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Authors

Lum, Jacqueline K.
Light, James H.
Asaro, Frank.

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Ernest O. Lawrence

*Radiation
Laboratory*

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TRANSITION PROBABILITIES:

I ODD-MASS NUCLIDES

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CLEBSCH-GORDAN COEFFICIENTS FOR NUCLEAR TRANSITION PROBABILITIES:

I ODD-MASS NUCLIDES

Jacqueline K. Lum, James H. Light, and Frank Asaro

August 25, 1961

REFERENCES

- * This work was done under the auspices of the U.S. Atomic Energy Commission.
1. Simon, Oak Ridge National Laboratory Report ORNL-1718, July 1954.
 2. J. O. Rasmussen, unpublished data.
 3. G. Racah, Phys. Rev. 62, 438 (1942).

Table of Half-Integral
Clebsch-Gordan Coefficients

α K_i	γ K_f	a I_i	b L	c I_f	$\left[\begin{matrix} abc \\ \alpha\beta\gamma \end{matrix} \right]^2$	$\left[\begin{matrix} abc \\ \alpha\beta\gamma \end{matrix} \right]$
1/2	1/2	1/2	0	1/2	1.000000	+ 1.000000
1/2	1/2	1/2	1	1/2	.333333	+ .577350
				3/2	.666667	+ .816497
1/2	1/2	1/2	2	3/2	.400000	+ .632456
				5/2	.600000	+ .774597
1/2	1/2	1/2	3	5/2	.428571	+ .659654
				7/2	.571429	+ .755929
1/2	1/2	1/2	4	7/2	.444444	+ .666667
				9/2	.555556	+ .745356
1/2	1/2	1/2	5	9/2	.454545	+ .674200
				11/2	.545455	+ .738549
1/2	1/2	1/2	6	11/2	.461538	+ .679366
				13/2	.538462	+ .733799
1/2	1/2	1/2	7	13/2	.466667	+ .683130
				15/2	.533333	+ .730297
1/2	1/2	3/2	0	3/2	1.000000	+ 1.000000
1/2	1/2	3/2	1	1/2	.333333	- .577350
				3/2	.066667	- .258199
				5/2	.600000	+ .774597
1/2	1/2	3/2	2	1/2	.200000	- .447214
				3/2	.200000	- .447214
				5/2	.085714	+ .292770
				7/2	.514286	+ .717137
1/2	1/2	3/2	3	3/2	.257143	- .507093
				5/2	.171429	+ .414039
				7/2	.095238	+ .308607
				9/2	.476190	+ .690066
1/2	1/2	3/2	4	5/2	.285714	- .534522
				7/2	.158730	- .398410
				9/2	.101010	+ .317821
				11/2	.454545	+ .617420
1/2	1/2	3/2	5	7/2	.303030	- .550482
				9/2	.151515	- .389249
				11/2	.104895	+ .323875
				13/2	.440559	+ .663747
1/2	1/2	3/2	6	9/2	.314685	- .560968
				11/2	.146853	- .383214
				13/2	.107692	+ .328165
				15/2	.430769	+ .656330

α	γ	a	b	c	$\left[\begin{matrix} abc \\ c\alpha\beta\gamma \end{matrix} \right]^2$	$\left[\begin{matrix} abc \\ c\alpha\beta\gamma \end{matrix} \right]$
K_i	K_f	I_i	L	I_f		
1/2	1/2	5/2	0	5/2	1.000000	+ 1.000000
1/2	1/2	5/2	1	3/2	.400000	- .632456
				5/2	.028571	+ .169031
				7/2	.571429	+ .755929
1/2	1/2	5/2	2	1/2	.200000	+ .447214
				3/2	.057143	- .239046
				5/2	.228571	- .478091
				7/2	.038095	+ .195180
				9/2	.476190	+ .690066
1/2	1/2	5/2	3	1/2	.142857	+ .377964
				3/2	.114286	+ .338062
				5/2	.076190	- .276026
				7/2	.190476	- .436436
				9/2	.043290	+ .208063
				11/2	.432900	+ .657952
1/2	1/2	5/2	4	3/2	.190476	+ .436436
				5/2	.095238	+ .308607
				7/2	.086580	- .294245
				9/2	.173160	- .416125
				11/2	.046620	+ .215917
				13/2	.407925	+ .638690
1/2	1/2	5/2	5	5/2	.216450	+ .465242
				7/2	.086580	+ .294245
				9/2	.093240	- .305352
				11/2	.163170	- .403943
				13/2	.048951	+ .221249
				15/2	.391608	+ .625786
1/2	1/2	7/2	0	7/2	1.000000	+ 1.000000
1/2	1/2	7/2	1	5/2	.428571	- .654654
				7/2	.015873	+ .125988
				9/2	.555556	+ .745356
1/2	1/2	7/2	2	3/2	.257143	+ .507093
				5/2	.028571	- .169031
				7/2	.238095	- .487950
				9/2	.021645	+ .147122
				11/2	.454545	+ .674200
1/2	1/2	7/2	3	1/2	.142857	- .377964
				3/2	.047619	+ .218218
				5/2	.142857	+ .377964
				7/2	.038961	- .197386
				9/2	.194805	- .441367
				11/2	.024975	+ .158035
				13/2	.407925	+ .638690

α	γ	a	b	c	$\left[\begin{matrix} c & abc \\ \alpha & \beta \gamma \end{matrix} \right]^2$	$\left[\begin{matrix} c & abc \\ \alpha & \beta \gamma \end{matrix} \right]$
K_i	K_f	I_i	L	I_f		
1/2	1/2	7/2	4	1/2	.111111	- .333333
				3/2	.079365	- .281718
				5/2	.064935	+ .254824
				7/2	.116883	+ .341882
				9/2	.044955	- .212026
				11/2	.174825	- .418121
				13/2	.027195	+ .164909
				15/2	.380730	+ .617033
				1/2	1/2	9/2
1/2	1/2	9/2	1	7/2	.444444	- .666667
				9/2	.010101	+ .100504
				11/2	.545455	+ .738549
1/2	1/2	9/2	2	5/2	.285714	+ .534522
				7/2	.017316	- .131590
				9/2	.242424	- .492366
				11/2	.013986	+ .118262
				13/2	.440559	+ .663747
1/2	1/2	9/2	3	3/2	.190476	- .436436
				5/2	.025974	+ .161165
				7/2	.155844	+ .394771
				9/2	.023976	- .154842
				11/2	.195804	- .442498
				13/2	.016317	+ .127738
				15/2	.391608	+ .625786
1/2	1/2	11/2	0	11/2	1.000000	+ 1.000000
1/2	1/2	11/2	1	9/2	.454545	- .674200
				11/2	.006993	+ .083624
				13/2	.538462	+ .733799
1/2	1/2	11/2	2	7/2	.303030	+ .550482
				9/2	.011655	- .107958
				11/2	.244755	- .494727
				13/2	.009790	+ .098945
				15/2	.430769	+ .656330
1/2	1/2	13/2	0	13/2	1.000000	+ 1.000000
1/2	1/2	13/2	1	11/2	.461539	- .679366
				13/2	.005128	+ .071611
				15/2	.133333	+ .365148
1/2	3/2	1/2	1	3/2	1.000000	+ 1.000000
1/2	3/2	1/2	2	3/2	.200000	+ .447214
				5/2	.800000	+ .894427

α	γ	a	b	c	$[C_{\alpha\beta\gamma}^{abc}]^2$	$[C_{\alpha\beta\gamma}^{abc}]$	
K_i	K_f	I_i	L	I_f			
1/2	3/2	1/2	3	5/2	.285714	+	.534522
				7/2	.714286	+	.845154
1/2	3/2	1/2	4	7/2	.333333	+	.577350
				9/2	.666667	+	.816497
1/2	3/2	1/2	5	9/2	.363636	+	.603023
				11/2	.636364	+	.797724
1/2	3/2	1/2	6	11/2	.384615	+	.620174
				13/2	.615385	+	.784465
1/2	3/2	1/2	7	13/2	.400000	+	.632456
				15/2	.600000	+	.774597
1/2	3/2	3/2	1	3/2	.400000	-	.632456
				5/2	.600000	+	.774597
1/2	3/2	3/2	2	3/2	.400000	-	.632456
				5/2	.028571	-	.169031
				7/2	.571429	+	.755929
1/2	3/2	3/2	3	3/2	.114286	-	.338062
				5/2	.350000	-	.591608
				7/2	.000000	-	.000000
				9/2	.535714	+	.731925
1/2	3/2	3/2	4	5/2	.178571	-	.422577
				7/2	.304762	-	.552052
				9/2	.007576	+	.087039
				11/2	.509091	+	.713506
1/2	3/2	3/2	5	7/2	.218182	-	.467099
				9/2	.272727	-	.522233
				11/2	.019580	+	.139930
				13/2	.489510	+	.699650
1/2	3/2	3/2	6	9/2	.244755	-	.494727
				11/2	.249750	-	.499750
				13/2	.030769	+	.175412
				15/2	.474725	+	.689003
1/2	3/2	5/2	1	3/2	.066667	+	.258199
				5/2	.457143	-	.676123
				7/2	.476190	+	.690066
1/2	3/2	5/2	2	3/2	.257143	+	.507093
				5/2	.171429	-	.414039
				7/2	.095238	-	.308607
				9/2	.476190	+	.690066
1/2	3/2	5/2	3	3/2	.257143	+	.507093
				5/2	.028571	+	.169031
				7/2	.238095	-	.487950
				9/2	.021645	-	.147122
				11/2	.454545	+	.674200

