$$\hat{H} = \hbar[D(\hat{S}_z^2 - \tfrac{2}{3}I_3) + E(\hat{S}_x^2 - \hat{S}_y^2) + \gamma_{nv}\vec{B} \cdot \hat{\vec{S}}]$$

$\Delta E_{[m_s=+1]} = +g_e\mu_B \mid \vec{B} \cdot \hat{u} \mid$

$\Delta E_{[m_s=-1]} = -g_e\mu_B \mid \vec{B} \cdot \hat{u} \mid$

$\Delta E_{[m_s=0]} = 0$

$\hat{H} = \hbar[D(\hat{S}_z^2 - \tfrac{2}{3}I_3) + \gamma_{nv}B_z\hat{S}_z]$

$m_s = +1$

$m_s = -1$