

- Derive expressions for the equilibrium constants for the complexation of Pb^{2+} (K_1) and of Ca^{2+} (K_2) by EDTA^{4-} .

Briefly explain why the chelating agent, EDTA, is administered as $[\text{Ca}(\text{EDTA})]^{2-}$ to treat lead poisoning and determine which of K_1 or K_2 must be greater for the therapy to be effective.