α K_i	γ K_f	a I_i	b L	c I_f	$\left[\begin{matrix} abc \\ c_{\alpha\beta\gamma} \end{matrix} \right]^2$	$\left[\begin{matrix} abc \\ c_{\alpha\beta\gamma} \end{matrix} \right]$					
1/2	3/2	5/2	4	3/2	.079365	+	.281718				
				5/2	.238095	+	.487950				
				7/2	.000289	+	.016988				
				9/2	.243867	-	.493829				
				11/2	.003263	-	.057126				
				13/2	.435120	+	.659637				
1/2	3/2	5/2	5	5/2	.129870	+	.360375				
				7/2	.209524	+	.457738				
				9/2	.004662	-	.068279				
				11/2	.236364	-	.486172				
				13/2	.000000		.000000				
				15/2	.419580	+	.647750				
1/2	3/2	7/2	1	5/2	.107143	-	.327327				
				7/2	.476190	-	.690066				
				9/2	.416667	+	.645497				
1/2	3/2	7/2	2	3/2	.057143	-	.239046				
				5/2	.288095	+	.536745				
				7/2	.095238	-	.308607				
				9/2	.135281	-	.367806				
				11/2	.424242	+	.651337				
1/2	3/2	7/2	3	3/2	.190476	-	.436436				
				5/2	.095238	+	.308607				
				7/2	.086580	+	.294245				
				9/2	.173160	-	.416125				
				11/2	.046620	-	.215917				
				13/2	.407925	+	.638690				
1/2	3/2	7/2	4	3/2	.190476	-	.436436				
				5/2	.025974	-	.161165				
				7/2	.155844	+	.394771				
				9/2	.023976	+	.154842				
				11/2	.195804	-	.442498				
				13/2	.016317	-	.127738				
1/2	3/2	9/2	1	7/2	.133333	+	.365148				
				9/2	.484848	-	.696311				
				11/2	.381818	+	.617914				
				1/2	3/2	9/2	2	5/2	.095238	-	.308607
								7/2	.292640	+	.540963
								9/2	.060606	-	.246183
11/2	.159907	-	.399883								
1/2	3/2	9/2	3	13/2	.391608	+	.625786				
				3/2	.047619	+	.218218				
				5/2	.212121	-	.460566				

α	γ	a	b	c	$\left[C_{\alpha\beta\gamma}^{abc} \right]^2$	$\left[C_{\alpha\beta\gamma}^{abc} \right]$
K_i	K_f	I_i	L	I_f		
1/2	3/2	9/2	3	7/2	.042424	+ .205971
				9/2	.120213	+ .346718
				11/2	.134732	- .367059
				13/2	.065268	- .255476
				15/2	.377622	+ .614510
1/2	3/2	11/2	1	9/2	.151515	+ .389249
				11/2	.489511	- .699650
				13/2	.358974	+ .599145
1/2	3/2	11/2	2	7/2	.121212	- .348155
				9/2	.291375	+ .539792
				11/2	.041958	- .204837
				13/2	.176224	- .419790
				15/2	.369231	+ .607644
1/2	3/2	13/2	1	11/2	.164835	+ .405999
				13/2	.492308	- .701646
				15/2	.342857	+ .585540
1/2	5/2	1/2	2	5/2	1.000000	+ 1.000000
1/2	5/2	1/2	3	5/2	.142857	+ .377964
				7/2	.857143	+ .925820
1/2	5/2	1/2	4	7/2	.222222	+ .471405
				9/2	.777778	+ .881917
1/2	5/2	1/2	5	9/2	.272727	+ .522233
				11/2	.727273	+ .852803
1/2	5/2	1/2	6	11/2	.307692	+ .554700
				13/2	.692308	+ .832050
1/2	5/2	1/2	7	13/2	.333333	+ .577350
				15/2	.666667	+ .816497
1/2	5/2	3/2	2	5/2	.571429	- .755929
				7/2	.428571	+ .654654
1/2	5/2	3/2	3	5/2	.357143	- .597614
				7/2	.142857	- .377964
				9/2	.500000	+ .707107
1/2	5/2	3/2	4	5/2	.071429	- .267261
				7/2	.384127	- .619780
				9/2	.035354	- .188025
				11/2	.509091	+ .713506
1/2	5/2	3/2	5	7/2	.127273	- .356753
				9/2	.363636	- .603023
				11/2	.005594	- .074796
				13/2	.503497	+ .709575
1/2	5/2	3/2	6	9/2	.167832	- .409673
				11/2	.337662	- .581087
				13/2	.000000	.000000
				15/2	.494505	+ .703211

α	γ	a	b	c	$[C_{\alpha\beta\gamma}^{abc}]^2$	$[C_{\alpha\beta\gamma}^{abc}]$
K_i	K_f	I_i	L	I_f		
1/2	5/2	5/2	2	5/2	.214286	+ .462910
				7/2	.507937	- .712697
				9/2	.277778	+ .527046
1/2	5/2	5/2	3	5/2	.357143	+ .597614
				7/2	.031746	- .178174
				9/2	.247475	- .497468
				11/2	.363636	+ .603023
1/2	5/2	5/2	4	5/2	.214286	+ .462910
				7/2	.140260	+ .374513
				9/2	.136364	- .369274
				11/2	.117483	- .342757
				13/2	.391608	+ .625786
1/2	5/2	5/2	5	5/2	.045454	+ .213201
				7/2	.258586	+ .508513
				9/2	.047009	+ .216815
				11/2	.193407	- .439780
				13/2	.055944	- .236525
				15/2	.399600	+ .632140
1/2	5/2	7/2	2	5/2	.047620	- .218218
				7/2	.285714	+ .534522
				9/2	.454545	- .674200
				11/2	.212121	+ .460566
1/2	5/2	7/2	3	5/2	.190476	- .436436
				7/2	.233766	+ .483494
				9/2	.000000	.000000
				11/2	.282051	- .531085
				13/2	.293706	+ .541947
1/2	5/2	7/2	4	5/2	.259740	- .509647
				7/2	.002886	+ .053722
				9/2	.198912	+ .445996
				11/2	.048951	- .221249
				13/2	.163170	- .403943
				15/2	.326340	+ .571262
1/2	5/2	9/2	2	5/2	.004762	+ .069007
				7/2	.083117	- .288300
				9/2	.318182	+ .564076
				11/2	.417716	- .646309
				13/2	.176224	+ .419790
1/2	5/2	9/2	3	5/2	.054113	+ .232621
				7/2	.233766	- .483494
				9/2	.157343	+ .396664
				11/2	.009324	+ .096561
				13/2	.293706	- .541947
				15/2	.251748	+ .501745

α K_i	γ K_f	a I_i	b L	c I_f	$[C_{\alpha\beta\gamma}^{abc}]^2$	$[C_{\alpha\beta\gamma}^{abc}]$
1/2	5/2	11/2	2	7/2	.010101	+ .010050
				9/2	.108780	- .329818
				11/2	.335664	+ .579365
				13/2	.391608	- .625786
				15/2	.153846	+ .392232
1/2	7/2	1/2	3	7/2	1.000000	+ 1.000000
1/2	7/2	1/2	4	7/2	.111111	+ .333333
				9/2	.888889	+ .942809
1/2	7/2	1/2	5	9/2	.181818	+ .426401
				11/2	.818182	+ .904534
1/2	7/2	1/2	6	11/2	.230769	+ .480384
				13/2	.769231	+ .877058
1/2	7/2	1/2	7	13/2	.266667	+ .516398
				15/2	.733333	+ .856349
1/2	7/2	3/2	3	7/2	.666667	- .816497
				9/2	.333333	+ .577350
1/2	7/2	3/2	4	7/2	.311111	- .557773
				9/2	.252525	- .502519
				11/2	.436364	+ .660578
1/2	7/2	3/2	5	7/2	.048485	- .220193
				9/2	.378788	- .615457
				11/2	.100699	- .317332
				13/2	.472028	+ .687043
1/2	7/2	3/2	6	9/2	.094406	- .307255
				11/2	.383616	- .619368
				13/2	.038462	- .196116
				15/2	.483516	+ .695353
1/2	7/2	5/2	3	7/2	.333333	+ .577350
				9/2	.484848	- .696311
				11/2	.181818	+ .426401
1/2	7/2	5/2	4	7/2	.381818	+ .617914
				9/2	.000000	.000000
				11/2	.338462	- .581775
				13/2	.279720	+ .528886
1/2	7/2	5/2	5	7/2	.169697	+ .411943
				9/2	.233100	+ .482805
				11/2	.057742	- .240296
				13/2	.209790	- .458029
				15/2	.329670	+ .574169
1/2	7/2	7/2	3	7/2	.121212	- .348155
				9/2	.378788	+ .615457
				11/2	.377622	- .614510
				13/2	.122378	+ .349825

