150th Eigenvector

$$N_e = 4 \qquad s = 1 \qquad m_s = 1$$

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

$$E_{150} = \frac{J}{2} + U + 10W$$

$$
\begin{aligned}
|\Psi_{150}\rangle &= |4, 1, 1, \Gamma_{3,2}\rangle \\
&= C_{150,1} \left(|02uu\rangle + |0uu2\rangle - |20uu\rangle - |2uu0\rangle + |u02u\rangle - |u20u\rangle + |uu02\rangle - |uu20\rangle \right) \\
&+ \; C_{150,2} \left(|0u2u\rangle - |2u0u\rangle + |u0u2\rangle - |u2u0\rangle \right)
\end{aligned}
$$

$$
\begin{aligned}
C_{150-1} &= -\frac{1}{2\sqrt{6}} \\
C_{150-2} &= -\frac{1}{\sqrt{6}} \\
N_{150} &= 2\sqrt{2C_{150,1}^2 + C_{150,2}^2}
\end{aligned}
$$