226$^{\text{th}}$ **Eigenvector**

N_e $=$ 6 $\qquad s = 0 \qquad m_s = 0$

Irred. Representation : Γ_1

$$E_{226} \quad = \quad \frac{1}{2}\left(-J - 4t + 5U + 50W - \sqrt{A_8}\right)$$

$$
\begin{aligned}
|\Psi_{226}\rangle \quad &= \quad |6, 0, 0, \Gamma_1\rangle \\
&= \quad C_{226,1}\left(|0222\rangle + |2022\rangle + |2202\rangle + |2220\rangle\right) \\
&+ \quad C_{226,2}\left(|22du\rangle - |22ud\rangle + |2d2u\rangle + |2du2\rangle - |2u2d\rangle - |2ud2\rangle\right. \\
&\qquad \left. + |d22u\rangle + |d2u2\rangle + |du22\rangle - |u22d\rangle - |u2d2\rangle - |ud22\rangle\right)
\end{aligned}
$$

$$
\begin{aligned}
C_{226-1} \quad &= \quad \sqrt{3}t \\
C_{226-2} \quad &= \quad \frac{J + 4t + U - 2W + \sqrt{A_8}}{4\sqrt{3}} \\
N_{226} \quad &= \quad 2\sqrt{C_{226,1}^2 + 3C_{226,2}^2}
\end{aligned}
$$