α	γ	a	b	c	$\left[C_{\alpha\beta\gamma}^{abc} \right]^2$	$\left[C_{\alpha\beta\gamma}^{abc} \right]$
K_i	K_f	I_i	L	I_f		
1/2	7/2	7/2	4	7/2	.282828	- .531816
				9/2	.133256	+ .365042
				11/2	.041958	+ .204837
				13/2	.336830	- .580370
				15/2	.205128	+ .452910
1/2	7/2	9/2	3	7/2	.030303	+ .174078
				9/2	.186480	- .431834
				11/2	.377622	+ .614510
				13/2	.313287	- .559720
				15/2	.092308	+ .303822
1/2	9/2	1/2	4	9/2	1.000000	+ 1.000000
1/2	9/2	1/2	5	9/2	.090909	+ .301511
				11/2	.909091	+ .953463
1/2	9/2	1/2	6	11/2	.153846	+ .392232
				13/2	.846154	+ .919866
1/2	9/2	1/2	7	13/2	.200000	+ .447214
				15/2	.800000	+ .894427
1/2	9/2	3/2	4	9/2	.727273	- .852803
				11/2	.272727	+ .522233
1/2	9/2	3/2	5	9/2	.272727	- .522233
				11/2	.342657	- .585369
				13/2	.384615	+ .620174
1/2	9/2	3/2	6	9/2	.034965	- .186989
				11/2	.360639	- .600533
				13/2	.169231	- .411377
				15/2	.435165	+ .659670
1/2	9/2	5/2	4	9/2	.424242	+ .651339
				11/2	.447552	- .668994
				13/2	.128205	+ .358057
1/2	9/2	5/2	5	9/2	.377622	+ .614510
				11/2	.017982	+ .134097
				13/2	.384615	- .620174
				15/2	.219780	+ .468807
1/2	9/2	7/2	4	9/2	.195804	- .442498
				11/2	.419580	+ .647750
				13/2	.307692	- .554700
				15/2	.076923	+ .277350
1/2	11/2	1/2	5	11/2	1.000000	+ 1.000000
1/2	11/2	1/2	6	11/2	.076923	+ .277350
				13/2	.923077	+ .960769
1/2	11/2	1/2	7	13/2	.133333	+ .365148
				15/2	.866667	+ .930949

α	γ	a	b	c	$\left[\begin{smallmatrix} abc \\ \alpha\beta\gamma \end{smallmatrix} \right]^2$	$\left[\begin{smallmatrix} abc \\ \alpha\beta\gamma \end{smallmatrix} \right]$
K_i	K_f	I_i	L	I_f		
1/2	11/2	3/2	5	11/2	.769231	- .877058
				13/2	.230769	+ .480384
1/2	11/2	3/2	6	11/2	.241758	- .491689
				13/2	.415385	- .644503
				15/2	.342857	+ .585540
1/2	11/2	5/2	5	11/2	.494506	+ .703211
				13/2	.410256	- .640513
				15/2	.095238	+ .308607
1/2	13/2	1/2	6	13/2	1.000000	+ 1.000000
1/2	13/2	1/2	7	13/2	.066667	+ .258199
				15/2	.933333	+ .966092
1/2	13/2	3/2	6	13/2	.800000	- .894427
				15/2	.200000	+ .447214
1/2	15/2	1/2	7	15/2	1.000000	+ 1.000000
3/2	1/2	3/2	1	1/2	.500000	+ .707107
				3/2	.400000	+ .632456
				5/2	.100000	+ .316228
3/2	1/2	3/2	2	1/2	.100000	+ .316228
				3/2	.400000	+ .632456
				5/2	.385714	+ .621059
				7/2	.114286	+ .338062
3/2	1/2	3/2	3	3/2	.114286	+ .338062
				5/2	.385714	+ .621059
				7/2	.380952	+ .617213
				9/2	.119048	+ .345033
3/2	1/2	3/2	4	5/2	.119048	+ .345033
				7/2	.380952	+ .617213
				9/2	.378788	+ .615457
				11/2	.121212	+ .348156
3/2	1/2	3/2	5	7/2	.121212	+ .348156
				9/2	.378788	+ .615457
				11/2	.377622	+ .614510
				13/2	.122378	+ .349825
3/2	1/2	3/2	6	9/2	.122378	+ .349825
				11/2	.377622	+ .614510
				13/2	.376923	+ .613941
				15/2	.123077	+ .350823
3/2	1/2	5/2	1	3/2	.400000	+ .632456
				5/2	.457143	+ .676123
				7/2	.142857	+ .377964

α	γ	a	b	c	$[C_{\alpha\beta\gamma}^{abc}]^2$	$[C_{\alpha\beta\gamma}^{abc}]$
K_i	K_f	I_i	L	I_f		
3/2	1/2	5/2	2	1/2	.266667	- .516398
				3/2	.019048	- .138013
				5/2	.171429	+ .414039
				7/2	.384127	+ .619780
				9/2	.158730	+ .398410
3/2	1/2	5/2	3	1/2	.095238	- .308607
				3/2	.233333	- .483046
				5/2	.028571	- .169031
				7/2	.126984	+ .356348
				9/2	.353535	+ .594593
				11/2	.162338	+ .402911
3/2	1/2	5/2	4	3/2	.119048	- .345033
				5/2	.238095	- .487950
				7/2	.034632	- .186097
				9/2	.108225	+ .328976
				11/2	.336830	+ .580370
				13/2	.163170	+ .403943
3/2	1/2	5/2	5	5/2	.129870	- .360375
				7/2	.243867	- .493829
				9/2	.038850	- .197104
				11/2	.097902	+ .312893
				13/2	.326340	+ .571262
				15/2	.163170	+ .403943
3/2	1/2	7/2	1	5/2	.357143	+ .597614
				7/2	.476190	+ .690066
				9/2	.166667	+ .408248
3/2	1/2	7/2	2	3/2	.285714	- .534522
				5/2	.071429	- .267261
				7/2	.095238	+ .308607
				9/2	.365801	+ .604815
				11/2	.181818	+ .426401
3/2	1/2	7/2	3	1/2	.178571	+ .422577
				3/2	.000000	.000000
				5/2	.178571	- .422577
				7/2	.086580	- .294245
				9/2	.053030	+ .230283
				11/2	.319680	+ .565403
				13/2	.183566	+ .428447
3/2	1/2	7/2	4	1/2	.083333	+ .288675
				3/2	.152381	+ .390360
				5/2	.000216	+ .014712
				7/2	.155844	- .394771
				9/2	.093656	- .306033
				11/2	.037296	+ .193122
				13/2	.294522	+ .542699
				15/2	.182751	+ .427493

α	γ	a	b	c	$[C_{\alpha\beta\gamma}^{abc}]^2$	$[C_{\alpha\beta\gamma}^{abc}]$
K_i	K_f	I_i	L	I_f		
3/2	1/2	9/2	1	7/2	.333333	+ .577350
				9/2	.484848	+ .696311
				11/2	.181818	+ .426401
3/2	1/2	9/2	2	5/2	.285714	- .534522
				7/2	.108225	- .328976
				9/2	.060606	+ .246183
				11/2	.349650	+ .591312
				13/2	.195804	+ .442498
3/2	1/2	9/2	3	3/2	.214286	+ .462910
				5/2	.012987	+ .113961
				7/2	.138528	- .372194
				9/2	.120213	- .346718
				11/2	.024476	+ .156447
				13/2	.293706	+ .541947
				15/2	.195804	+ .442498
3/2	1/2	11/2	1	9/2	.318182	+ .564076
				11/2	.489511	+ .699650
				13/2	.192308	+ .438529
3/2	1/2	11/2	2	7/2	.282828	- .531816
				9/2	.133256	- .365042
				11/2	.041958	+ .204837
				13/2	.336830	+ .580370
				15/2	.205128	+ .452911
3/2	1/2	13/2	1	11/2	.307692	+ .554700
				13/2	.492308	+ .701646
				15/2	.200000	+ .447214
3/2	3/2	3/2	0	3/2	1.000000	+ 1.000000
3/2	3/2	3/2	1	3/2	.600000	+ .774597
				5/2	.400000	+ .632456
3/2	3/2	3/2	2	3/2	.200000	+ .447214
				5/2	.514286	+ .717137
				7/2	.285714	+ .534522
3/2	3/2	3/2	3	3/2	.028571	+ .169031
				5/2	.257143	+ .507093
				7/2	.476190	+ .690066
				9/2	.238095	+ .487950
2/2	3/2	3/2	4	5/2	.047619	+ .218218
				7/2	.285714	+ .534522
				9/2	.454545	+ .674200
				11/2	.212121	+ .460566
3/2	3/2	3/2	5	7/2	.060606	+ .246183
				9/2	.303030	+ .550482
				11/2	.440559	+ .663746
				13/2	.195804	+ .442498

