

$$\begin{aligned}
\hat{H} &= \hbar[D(\hat{S}_z^2 - \frac{2}{3}I_3) + E(\hat{S}_x^2 - \hat{S}_y^2) + \gamma_{nv}\vec{B} \cdot \hat{\vec{S}}] \\
\Delta E_{[m_s=+1]} &= +g_e\mu_B \mid \vec{B} \cdot \hat{u} \mid \\
\Delta E_{[m_s=-1]} &= -g_e\mu_B \mid \vec{B} \cdot \hat{u} \mid \\
\Delta E_{[m_s=0]} &= 0 \\
\hat{H} &= \hbar[D(\hat{S}_z^2 - \frac{2}{3}I_3) + \gamma_{nv}B_z\hat{S}_z] \\
m_s &= +1 \\
m_s &= -1
\end{aligned}$$