169$^{\text{th}}$ **Eigenvector**

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

Irred. Representation : Γ_2

$$E_{169} \;=\; \frac{J}{2} + 3t + U + 18W$$

$$
\begin{aligned}
|\Psi_{169}\rangle \;&=\; |5, \tfrac{3}{2}, -\tfrac{1}{2}, \Gamma_2\rangle \\
&=\; \frac{1}{2\sqrt{3}} \left(|2ddu\rangle + |2dud\rangle + |2udd\rangle - |d2du\rangle - |d2ud\rangle + |dd2u\rangle \right. \\
&\qquad\qquad \left. - |ddu2\rangle + |du2d\rangle - |dud2\rangle - |u2dd\rangle + |ud2d\rangle - |udd2\rangle \right)
\end{aligned}
$$