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【704】 Ferromagnetic structures and Kondo effects of CeAu_{1-x}Cu_xGe semimetals

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CeAuGe exhibits a ferromagnetic ordering below 10.2 K. Cu-doping in the Au site suppresses the unit cell volume, and the inversion symmetry is recovered from 50 % doped CeAuGe, while the ferromagnetic transition temperature remains similar. Neutron experiments reveal that magnetic structures of all Cu-doped CeAuGe compounds are collinear in-plane ferromagnetic. The resistivity of CeAuGe exhibits semimetallic behavior, while a resistive minimum is observed in CeCuGe due to the Kondo effect, meaning that the stronger Kondo hybridization in CeCuGe. In this presentation, we will discuss the ferromagnetic structures and electronic properties of small doped CeAuGe compounds, wherein the spatial inversion symmetry is still broken, and Kondo hybridization is enhanced.

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