

Title: **Synthesis and characterization of coordination complexes with imine ligands**

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Recent studies related to coordination chemistry have put in the spotlight multifunctional complexes, which have magnetic properties tuned for the metals that are coordinated to ligands with chromophore groups that have useful optical properties. The combination of these properties makes this type of compounds of special interest for applications in fields like quantum computing, nanotechnology or materials science.

It is due to these applications that different ligands have been synthesized in order to study their properties when they are coordinated with metals with an axial anisotropy, since these metals might provide the complexes the condition of SMM (single-molecule magnet).

Keywords: coordination chemistry, imine formation, Schiff bases, azo isomerization, crystal structure, multifunctional molecules.