02	+/-	0.000E+00	0.00	0.00	0.00
109	88	49113	49113m	0.48048	1.4916E-03	+/-	2.013E-04	13.50	0.00	13.50
110	89	49113	49114g	0.04819	1.9132E+02	+/-	5.336E+00	2.79	0.00	2.79
111	90	49113	49114m	0.05443	5.8551E+02	+/-	1.644E+01	2.81	0.00	2.81
112	91	49115	1	0.07366	7.3465E+03	+/-	0.000E+00	0.00	0.00	0.00
113	92	49115	2	0.07577	6.7172E+03	+/-	0.000E+00	0.00	0.00	0.00
114	93	49115	102	0.05155	6.2317E+02	+/-	0.000E+00	0.00	0.00	0.00
115	94	49115	49115m	0.42225	6.7895E-03	+/-	3.059E-04	4.51	0.00	4.51
116	95	49115	49116g	0.05152	1.3080E+02	+/-	4.691E+00	3.59	0.00	3.59
117	96	49115	49116m	0.05155	4.9237E+02	+/-	1.765E+01	3.58	0.00	3.58
118	97	57139	1	0.07087	6.9101E+03	+/-	0.000E+00	0.00	0.00	0.00
119	98	57139	2	0.07075	6.8545E+03	+/-	0.000E+00	0.00	0.00	0.00
120	99	57139	102	0.04388	3.1329E+01	+/-	2.638E+00	8.42	0.00	8.42
121	100	64000	1	0.06631	1.0627E+04	+/-	0.000E+00	0.00	0.00	0.00
122	101	64000	2	0.06585	9.6824E+03	+/-	0.000E+00	0.00	0.00	0.00
123	102	64000	101	0.04833	6.7477E+02	+/-	0.000E+00	0.00	0.00	0.00
124	103	73181	1	0.06566	1.1267E+04	+/-	0.000E+00	0.00	0.00	0.00
125	104	73181	2	0.06534	9.6788E+03	+/-	0.000E+00	0.00	0.00	0.00
126	105	73181	102	0.04894	5.8826E+02	+/-	2.798E+01	4.76	0.00	4.76
127	106	74186	1	0.06352	1.2751E+04	+/-	0.000E+00	0.00	0.00	0.00
128	107	74186	2	0.06316	1.2505E+04	+/-	0.000E+00	0.00	0.00	0.00
129	108	74186	102	0.05593	1.5779E+02	+/-	3.189E+00	2.02	0.00	2.02
130	109	79197	1	0.06563	1.2756E+04	+/-	0.000E+00	0.00	0.00	0.00
131	110	79197	2	0.06564	1.2159E+04	+/-	0.000E+00	0.00	0.00	0.00
132	111	79197	102	0.05151	4.9655E+02	+/-	2.514E+00	0.51	0.00	0.51
133	112	80199	80199m	0.61568	8.4684E-04	+/-	7.158E-05	8.45	0.00	8.45
134	113	90232	1	0.06993	1.4571E+04	+/-	0.000E+00	0.00	0.00	0.00
135	114	90232	2	0.06898	1.3831E+04	+/-	0.000E+00	0.00	0.00	0.00
136	115	90232	18	0.10704	2.2495E-03	+/-	1.705E-03	75.82	0.00	75.82

137	116	90232	102	0.04967	3.8616E+02	+/-	4.593E+00	1.19	0.00	1.19
138	117	92235	1	0.06974	1.4312E+04	+/-	0.000E+00	0.00	0.00	0.00
139	118	92235	18	0.06425	1.9959E+03	+/-	2.425E+01	1.22	0.00	1.22
140	119	92238	1	0.06974	1.4096E+04	+/-	0.000E+00	0.00	0.00	0.00
141	120	92238	2	0.06866	1.3387E+04	+/-	0.000E+00	0.00	0.00	0.00
142	121	92238	18	0.07469	9.2815E-02	+/-	6.498E-03	7.00	0.00	7.00
143	122	92238	102	0.04748	3.1048E+02	+/-	4.737E+00	1.53	0.00	1.53
144	123	93237	1	0.06823	1.4221E+04	+/-	0.000E+00	0.00	0.00	0.00
145	124	93237	2	0.06782	1.1911E+04	+/-	0.000E+00	0.00	0.00	0.00
146	125	93237	18	0.10126	2.4506E+01	+/-	5.068E+00	20.68	0.00	20.68
147	126	94239	1	0.06979	1.4315E+04	+/-	0.000E+00	0.00	0.00	0.00
148	127	94239	2	0.06854	1.1430E+04	+/-	0.000E+00	0.00	0.00	0.00
149	128	94239	18	0.0729	1.7830E+03	+/-	2.249E+01	1.26	0.00	1.26
150	129	95241	1	0.07108	1.4678E+04	+/-	0.000E+00	0.00	0.00	0.00
151	130	95241	2	0.07186	1.2385E+04	+/-	0.000E+00	0.00	0.00	0.00
152	131	95241	18	0.08291	1.8990E+01	+/-	5.687E-01	2.99	0.00	2.99
153										
154										