



Colloquium

Electrical transport and spectroscopy studies of the delafossite layered metals

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Host: Zhanybek Alpichev

The delafossites, named after the French crystallographer Gabriel Delafosse, are triangular lattice layered materials with general formula ABO_2 . The family includes insulators, large gap semiconductors and a few astonishingly high conductivity metals. I will describe our group's work on the latter, focusing on three aspects of our recent research. Firstly, I will discuss the realization that the high electrical conductivity results from a degree of crystalline purity that is highly unusual in a multi-component oxide, and in the second part of the talk I will describe novel spectroscopic signatures that arise from studying angle-resolved photoemission (ARPES) from the layered Mott insulator – metal system $PdCrO_2$. I will close by describing the discovery of what we believe to be an entirely new quantum coherent phenomenon in the inter-layer transport of $PdCoO_2$ and $PtCoO_2$.

Monday, April 8, 2019 04:00pm - 05:00pm

Raiffeisen Lecture Hall, Central Building



This invitation is valid as a ticket for the ISTA Shuttle from and to Heiligenstadt Station.

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