Showcasing research from Prof. Grochala’s Laboratory/CENT and Faculty of Chemistry, University of Warsaw, Warsaw, Poland, and collaborating institutions

Structural transition and unusually strong antiferromagnetic superexchange coupling in perovskite KAgF$_3$

The perovskite KAgF$_3$ exhibits an unprecedented strong one-dimensional superexchange via F atom, with a constant of superexchange coupling between Ag(II) centers close to −100 meV. This opens up the possibility to design novel magnetic and superconducting materials based on crystal-engineered silver(II) fluorides.