$$\begin{split} \hat{H} &= \hbar [D(\hat{S}_{z}^{2} - \frac{2}{3}I_{3}) + E(\hat{S}_{x}^{2} - \hat{S}_{y}^{2}) + \gamma_{nv}\vec{B} \cdot \hat{\vec{S}}] \\ \Delta E_{[m_{s}=+1]} &= + g_{e}\mu_{B} \mid \vec{B} \cdot \hat{u} \mid \\ \Delta E_{[m_{s}=-1]} &= - g_{e}\mu_{B} \mid \vec{B} \cdot \hat{u} \mid \\ \Delta E_{[m_{s}=0]} &= 0 \\ \hat{H} &= \hbar [D(\hat{S}_{z}^{2} - \frac{2}{3}I_{3}) + \gamma_{nv}B_{z}\hat{S}_{z}] \\ m_{s} &= +1 \\ m_{s} &= -1 \\ \Delta \nu_{i} &= \nu_{i[+1]} - \nu_{i[-1]} \\ B_{i} &= \Delta \nu_{i}/\gamma_{nv} \end{split}$$

$$\begin{cases}
\Delta \nu_i = \nu_{i[+1]} - \nu_{i[-1]} \\
B_i = \Delta \nu_i / \gamma_{nv}
\end{cases}$$
(1)

 $[\hat{u}_1, \hat{u}_2, \hat{u}_3, \hat{u}_4]; [-1, -1, 1, 1]$ 

$$\begin{cases}
\vec{B} \cdot \hat{u}_{list}[i]_1 = B_1 \\
\vec{B} \cdot \hat{u}_{list}[i]_2 = B_2 \\
\vec{B} \cdot \hat{u}_{list}[i]_3 = B_3
\end{cases}$$
(2)

$$\vec{B} \cdot \hat{u}_{list}[i]_4 = B_4$$