212^{nd} Eigenvector

$\boldsymbol{N_e} \;=\; \mathbf{5} \qquad \boldsymbol{s = \frac{3}{2}} \qquad \boldsymbol{m_s = \frac{1}{2}}$

Irred. Representation : $\boldsymbol{\Gamma_{5,2}}$

$$E_{212} \;=\; \frac{J}{2} - t + U + 18W$$

$$\begin{aligned} |\Psi_{212}\rangle \;&=\; |5, \frac{3}{2}, \frac{1}{2}, \Gamma_{5,2}\rangle \\ &=\; \frac{1}{2\sqrt{3}} \left(|2duu\rangle + |2udu\rangle + |2uud\rangle - |d2uu\rangle - |du2u\rangle + |duu2\rangle \right. \\ &\qquad \left. - |u2du\rangle - |u2ud\rangle - |ud2u\rangle + |udu2\rangle - |uu2d\rangle + |uud2\rangle \right) \end{aligned}$$