

98th Eigenvector

$$N_e = 4 \quad s = 1 \quad m_s = -1$$

Irred. Representation : $\Gamma_{3,2}$

$$E_{98} = \frac{J}{2} + U + 10W$$

$$\begin{aligned} |\Psi_{98}\rangle &= |4, 1, -1, \Gamma_{3,2}\rangle \\ &= C_{98,1} (|02dd\rangle + |0dd2\rangle - |20dd\rangle - |2dd0\rangle + |d02d\rangle - |d20d\rangle + |dd02\rangle - |dd20\rangle) \\ &\quad + C_{98,2} (|0d2d\rangle - |2d0d\rangle + |d0d2\rangle - |d2d0\rangle) \end{aligned}$$

$$C_{98-1} = -\frac{1}{2\sqrt{6}}$$

$$C_{98-2} = -\frac{1}{\sqrt{6}}$$

$$N_{98} = 2\sqrt{2C_{98,1}^2 + C_{98,2}^2}$$