α	γ	a	b	c	$[C_{\alpha\beta\gamma}^{abc}]^2$	$[C_{\alpha\beta\gamma}^{abc}]$
K_i	K_f	I_i	L	I_f		
3/2	3/2	3/2	6	9/2	.069930	+ .264443
				11/2	.314685	+ .560968
				13/2	.430769	+ .656330
				15/2	.184615	+ .429669
3/2	3/2	5/2	0	5/2	1.000000	+ 1.000000
3/2	3/2	5/2	1	3/2	.266667	- .516398
				5/2	.257143	+ .507093
				7/2	.476190	+ .690066
3/2	3/2	5/2	2	3/2	.342857	- .585540
				5/2	.014286	- .119523
				7/2	.285714	+ .534522
				9/2	.357143	+ .597614
3/2	3/2	5/2	3	3/2	.171429	- .414039
				5/2	.233333	- .483046
				7/2	.000000	.000000
				9/2	.292208	+ .540562
				11/2	.303030	+ .550482
3/2	3/2	5/2	4	3/2	.031746	- .178174
				5/2	.214286	- .462910
				7/2	.184704	- .429772
				9/2	.003608	+ .060062
				11/2	.293706	+ .541947
				13/2	.271950	+ .521489
3/2	3/2	5/2	5	5/2	.054113	- .232621
				7/2	.233766	- .483494
				9/2	.157343	- .396664
				11/2	.009324	+ .096561
				13/2	.293706	+ .541947
				15/2	.251748	+ .501745
3/2	3/2	7/2	0	7/2	1.000000	+ 1.000000
3/2	3/2	7/2	1	5/2	.357143	- .597614
				7/2	.142857	+ .377964
				9/2	.500000	+ .707107
3/2	3/2	7/2	2	3/2	.142857	+ .377964
				5/2	.214286	- .462910
				7/2	.085714	- .292770
				9/2	.175325	+ .418718
				11/2	.381818	+ .617914
3/2	3/2	7/2	3	3/2	.238095	+ .487950
				5/2	.000000	.000000
				7/2	.212121	- .460566
				9/2	.034632	- .186097
				11/2	.188811	+ .434524
				13/2	.326340	+ .571262

α K_i	γ K_f	a I_i	b L	c I_f	$[C_{\alpha\beta\gamma}^{abc}]^2$	$[C_{\alpha\beta\gamma}^{abc}]$
3/2	3/2	7/2	4	3/2	.142857	+ .377964
				5/2	.138528	+ .372194
				7/2	.012987	- .113961
				9/2	.199800	- .446990
				11/2	.016317	- .127738
				13/2	.195804	+ .442498
				15/2	.293706	+ .541947
3/2	3/2	9/2	0	9/2	1.000000	+ 1.000000
3/2	3/2	9/2	1	7/2	.400000	- .632456
				9/2	.090909	+ .301511
				11/2	.509091	+ .713506
3/2	3/2	9/2	2	5/2	.214286	+ .462910
				7/2	.140260	- .374513
				9/2	.136364	- .369274
				11/2	.117483	+ .342757
				13/2	.391608	+ .625786
3/2	3/2	9/2	3	3/2	.095238	- .308607
				5/2	.175325	+ .418718
				7/2	.027706	+ .166450
				9/2	.160007	- .400008
				11/2	.075525	- .274817
				13/2	.130536	+ .361298
15/2	.335664	+ .579365				
3/2	3/2	11/2	0	11/2	1.000000	+ 1.000000
3/2	3/2	11/2	1	9/2	.424242	- .651339
				11/2	.062937	+ .250873
				13/2	.512821	+ .716115
3/2	3/2	11/2	2	7/2	.254545	+ .504525
				9/2	.097902	- .312893
				11/2	.168032	- .409917
				13/2	.083916	+ .289683
				15/2	.395604	+ .628971
3/2	3/2	13/2	0	13/2	1.000000	+ 1.000000
3/2	3/2	13/2	1	11/2	.439560	- .662994
				13/2	.046154	+ .214834
				15/2	.514286	+ .717137
3/2	3/2	15/2	0	15/2	1.000000	+ 1.000000
3/2	5/2	3/2	1	5/2	1.000000	+ 1.000000
3/2	5/2	3/2	2	5/2	.428571	+ .654654
				7/2	.571429	+ .755929
3/2	5/2	3/2	3	5/2	.107143	+ .327327
				7/2	.476190	+ .690066
				9/2	.416667	+ .645497

α	γ	a	b	c	$\left[C_{\alpha\beta\gamma}^{abc} \right]^2$	$\left[C_{\alpha\beta\gamma}^{abc} \right]$	
K_i	K_f	I_i	L	I_f			
3/2	5/2	3/2	4	5/2	.011905	+	.109109
				7/2	.171429	+	.414039
				9/2	.477273	+	.690849
				11/2	.339394	+	.582575
3/2	5/2	3/2	5	7/2	.024242	+	.155700
				9/2	.212121	+	.460566
				11/2	.469930	+	.685514
				13/2	.293706	+	.541947
3/2	5/2	3/2	6	9/2	.034965	+	.186989
				11/2	.239760	+	.489653
				13/2	.461538	+	.679366
				15/2	.263736	+	.513553
3/2	5/2	5/2	1	5/2	.285714	-	.534522
				7/2	.714286	+	.845154
3/2	5/2	5/2	2	5/2	.428571	-	.654654
				7/2	.015873	+	.125988
				9/2	.555556	+	.745356
3/2	5/2	5/2	3	5/2	.285714	-	.534522
				7/2	.158730	-	.398410
				9/2	.101010	+	.317821
				11/2	.454545	+	.674200
3/2	5/2	5/2	4	5/2	.095238	-	.308607
				7/2	.292641	-	.540963
				9/2	.060606	-	.246183
				11/2	.159907	+	.399883
				13/2	.391608	+	.625786
3/2	5/2	5/2	5	5/2	.012987	-	.113961
				7/2	.152670	-	.390730
				9/2	.266511	-	.516247
				11/2	.022378	-	.149592
				13/2	.195804	+	.442498
				15/2	.349650	+	.591312
3/2	5/2	7/2	1	5/2	.035714	+	.188982
				7/2	.380952	-	.617213
				9/2	.583333	+	.763763
3/2	5/2	7/2	2	5/2	.178571	+	.422577
				7/2	.304762	-	.552052
				9/2	.007576	-	.087039
				11/2	.509091	+	.713506

α	γ	a	b	c	$\left[C_{\alpha\beta\gamma}^{abc} \right]^2$	$\left[C_{\alpha\beta\gamma}^{abc} \right]$
K_i	K_f	I_i	L	I_f		
3/2	5/2	7/2	3	5/2	.285714	+ .534522
				7/2	.017316	- .131590
				9/2	.242424	- .492366
				11/2	.013986	+ .118262
				13/2	.440559	+ .663747
3/2	5/2	7/2	4	5/2	.216450	+ .465242
				7/2	.086580	+ .294245
				9/2	.093240	- .305352
				11/2	.163170	- .403943
				13/2	.048951	+ .221249
				15/2	.391608	+ .625786
3/2	5/2	9/2	1	7/2	.066667	+ .258199
				9/2	.424242	- .651339
				11/2	.509091	+ .713506
3/2	5/2	9/2	2	5/2	.028571	- .169031
				7/2	.250216	+ .500216
				9/2	.212121	- .460566
				11/2	.039161	- .197892
				13/2	.469930	+ .685514
3/2	5/2	9/2	3	5/2	.129870	- .360375
				7/2	.209524	+ .457738
				9/2	.004662	+ .068279
				11/2	.236364	- .486172
				13/2	.000000	.000000
				15/2	.419580	+ .647750
3/2	5/2	11/2	1	9/2	.090909	+ .301511
				11/2	.447552	- .668994
				13/2	.461538	+ .679366
3/2	5/2	11/2	2	7/2	.056566	- .237835
				9/2	.280497	+ .529620
				11/2	.153447	- .391723
				13/2	.069930	- .264443
				15/2	.439560	+ .662994
3/2	5/2	13/2	1	11/2	.109890	+ .331497
				13/2	.461538	- .679366
				15/2	.428571	+ .654654
3/2	7/2	3/2	2	7/2	1.000000	+ 1.000000
3/2	7/2	3/2	3	7/2	.333333	+ .577350
				9/2	.666667	+ .816497

α	γ	a	b	c	$\left[\begin{smallmatrix} abc \\ C_{\alpha\beta\gamma} \end{smallmatrix} \right]^2$	$\left[\begin{smallmatrix} abc \\ C_{\alpha\beta\gamma} \end{smallmatrix} \right]$
K_i	K_f	I_i	L	I_f		
3/2	7/2	3/2	4	7/2	.066667	+ .258199
				9/2	.424242	+ .651339
				11/2	.509091	+ .713506
3/2	7/2	3/2	5	7/2	.006061	+ .077850
				9/2	.121212	+ .348155
				11/2	.453147	+ .673162
				13/2	.419580	+ .647750
3/2	7/2	3/2	6	9/2	.013986	+ .118262
				11/2	.161838	+ .402291
				13/2	.461538	+ .679366
				15/2	.362637	+ .602194
3/2	7/2	5/2	2	7/2	.444444	- .666667
				9/2	.555556	+ .745356
3/2	7/2	5/2	3	7/2	.444444	- .666667
				9/2	.010101	- .100504
				11/2	.545455	+ .738549
3/2	7/2	5/2	4	7/2	.218182	- .467099
				9/2	.272727	- .522233
				11/2	.019580	+ .139930
				13/2	.489511	+ .699650
3/2	7/2	5/2	5	7/2	.056566	- .237835
				9/2	.280497	- .529620
				11/2	.153447	- .391723
				13/2	.069930	+ .264443
				15/2	.439560	+ .662994
3/2	7/2	7/2	2	7/2	.133333	+ .365148
				9/2	.484848	- .696311
				11/2	.381818	+ .617914
3/2	7/2	7/2	3	7/2	.303030	+ .550482
				9/2	.151515	- .389249
				11/2	.104895	- .323875
				13/2	.440559	+ .663747
3/2	7/2	7/2	4	7/2	.303030	+ .550482
				9/2	.011655	+ .107958
				11/2	.244755	- .494727
				13/2	.009790	- .098945
				15/2	.430769	+ .656330

