$|m_s = 0, \pm 1\rangle$: Eigenstates of $S_{\mathbf{z}}$

$$\hat{\mathcal{H}}_s = \underbrace{D\hat{S}_z^2} + \gamma_e \hat{\mathbf{S}} \cdot \mathbf{B}$$

$\mathbf{z}$ direction defined by the crystal lattice for $D > \gamma_e B$

$\mathcal{E}_{\pm 1}^i \approx D \pm \gamma_e \mathbf{B} \cdot \mathbf{e_i}$

$\rightarrow$ 4 possible pairs of $\mathcal{E}_{\pm 1}^i$ (4 classes of NV)