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Electronic structure of the kagome lattice $Cu_4(OH)_6FBr$ KATERYNA FOYEVTSOVA, FRANCESC SALVAT-PUJOL, HARALD O. JESCHKE, ROSER VALENTI, Institut für Theoretische Physik, Goethe-Universität Frankfurt, Max-von-Laue-Strasse 1, 60438 Frankfurt/Main, Germany, JOHN SCHLUETER, Materials Science Division, Argonne National Laboratory, Argonne, Illinois 60439, USA — We investigate the electronic and magnetic properties of $Cu_4(OH)_6FBr$ in the framework of ab initio density functional theory calculations and model considerations. This system, similarly to the well known Herbertsmithite $ZnCu_3(OH)_6Cl_2$, consists of stacked layers of Cu^{2+} ions arranged in a Kagome pattern. We will discuss in terms of microscopic models the resemblances and differences between these two systems.

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