

2nd Eigenvector

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

Irred. Representation : Γ_1

$$E_2 = 3t$$

$$\begin{aligned} |\Psi_2\rangle &= |1, \frac{1}{2}, -\frac{1}{2}, \Gamma_1\rangle \\ &= \frac{1}{2}(|000d\rangle + |00d0\rangle + |0d00\rangle + |d000\rangle) \end{aligned}$$