α K_i	γ K_f	a I_i	b L	c I_f	$\left[\begin{matrix} abc \\ c\alpha\beta\gamma \end{matrix} \right]^2$	$\left[\begin{matrix} abc \\ c\alpha\beta\gamma \end{matrix} \right]$
3/2	7/2	9/2	2	7/2	.024242	- .155700
				9/2	.212121	+ .460566
				11/2	.469930	- .685514
				13/2	.293706	+ .541947
3/2	7/2	9/2	3	7/2	.121212	- .348155
				9/2	.291375	+ .539792
				11/2	.041958	- .204837
				13/2	.176224	- .419790
				15/2	.369231	+ .607644
3/2	7/2	11/2	2	7/2	.002020	+ .044947
				9/2	.049728	- .222998
				11/2	.258941	+ .508863
				13/2	.447552	- .668994
				15/2	.241758	+ .491689
3/2	9/2	3/2	3	9/2	1.000000	+ 1.000000
3/2	9/2	3/2	4	9/2	.272727	+ .522233
				11/2	.727273	+ .852803
3/2	9/2	3/2	5	9/2	.045455	+ .213201
				11/2	.377622	+ .614510
				13/2	.576923	+ .759555
3/2	9/2	3/2	6	9/2	.003497	+ .059131
				11/2	.089910	+ .299850
				13/2	.423077	+ .650444
				15/2	.483516	+ .695353
3/2	9/2	5/2	3	9/2	.545455	- .738549
				11/2	.454545	+ .674200
3/2	9/2	5/2	4	9/2	.424242	- .651339
				11/2	.062937	- .250871
				13/2	.512821	+ .716115
3/2	9/2	5/2	5	9/2	.167832	- .409673
				11/2	.337662	- .581087
				13/2	.000000	.000000
				15/2	.494505	+ .703211
3/2	9/2	7/2	3	9/2	.227273	+ .476731
				11/2	.503496	- .709575
				13/2	.269231	+ .518875
3/2	9/2	7/2	4	9/2	.367133	+ .605915
				11/2	.055944	- .236525
				13/2	.207692	- .455733
				15/2	.369231	+ .607644

α	γ	a	b	c	$\left[\begin{matrix} abc \\ c\alpha\beta\gamma \end{matrix} \right]^2$	$\left[\begin{matrix} abc \\ c\alpha\beta\gamma \end{matrix} \right]$
K_i	K_f	I_i	L	I_f		
3/2	9/2	9/2	3	9/2	.069930	- .264443
				11/2	.314685	+ .560968
				13/2	.430769	- .656330
				15/2	.184615	+ .429669
3/2	11/2	3/2	4	11/2	1.000000	+ 1.000000
3/2	11/2	3/2	5	11/2	.230769	+ .480384
				13/2	.769231	+ .877058
3/2	11/2	3/2	6	11/2	.032967	+ .181757
				13/2	.338462	+ .581774
				15/2	.628571	+ .792825
3/2	11/2	5/2	4	11/2	.615385	- .784465
				13/2	.384615	+ .620174
3/2	11/2	5/2	5	11/2	.395604	- .628971
				13/2	.128205	- .358057
				15/2	.476190	+ .690066
3/2	11/2	7/2	4	11/2	.307692	+ .554700
				13/2	.492308	- .701646
				15/2	.200000	+ .447214
3/2	13/2	3/2	5	13/2	1.000000	+ 1.000000
3/2	13/2	3/2	6	13/2	.200000	+ .447214
				15/2	.800000	+ .894427
3/2	13/2	5/2	5	13/2	.666667	- .816497
				15/2	.333333	+ .577350
3/2	15/2	3/2	6	15/2	1.000000	+ 1.000000
5/2	1/2	5/2	2	1/2	.333333	+ .577350
				3/2	.380952	+ .617213
				5/2	.214286	+ .462910
				7/2	.063492	+ .251976
				9/2	.007937	+ .089087
5/2	1/2	5/2	3	1/2	.047619	+ .218218
				3/2	.238095	+ .487950
				5/2	.357143	+ .597614
				7/2	.253968	+ .503953
				9/2	.090188	+ .300312
				11/2	.012987	+ .113961

α	γ	a	b	c	$[C_{\alpha\beta\gamma}^{abc}]^2$	$[C_{\alpha\beta\gamma}^{abc}]$	
K_i	K_f	I_i	L	I_f			
5/2	1/2	5/2	4	3/2	.047619	+	.218218
				5/2	.214286	+	.462910
				7/2	.346320	+	.588490
				9/2	.270563	+	.520157
				11/2	.104895	+	.323875
				13/2	.016317	+	.127738
5/2	1/2	5/2	5	5/2	.045455	+	.213201
				7/2	.202020	+	.449467
				9/2	.339938	+	.583042
				11/2	.279720	+	.528886
				13/2	.114219	+	.337963
				15/2	.018648	+	.136558
5/2	1/2	7/2	2	3/2	.214286	+	.462910
				5/2	.380952	+	.617213
				7/2	.285714	+	.534522
				9/2	.103896	+	.322329
				11/2	.015152	+	.123091
5/2	1/2	7/2	3	1/2	.214286	-	.462910
				3/2	.071429	-	.267261
				5/2	.023810	+	.154303
				7/2	.233766	+	.483494
				9/2	.292208	+	.540562
				11/2	.140027	+	.374201
				13/2	.024476	+	.156447
5/2	1/2	7/2	4	1/2	.055556	-	.235702
				3/2	.192063	-	.438250
				5/2	.105195	-	.324337
				7/2	.002886	+	.053722
				9/2	.173438	+	.416458
				11/2	.283217	+	.532181
				13/2	.157187	+	.396468
				15/2	.030458	+	.174523
5/2	1/2	9/2	2	5/2	.166667	+	.408248
				7/2	.363636	+	.603023
				9/2	.318182	+	.564076
				11/2	.130536	+	.361298
				13/2	.020979	+	.144841
5/2	1/2	9/2	3	3/2	.200000	-	.447214
				5/2	.148485	-	.385337
				7/2	.000000		.000000
				9/2	.157343	+	.396664
				11/2	.291375	+	.539792
				13/2	.169231	+	.411377
				15/2	.033566	+	.183211

α	γ	a	b	c	$\left[\begin{matrix} c & abc \\ \alpha & \beta \gamma \end{matrix} \right]^2$	$\left[\begin{matrix} c & abc \\ \alpha & \beta \gamma \end{matrix} \right]$
K_i	K_f	I_i	L	I_f		
5/2	1/2	11/2	2	7/2	.141414	+ .376051
				9/2	.348096	+ .589997
				11/2	.335664	+ .579365
				13/2	.149184	+ .386244
				15/2	.025641	+ .160128
5/2	3/2	5/2	1	3/2	.666667	+ .816497
				5/2	.285714	+ .534522
				7/2	.047619	+ .218218
5/2	3/2	5/2	2	3/2	.285714	+ .534522
				5/2	.428571	+ .654654
				7/2	.238095	+ .487950
				9/2	.047619	+ .218218
5/2	3/2	5/2	3	3/2	.071429	+ .267261
				5/2	.285714	+ .534522
				7/2	.380952	+ .617213
				9/2	.216450	+ .465242
				11/2	.045455	+ .213201
5/2	3/2	5/2	4	3/2	.007937	+ .089087
				5/2	.095238	+ .308607
				7/2	.288600	+ .537215
				9/2	.360750	+ .600625
				11/2	.203963	+ .451622
				13/2	.043512	+ .208595
5/2	3/2	5/2	5	5/2	.012987	+ .113961
				7/2	.108225	+ .328976
				9/2	.291375	+ .539792
				11/2	.349650	+ .591312
				13/2	.195804	+ .442498
				15/2	.041958	+ .204837
5/2	3/2	7/2	1	5/2	.535714	+ .731925
				7/2	.380952	+ .617213
				9/2	.083333	+ .288675
5/2	3/2	7/2	2	3/2	.285714	- .534522
				5/2	.011905	+ .109109
				7/2	.304762	+ .552052
				9/2	.312771	+ .559259
				11/2	.084848	+ .291288
5/2	3/2	7/2	3	3/2	.238095	- .487950
				5/2	.119048	- .345033
				7/2	.017316	+ .131590
				9/2	.261905	+ .511766
				11/2	.282051	+ .531085
				13/2	.081585	+ .285631

