

$$\mathbf{H}_{ss} = \frac{2}{3} \boldsymbol{\lambda} (3\mathbf{S}_z^2 - \mathbf{S}^2) + \frac{1}{2} \boldsymbol{\lambda}_D \left\{ \frac{2(3\mathbf{S}_z^2 - \mathbf{S}^2)}{3}, (\mathbf{J} - \mathbf{S})^2 \right\}$$