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4) Construct a Jablonski (energy) diagram for $\text{Dy}(\text{PM})_3(\text{TP})_2$ and attach to this assignment. Include values for energy levels where possible (based on what is given in the article).

5) How many total states does the ground state split into based on spin-orbit coupling? How does this correlate with the experimental emission spectrum for $\text{Dy}(\text{PM})_3(\text{TP})_2$ given in the article? Explain.

6) What is Dexter's theory? Evaluate $\text{Dy}(\text{PM})_3(\text{TP})_2$ in the context of Dexter's theory, and discuss how it compares with Tb^{3+} and Eu^{3+} complexes. Why is this analysis useful, particularly for Dy^{3+} ?

7) The authors conducted tests to determine the photoluminescent and electroluminescent properties of $\text{Dy}(\text{PM})_3(\text{TP})_2$. Briefly define photoluminescence and electroluminescence, and discuss why the authors are interested in these properties (e.g. potential applications).