α	γ	a	b	c	$C_{\alpha\beta\gamma}^{abc}{}^2$	$C_{\alpha\beta\gamma}^{abc}$
K_i	K_f	I_i	L	I_f		
5/2	3/2	7/2	4	3/2	.085714	- .292770
				5/2	.219481	- .468487
				7/2	.086580	- .294245
				9/2	.020813	+ .144265
				11/2	.244755	+ .494727
				13/2	.264336	+ .514136
				15/2	.078322	+ .279860
5/2	3/2	9/2	1	7/2	.466667	+ .683130
				9/2	.424242	+ .651339
				11/2	.109091	+ .330289
5/2	3/2	9/2	2	5/2	.333333	- .577350
				7/2	.006061	- .077850
				9/2	.212121	+ .460566
				11/2	.336597	+ .580170
				13/2	.111888	+ .334497
5/2	3/2	9/2	3	3/2	.166667	+ .408248
				5/2	.060606	- .246183
				7/2	.193939	- .440386
				9/2	.004662	- .068279
				11/2	.167866	+ .409714
				13/2	.298368	+ .546231
				15/2	.107892	+ .328469
5/2	3/2	11/2	1	9/2	.424242	+ .651339
				11/2	.447552	+ .668994
				13/2	.128205	+ .358057
5/2	3/2	11/2	2	7/2	.339394	- .582575
				9/2	.032634	- .180649
				11/2	.153447	+ .391723
				13/2	.342657	+ .585369
				15/2	.131868	+ .363137
5/2	3/2	13/2	1	11/2	.395604	+ .628971
				13/2	.461538	+ .679366
				15/2	.142857	+ .377964
5/2	5/2	5/2	0	5/2	1.000000	+ 1.000000
5/2	5/2	5/2	1	5/2	.714286	+ .845154
				7/2	.285714	+ .534522
5/2	5/2	5/2	2	5/2	.357143	+ .597614
				7/2	.476190	+ .690066
				9/2	.166667	+ .408248

α K_i	γ K_f	a I_i	b L	c I_f	$[C_{\alpha\beta\gamma}^{abc}]^2$	$[C_{\alpha\beta\gamma}^{abc}]$
5/2	5/2	5/2	3	5/2	.119048	+ .345033
				7/2	.380952	+ .617213
				9/2	.378788	+ .615457
				11/2	.121212	+ .348155
5/2	5/2	5/2	4	5/2	.023810	+ .154303
				7/2	.173160	+ .416125
				9/2	.378788	+ .615457
				11/2	.326340	+ .571262
				13/2	.097902	+ .312893
5/2	5/2	5/2	5	5/2	.002165	+ .046524
				7/2	.043290	+ .208063
				9/2	.203963	+ .451622
				11/2	.372960	+ .610705
				13/2	.293706	+ .541947
				15/2	.083916	+ .290571
5/2	5/2	7/2	0	7/2	1.000000	+ 1.000000
5/2	5/2	7/2	1	5/2	.214286	- .462910
				7/2	.396825	+ .629941
				9/2	.388889	+ .623610
5/2	5/2	7/2	2	5/2	.357143	- .597614
				7/2	.009524	+ .097590
				9/2	.378788	+ .615457
				11/2	.254545	+ .504525
5/2	5/2	7/2	3	5/2	.285714	- .534522
				7/2	.108225	- .328976
				9/2	.060606	+ .246183
				11/2	.349650	+ .591312
				13/2	.195804	+ .442498
5/2	5/2	7/2	4	5/2	.129870	- .360375
				7/2	.243867	- .493829
				9/2	.038850	- .197104
				11/2	.097902	+ .312893
				13/2	.326340	+ .571262
				15/2	.163170	+ .403943
5/2	5/2	9/2	0	9/2	1.000000	+ 1.000000
5/2	5/2	9/2	1	7/2	.311111	- .557773
				9/2	.252525	+ .502519
				11/2	.436364	+ .660578

α	γ	a	b	c	$[C_{\alpha\beta\gamma}^{abc}]^2$	$[C_{\alpha\beta\gamma}^{abc}]$
K_i	K_f	I_i	L	I_f		
5/2	5/2	9/2	2	5/2	.100000	+ .316228
				7/2	.303030	- .550482
				9/2	.015152	- .123091
				11/2	.279720	+ .528886
				13/2	.302098	+ .549634
5/2	5/2	9/2	3	5/2	.227273	+ .476731
				7/2	.048485	- .220193
				9/2	.203963	- .451622
				11/2	.000799	+ .028270
				13/2	.279720	+ .528886
15/2	.239760	+ .489653				
5/2	5/2	11/2	0	11/2	1.000000	+ 1.000000
5/2	5/2	11/2	1	9/2	.363636	- .603023
				11/2	.174825	+ .418121
				13/2	.461538	+ .679366
5/2	5/2	13/2	0	13/2	1.000000	+ 1.000000
5/2	5/2	13/2	1	11/2	.395604	- .628971
				13/2	.128205	+ .358057
				15/2	.476190	+ .690066
5/2	5/2	15/2	0	15/2	1.000000	+ 1.000000
5/2	7/2	5/2	1	7/2	1.000000	+ 1.000000
5/2	7/2	5/2	2	7/2	.555556	+ .745356
				9/2	.444444	+ .666667
5/2	7/2	5/2	3	7/2	.222222	+ .471405
				9/2	.505051	+ .710669
				11/2	.272727	+ .522233
5/2	7/2	5/2	4	7/2	.060606	+ .246183
				9/2	.303030	+ .550482
				11/2	.440559	+ .663747
				13/2	.195804	+ .442498
5/2	7/2	5/2	5	7/2	.010101	+ .100504
				9/2	.108780	+ .329818
				11/2	.335664	+ .579365
				13/2	.391608	+ .625786
				15/2	.153846	+ .392232
5/2	7/2	7/2	1	7/2	.222222	- .471405
				9/2	.777778	+ .881917

α	γ	a	b	c	$[C_{\alpha\beta\gamma}^{abc}]^2$	$[C_{\alpha\beta\gamma}^{abc}]$
K_i	K_f	I_i	L	I_f		
5/2	7/2	7/2	2	7/2	.400000	- .632456
				9/2	.090909	+ .301511
				11/2	.509091	+ .713506
5/2	7/2	7/2	3	7/2	.363636	- .603023
				9/2	.045455	- .213201
				11/2	.223776	+ .473050
				13/2	.367133	+ .605915
5/2	7/2	7/2	4	7/2	.202020	- .449467
				9/2	.235043	- .484812
				11/2	.000000	.000000
				13/2	.275758	+ .525126
				15/2	.287179	+ .535891
5/2	7/2	9/2	1	7/2	.022222	+ .149071
				9/2	.323232	- .568535
				11/2	.654545	+ .809040
5/2	7/2	9/2	2	7/2	.127273	+ .356753
				9/2	.363636	- .603023
				11/2	.005594	- .074796
				13/2	.503497	+ .709575
5/2	7/2	9/2	3	7/2	.254545	+ .504525
				9/2	.097902	- .312893
				11/2	.168032	- .409917
				13/2	.083916	+ .289683
				15/2	.395604	+ .628971
5/2	7/2	11/2	1	9/2	.045455	+ .213201
				11/2	.377622	- .614510
				13/2	.576923	+ .759555
5/2	7/2	11/2	2	7/2	.016162	- .127128
				9/2	.205517	+ .453339
				11/2	.291309	- .539730
				13/2	.003497	- .059131
				15/2	.483516	+ .695353
5/2	7/2	13/2	1	11/2	.065934	+ .256776
				13/2	.410256	- .640513
				15/2	.523810	+ .723747
5/2	9/2	5/2	2	9/2	1.000000	+ 1.000000
5/2	9/2	5/2	3	9/2	.454545	+ .674200
				11/2	.545455	+ .738549

α	γ	a	b	c	$[C_{\alpha\beta\gamma}^{abc}]^2$	$[C_{\alpha\beta\gamma}^{abc}]$
K_i	K_f	I_i	L	I_f		
5/2	9/2	5/2	4	9/2	.151515	+ .389249
				11/2	.489511	+ .699650
				13/2	.358974	+ .599145
5/2	9/2	5/2	5	9/2	.034965	+ .186989
				11/2	.239760	+ .489653
				13/2	.461538	+ .679366
				15/2	.263736	+ .513553
5/2	9/2	7/2	2	9/2	.363636	- .603023
				11/2	.636364	+ .797724
5/2	9/2	7/2	3	9/2	.454545	- .674200
				11/2	.006993	+ .083624
				13/2	.538462	+ .733799
5/2	9/2	7/2	4	9/2	.314685	- .560968
				11/2	.146853	- .383214
				13/2	.107692	+ .328165
				15/2	.430769	+ .656330
5/2	9/2	9/2	2	9/2	.090909	+ .301511
				11/2	.447552	- .668994
				13/2	.461538	+ .679366
5/2	9/2	9/2	3	9/2	.244755	+ .494727
				11/2	.249750	- .499750
				13/2	.030769	- .175412
				15/2	.474725	+ .689003
5/2	9/2	11/2	2	9/2	.013986	- .118262
				11/2	.161838	+ .402291
				13/2	.461538	- .679366
				15/2	.362637	+ .602194
5/2	11/2	5/2	3	11/2	1.000000	+ 1.000000
5/2	11/2	5/2	4	11/2	.384615	+ .620174
				13/2	.615385	+ .784465
5/2	11/2	5/2	5	11/2	.109890	+ .331497
				13/2	.461539	+ .679366
				15/2	.428571	+ .654654
5/2	11/2	7/2	3	11/2	.461538	- .679366
				13/2	.538462	+ .733799
5/2	11/2	7/2	4	11/2	.461538	- .679366
				13/2	.005128	- .071611
				15/2	.533333	+ .730297

