

Table 27.9.5 [By use of symmetry relations, coefficients may be put in standard form $j_1 \leq j_2 \leq j$ and $m \geq 0$]

m_2	m	j_1	j	$(j_1 j_2 m_1 m_2 j_1 j_2 j m)$	
$j_2 = \frac{1}{2}$					
$-\frac{1}{2}$	0	$\frac{1}{2}$	1	$\sqrt{\frac{1}{2}}$	0. 70711
$\frac{1}{2}$	0	$\frac{1}{2}$	1	$\sqrt{\frac{1}{2}}$	0. 70711
$\frac{1}{2}$	1	$\frac{1}{2}$	1		1. 00000
$j_2 = 1$					
-1	0	1	1	$\sqrt{\frac{1}{2}}$	0. 70711
0	0	1	1		0. 00000
1	0	1	1	$-\sqrt{\frac{1}{2}}$	-0. 70711
0	1	1	1	$\sqrt{\frac{1}{2}}$	0. 70711
1	1	1	1	$-\sqrt{\frac{1}{2}}$	-0. 70711
0	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{3}{2}$	$\sqrt{\frac{2}{3}}$	0. 81650
1	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{3}{2}$	$\sqrt{\frac{1}{3}}$	0. 57735
1	$\frac{3}{2}$	$\frac{1}{2}$	$\frac{3}{2}$		1. 00000 *
-1	0	1	2	$\sqrt{\frac{1}{6}}$	0. 40825
0	0	1	2	$\sqrt{\frac{2}{3}}$	0. 81650
1	0	1	2	$\sqrt{\frac{1}{6}}$	0. 40825
0	1	1	2	$\sqrt{\frac{1}{2}}$	0. 70711
1	1	1	2	$\sqrt{\frac{1}{2}}$	0. 70711
1	2	1	2		1. 00000
$j_2 = \frac{3}{2}$					
$-\frac{1}{2}$	$\frac{1}{2}$	1	$\frac{3}{2}$	$\sqrt{\frac{8}{15}}$	0. 73030
$\frac{1}{2}$	$\frac{1}{2}$	1	$\frac{3}{2}$	$-\sqrt{\frac{1}{15}}$	-0. 25820
$\frac{3}{2}$	$\frac{1}{2}$	1	$\frac{3}{2}$	$-\sqrt{\frac{2}{5}}$	-0. 63246
$\frac{1}{2}$	$\frac{3}{2}$	1	$\frac{3}{2}$	$\sqrt{\frac{2}{5}}$	0. 63246
$\frac{3}{2}$	$\frac{3}{2}$	1	$\frac{3}{2}$	$-\sqrt{\frac{3}{5}}$	-0. 77460
$-\frac{1}{2}$	0	$\frac{1}{2}$	2	$\sqrt{\frac{1}{2}}$	0. 70711
$\frac{1}{2}$	0	$\frac{1}{2}$	2	$\sqrt{\frac{1}{2}}$	0. 70711
$\frac{1}{2}$	1	$\frac{1}{2}$	2	$\frac{1}{2}\sqrt{3}$	0. 86603
$\frac{3}{2}$	1	$\frac{1}{2}$	2		0. 50000
$\frac{3}{2}$	2	$\frac{1}{2}$	2		1. 00000
$-\frac{3}{2}$	0	$\frac{3}{2}$	2		0. 50000
$-\frac{1}{2}$	0	$\frac{3}{2}$	2		0. 50000
$\frac{1}{2}$	0	$\frac{3}{2}$	2		-0. 50000
$\frac{3}{2}$	0	$\frac{3}{2}$	2		-0. 50000
$-\frac{1}{2}$	1	$\frac{3}{2}$	2	$\sqrt{\frac{1}{2}}$	0. 70711
$\frac{1}{2}$	1	$\frac{3}{2}$	2		0. 00000
$\frac{3}{2}$	1	$\frac{3}{2}$	2	$-\sqrt{\frac{1}{2}}$	-0. 70711
$\frac{1}{2}$	2	$\frac{3}{2}$	2	$\sqrt{\frac{1}{2}}$	0. 70711
$\frac{3}{2}$	2	$\frac{3}{2}$	2	$-\sqrt{\frac{1}{2}}$	-0. 70711
$-\frac{1}{2}$	$\frac{1}{2}$	1	$\frac{5}{2}$	$\sqrt{\frac{3}{10}}$	0. 54772
$\frac{1}{2}$	$\frac{1}{2}$	1	$\frac{5}{2}$	$\sqrt{\frac{3}{5}}$	0. 77460
$\frac{3}{2}$	$\frac{1}{2}$	1	$\frac{5}{2}$	$\sqrt{\frac{1}{10}}$	0. 31623
$\frac{1}{2}$	$\frac{3}{2}$	1	$\frac{5}{2}$	$\sqrt{\frac{3}{5}}$	0. 77460
$\frac{3}{2}$	$\frac{3}{2}$	1	$\frac{5}{2}$	$\sqrt{\frac{2}{5}}$	0. 63246
$\frac{3}{2}$	$\frac{3}{2}$	1	$\frac{5}{2}$		1. 00000

Compiled from A. Simon, Numerical tables of the Clebsch-Gordan coefficients, Oak Ridge National Laboratory Report 1718, Oak Ridge, Tenn. (1954) (with permission).

- [27.25] E. U. Condon and G. A. Shortley, Theory of atomic spectra (Cambridge Univ. Press, Cambridge, England, 1935).
- [27.26] M. E. Rose, Elementary theory of angular momentum (John Wiley & Sons, Inc., New York, N.Y., 1955).
- [27.27] A. Simon, Numerical tables of the Clebsch-Gordan coefficients, Oak Ridge National Laboratory Report 1718, Oak Ridge, Tenn. (1954). $C(j_1 j_2 j; m_1 m_2 m)$ for all angular moments $< \frac{1}{2}, 10D$.

*See page II.