

# Energy Levels and $g$ Factors of $\text{Cu}^{2+}$ -Doped Bis(L-asparaginato)zinc(II)

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The formulas for the energy levels and  $g$  factors for  $3d^9$  ions in an orthorhombic field with  $D_{2h}$  symmetry are obtained. They are used to investigate the energy levels and the  $g$ -anisotropy of  $\text{Cu}^{2+}$  ions in a bis(L-asparaginato)zinc(II) single crystal. The theoretically calculated values of the energy levels have agree well with the observed optical spectrum of the  $\text{Cu}^{2+}$  ions in the compound considered here, and also the calculated values of the  $g$ -anisotropy conform with the experimental values.

*Key words:* Bis(L-asparaginato)zinc(II) Crystal; Energy Levels;  $g$ -Anisotropy;  $D_{2h}$  Distortion.

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