α K_i	γ K_f	a I_i	b L	c I_f	$\left[\begin{matrix} abc \\ c\alpha\beta\gamma \end{matrix} \right]^2$	$\left[\begin{matrix} abc \\ c\alpha\beta\gamma \end{matrix} \right]$
5/2	11/2	9/2	3	11/2	.164835	+ .405999
				13/2	.492308	- .701646
				15/2	.342857	+ .585540
5/2	13/2	5/2	4	13/2	1.000000	+ 1.000000
5/2	13/2	5/2	5	13/2	.333333	+ .577350
				15/2	.666667	+ .816497
5/2	13/2	7/2	4	13/2	.533333	- .730297
				15/2	.466667	+ .683130
5/2	15/2	5/2	5	15/2	1.000000	+ 1.000000
7/2	1/2	7/2	3	1/2	.250000	+ .500000
				3/2	.333333	+ .577350
				5/2	.250000	+ .500000
				7/2	.121212	+ .348155
				9/2	.037879	+ .194625
				11/2	.006993	+ .083624
				13/2	.000583	+ .024140
				15/2	.000000	+ .000000
7/2	1/2	7/2	4	1/2	.027778	+ .166667
				3/2	.155556	+ .394405
				5/2	.286364	+ .535130
				7/2	.282828	+ .531816
				9/2	.169969	+ .412273
				11/2	.062937	+ .250873
				13/2	.013326	+ .115436
				15/2	.001243	+ .035259
7/2	1/2	9/2	3	3/2	.133333	+ .365148
				5/2	.290909	+ .539360
				7/2	.303030	+ .550482
				9/2	.186480	+ .431834
				11/2	.069930	+ .264443
				13/2	.014919	+ .122141
				15/2	.001399	+ .037398
7/2	3/2	7/2	2	3/2	.500000	+ .707107
				5/2	.333333	+ .577350
				7/2	.133333	+ .365148
				9/2	.030303	+ .174078
				11/2	.003030	+ .055048
7/2	3/2	7/2	3	3/2	.166667	+ .408248
				5/2	.333333	+ .577350
				7/2	.303030	+ .550482
				9/2	.151515	+ .389249
				11/2	.040793	+ .201972
				13/2	.004662	+ .068279

α	γ	a	b	c	$[C_{\alpha\beta\gamma}^{abc}]^2$	$[C_{\alpha\beta\gamma}^{abc}]$
K_i	K_f	I_i	L	I_f		
7/2	3/2	7/2	4	3/2	.033333	+ .182574
				5/2	.163636	+ .404520
				7/2	.303030	+ .550482
				9/2	.291375	+ .539792
				11/2	.157343	+ .396664
				13/2	.045688	+ .213747
				15/2	.005594	+ .074796
7/2	3/2	9/2	2	5/2	.333333	+ .577350
				7/2	.387879	+ .622799
				9/2	.212121	+ .460566
				11/2	.059674	+ .244282
				13/2	.006993	+ .083624
7/2	3/2	9/2	3	3/2	.266667	- .516398
				5/2	.006061	- .077850
				7/2	.121212	+ .348155
				9/2	.291375	+ .539792
				11/2	.225108	+ .474456
				13/2	.078788	- .280692
				15/2	.010789	+ .103871
7/2	3/2	11/2	2	7/2	.254545	+ .504525
				9/2	.391608	+ .625786
				11/2	.258941	+ .508863
				13/2	.083916	+ .289683
				15/2	.010989	+ .104828
7/2	5/2	7/2	1	5/2	.750000	+ .866025
				7/2	.222222	+ .471405
				9/2	.027778	+ .166667
7/2	5/2	7/2	2	5/2	.416667	+ .645497
				7/2	.400000	+ .632456
				9/2	.159091	+ .398862
				11/2	.024242	+ .155700
7/2	5/2	7/2	3	5/2	.166667	+ .408248
				7/2	.363636	+ .603023
				9/2	.318182	+ .564076
				11/2	.130536	+ .361298
				13/2	.020979	+ .144841
7/2	5/2	7/2	4	5/2	.045455	+ .213201
				7/2	.202020	+ .449467
				9/2	.339938	+ .583042
				11/2	.279720	+ .528886
				13/2	.114219	+ .337963
				15/2	.018648	+ .136558

α	γ	a	b	c	$[C_{\alpha\beta\gamma}^{abc}]^2$	$[C_{\alpha\beta\gamma}^{abc}]$
K_i	K_f	I_i	L	I_f		
7/2	5/2	9/2	1	7/2	.622222	+ .788811
				9/2	.323232	+ .568535
				11/2	.054545	+ .233550
7/2	5/2	9/2	2	5/2	.266667	- .516398
				7/2	.072727	- .269680
				9/2	.363636	+ .603023
				11/2	.246620	- .496609
				13/2	.050350	+ .224387
7/2	5/2	9/2	3	5/2	.303030	- .550482
				7/2	.036364	+ .190693
				9/2	.097902	- .312893
				11/2	.307959	+ .554940
				13/2	.209790	+ .458029
				15/2	.044955	+ .212026
7/2	5/2	11/2	1	9/2	.545455	+ .738549
				11/2	.377622	+ .614510
				13/2	.076923	+ .277350
7/2	5/2	11/2	2	7/2	.339394	- .582575
				9/2	.004662	+ .068279
				11/2	.291309	+ .539730
				13/2	.291375	+ .539792
				15/2	.073260	+ .270666
7/2	5/2	11/2	3	5/2	.136364	+ .369274
				7/2	.149184	- .386244
				9/2	.140027	- .374201
				11/2	.011988	+ .109490
				13/2	.245047	+ .495022
				15/2	.250730	+ .500729
				17/2	.066661	+ .258188
7/2	5/2	13/2	1	11/2	.494506	+ .703211
				13/2	.410256	+ .640513
				15/2	.095238	+ .308607
7/2	7/2	7/2	0	7/2	1.000000	+ 1.000000
7/2	7/2	7/2	1	7/2	.777778	+ .881917
				9/2	.222222	+ .471405
7/2	7/2	7/2	2	7/2	.466667	+ .683130
				9/2	.424242	+ .651339
				11/2	.109091	+ .330289
7/2	7/2	7/2	3	7/2	.212121	+ .460566
				9/2	.424242	+ .651339
				11/2	.293706	+ .541947
				13/2	.069930	+ .264443

α K_i	γ K_f	a I_i	b L	c I_f	$\left[\begin{matrix} abc \\ \alpha\beta\gamma \end{matrix} \right]^2$	$\left[\begin{matrix} abc \\ \alpha\beta\gamma \end{matrix} \right]$
7/2	7/2	7/2	4	7/2	.070707	+ .265908
				9/2	.271950	+ .521489
				11/2	.377622	+ .614510
				13/2	.228438	+ .477952
				15/2	.051282	+ .226455
7/2	7/2	9/2	0	9/2	1.000000	+ 1.000000
7/2	7/2	9/2	1	7/2	.177778	- .421637
				9/2	.494949	+ .703526
				11/2	.327273	+ .572078
7/2	7/2	9/2	2	7/2	.339394	- .582575
				9/2	.060606	+ .246183
				11/2	.411189	+ .641240
				13/2	.188811	+ .434524
7/2	7/2	9/2	3	7/2	.339394	- .582575
				9/2	.032634	- .180649
				11/2	.153447	+ .391723
				13/2	.342657	+ .585369
				15/2	.131868	+ .363137
7/2	7/2	11/2	0	11/2	1.000000	+ 1.000000
7/2	7/2	11/2	1	9/2	.272727	- .522233
				11/2	.342657	+ .585369
				13/2	.384615	+ .620174
7/2	7/2	11/2	2	7/2	.072727	+ .269680
				9/2	.342657	- .585369
				11/2	.000200	+ .014135
				13/2	.342657	+ .585369
				15/2	.241758	+ .491689
7/2	7/2	13/2	0	13/2	1.000000	+ 1.000000
7/2	7/2	13/2	1	11/2	.329670	- .574169
				13/2	.251282	+ .501280
				15/2	.419048	+ .647339
7/2	7/2	15/2	0	15/2	1.000000	+ 1.000000
7/2	9/2	7/2	2	9/2	.636364	+ .797724
				11/2	.363636	+ .603023
7/2	9/2	7/2	3	9/2	.318182	+ .564076
				11/2	.489511	+ .699650
				13/2	.192308	+ .438529

