

Thin films of octacyanido-bridged molecular magnets
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In the last few years, there has been a significant interest in the study of molecular magnets in a form of thin films, which is motivated by the possibility of applying these materials in spintronic devices. Among the group of cyanido-bridged coordination networks, the most studied compounds are thin films of hexacyanidometallates, while the reports on the preparation of thin films based on octacyanidometallates are quite rare.

This work presents synthesis and study of magnetic and structural properties of thin films based on transition metals octacyanides, in particular $\text{Mn}^{\text{II}}-\text{L}-[\text{Nb}^{\text{IV}}(\text{CN})_8]^{4-}$ coordination networks (L-bridging ligand). The samples are obtained by electrostatic self-assembly using the dip-coating technique. Results of dynamic and static magnetic susceptibility, IR spectroscopy measurements and SEM analysis will be discussed.