

184th Eigenvector

$$N_e = 5 \quad s = \frac{1}{2} \quad m_s = -\frac{1}{2}$$

Irred. Representation : $\Gamma_{5,1}$

$$E_{184} = \frac{1}{2} (-J + 2t + 3U + 34W + \sqrt{A_4})$$

$$\begin{aligned} |\Psi_{184}\rangle &= |5, \frac{1}{2}, -\frac{1}{2}, \Gamma_{5,1}\rangle \\ &= C_{184,1} (|022d\rangle - |0d22\rangle - |20d2\rangle - |220d\rangle + |22d0\rangle + |2d02\rangle + |d022\rangle - |d220\rangle) \\ &+ C_{184,2} (|2ddu\rangle + |2udd\rangle + |d2ud\rangle + |dd2u\rangle + |ddu2\rangle + |du2d\rangle + |u2dd\rangle + |udd2\rangle) \\ &+ C_{184,3} (|2dud\rangle + |d2du\rangle + |dud2\rangle + |ud2d\rangle) \end{aligned}$$

$$C_{184-1} = \frac{1}{2} \sqrt{\frac{3}{2}} t$$

$$C_{184-2} = \frac{J - 2t + U - 2W - \sqrt{A_4}}{4\sqrt{6}}$$

$$C_{184-3} = -\frac{J - 2t + U - 2W - \sqrt{A_4}}{2\sqrt{6}}$$

$$N_{184} = 2\sqrt{2C_{184,1}^2 + 2C_{184,2}^2 + C_{184,3}^2}$$