α	γ	a	b	c	$\left[\begin{smallmatrix} abc \\ c\alpha\beta\gamma \end{smallmatrix} \right]^2$	$\left[\begin{smallmatrix} abc \\ c\alpha\beta\gamma \end{smallmatrix} \right]$
K_i	K_f	I_i	L	I_f		
7/2	9/2	7/2	4	9/2	.122378	+ .349825
				11/2	.377622	+ .614510
				13/2	.376923	+ .613941
				15/2	.123077	+ .350823
7/2	9/2	7/2	5	9/2	.034965	+ .186990
				11/2	.195804	+ .442498
				13/2	.376923	+ .613941
				15/2	.304072	+ .551428
				17/2	.088235	+ .297044
7/2	9/2	9/2	1	9/2	.181818	- .426401
				11/2	.818182	+ .904534
7/2	9/2	9/2	2	9/2	.363636	- .603023
				11/2	.174825	+ .418121
				13/2	.461538	+ .679366
7/2	9/2	9/2	3	9/2	.391608	- .625786
				11/2	.003996	- .063214
				13/2	.307692	+ .554700
				15/2	.296703	+ .544705
7/2	9/2	11/2	1	9/2	.015152	+ .123091
				11/2	.279720	- .528886
				13/2	.705128	+ .839719
7/2	9/2	11/2	2	9/2	.094406	+ .307255
				11/2	.383616	- .619368
				13/2	.038462	- .196116
				15/2	.483516	+ .695353
7/2	9/2	13/2	1	11/2	.032967	+ .181568
				13/2	.338462	- .581775
				15/2	.628571	+ .792825
7/2	11/2	7/2	2	11/2	1.000000	+ 1.000000
7/2	11/2	7/2	3	11/2	.538462	+ .733799
				13/2	.461539	+ .679366
7/2	11/2	7/2	4	11/2	.230769	+ .480384
				13/2	.502564	+ .708918
				15/2	.266667	+ .516398
7/2	11/2	9/2	2	11/2	.307692	- .554700
				13/2	.692308	+ .832050

α K_i	γ K_f	a I_i	b L	c I_f	$[C_{\alpha\beta\gamma}^{abc}]^2$	$[C_{\alpha\beta\gamma}^{abc}]$
7/2	11/2	9/2	3	11/2	.439560	- .662994
				13/2	.046154	+ .214834
				15/2	.514286	+ .717137
7/2	11/2	11/2	2	11/2	.065934	+ .256776
				13/2	.410256	- .640513
				15/2	.523810	+ .723747
7/2	13/2	7/2	3	15/2	1.000000	+ 1.000000
7/2	13/2	7/2	4	13/2	.466667	+ .683130
				15/2	.533333	+ .730297
7/2	13/2	9/2	3	13/2	.400000	- .632456
				15/2	.600000	+ .774597
7/2	15/2	7/2	4	15/2	1.000000	+ 1.000000
9/2	3/2	9/2	3	3/2	.400000	+ .632456
				5/2	.327273	+ .572078
				7/2	.181818	+ .426401
				9/2	.069930	+ .264443
				11/2	.017982	+ .134097
				13/2	.002797	+ .052889
				15/2	.000200	+ .014135
9/2	5/2	9/2	2	5/2	.600000	+ .774597
				7/2	.290909	+ .539360
				9/2	.090909	+ .301511
				11/2	.016783	+ .129550
				13/2	.001399	+ .037398
9/2	5/2	9/2	3	5/2	.272727	+ .522233
				7/2	.363636	+ .603023
				9/2	.244755	+ .494727
				11/2	.095904	+ .309684
				13/2	.020979	+ .144841
				15/2	.001998	+ .044699
9/2	5/2	11/2	2	7/2	.424242	+ .651339
				9/2	.372960	+ .610705
				11/2	.161838	+ .402291
				13/2	.037296	+ .193122
				15/2	.003663	+ .060523
9/2	7/2	9/2	1	7/2	.800000	+ .894427
				9/2	.181818	+ .426401
				11/2	.018182	+ .134840
9/2	7/2	9/2	2	7/2	.509091	+ .713506
				9/2	.363636	+ .603023
				11/2	.113287	+ .336581
				13/2	.013986	+ .118262

α K_i	γ K_f	a I_i	b L	c I_f	$[C_{\alpha\beta\gamma}^{abc}]^2$	$[C_{\alpha\beta\gamma}^{abc}]$
9/2	7/2	9/2	3	7/2	.254545	+ .504525
				9/2	.391608	+ .625786
				11/2	.258941	+ .508863
				13/2	.083916	+ .289683
				15/2	.010989	+ .104828
9/2	7/2	11/2	1	9/2	.681818	+ .825723
				11/2	.279720	+ .528886
				13/2	.038462	+ .196116
9/2	7/2	11/2	2	7/2	.242424	- .492366
				9/2	.145688	+ .381691
				11/2	.383616	+ .619368
				13/2	.196037	+ .442761
				15/2	.032234	+ .179540
9/2	7/2	13/2	1	11/2	.604396	+ .777429
				13/2	.338462	+ .581774
				15/2	.057143	+ .239046
9/2	9/2	9/2	0	9/2	1.000000	+ 1.000000
9/2	9/2	9/2	1	9/2	.818182	+ .904534
				11/2	.181818	+ .426401
9/2	9/2	9/2	2	9/2	.545455	+ .738549
				11/2	.377622	+ .614510
				13/2	.076923	+ .277350
9/2	9/2	9/2	3	9/2	.293706	+ .541947
				11/2	.431568	+ .656939
				13/2	.230769	+ .480384
				15/2	.043956	+ .209657
9/2	9/2	11/2	0	11/2	1.000000	+ 1.000000
9/2	9/2	11/2	1	9/2	.151515	- .389249
				11/2	.566434	+ .752618
				13/2	.282051	+ .531085
9/2	9/2	11/2	2	9/2	.314685	- .560968
				11/2	.124875	+ .353377
				13/2	.415385	+ .644503
				15/2	.145055	+ .380861
9/2	9/2	13/2	0	13/2	1.000000	+ 1.000000
9/2	9/2	13/2	1	11/2	.241758	- .491689
				13/2	.415385	+ .644503
				15/2	.342857	+ .585540

α K_i	γ K_f	a I_i	b L	c I_f	$[C_{\alpha\beta\gamma}^{abc}]^2$	$[C_{\alpha\beta\gamma}^{abc}]$
9/2	9/2	15/2	0	15/2	1.000000	+ 1.000000
9/2	11/2	9/2	1	11/2	1.000000	+ 1.000000
9/2	11/2	9/2	2	11/2 13/2	.692308 .307692	+ .832050 + .554700
9/2	11/2	9/2	3	11/2 13/2 15/2	.395604 .461538 .142857	+ .628971 + .679387 + .377964
9/2	11/2	11/2	1	11/2 13/2	.153846 .846154	- .392232 + .919866
9/2	11/2	11/2	2	11/2 13/2 15/2	.329670 .251282 .419048	- .574169 + .501280 + .647339
9/2	11/2	13/2	1	11/2 13/2 15/2	.010989 .246154 .742857	+ .104828 - .496139 + .861892
9/2	13/2	9/2	2	13/2	1.000000	+ 1.000000
9/2	13/2	9/2	3	13/2 15/2	.600000 .400000	+ .774597 + .632456
9/2	13/2	11/2	2	13/2 15/2	.266667 .733333	- .516398 + .856349
9/2	15/2	9/2	3	15/2	1.000000	+ 1.000000
11/2	7/2	11/2	2	7/2 9/2 11/2 13/2 15/2	.666667 .256410 .065934 .010256 .000733	+ .816497 + .506370 + .256776 + .101274 + .027067
11/2	9/2	11/2	1	9/2 11/2 13/2	.833333 .153846 .012821	+ .912871 + .392232 + .113228
11/2	9/2	11/2	2	9/2 11/2 13/2 15/2	.576923 .329670 .084615 .008791	+ .759555 + .574169 + .290887 + .093761
11/2	9/2	13/2	1	11/2 13/2 15/2	.725275 .246154 .028571	+ .851631 + .496139 + .169031

α	γ	a	b	c	$ C_{\alpha\beta\gamma}^{abc} ^2$	$[C_{\alpha\beta\gamma}^{abc}]$
K_i	K_f	I_i	L	I_f		
11/2	11/2	11/2	0	11/2	1.000000	+ 1.000000
11/2	11/2	11/2	1	11/2	.846154	+ .919866
				13/2	.153846	+ .392232
11/2	11/2	11/2	2	11/2	.604396	+ .777429
				13/2	.338462	+ .581775
				15/2	.057143	+ .239046
11/2	11/2	13/2	0	13/2	1.000000	+ 1.000000
11/2	11/2	13/2	1	11/2	.131868	- .363137
				13/2	.620513	+ .787726
				15/2	.247619	+ .497613
11/2	11/2	15/2	0	15/2	1.000000	+ 1.000000
11/2	13/2	11/2	1	13/2	1.000000	+ 1.000000
11/2	13/2	11/2	2	13/2	.733333	+ .856349
				15/2	.266667	+ .516398
11/2	13/2	13/2	1	13/2	.133333	- .365148
				15/2	.866667	+ .930949
11/2	15/2	11/2	2	15/2	1.000000	+ 1.000000
13/2	11/2	13/2	1	11/2	.857143	+ .925820
				13/2	.133333	+ .365148
				15/2	.009524	+ .097590
13/2	13/2	13/2	1	13/2	.866667	+ .930949
				15/2	.133333	+ .365148
13/2	13/2	15/2	0	15/2	1.000000	+ 1.000000
15/2	15/2	15/2	0	15/2	1.000000	+ 1.000000

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