

POZVÁNKA

na seminář oddělení 15 Fyzikálního ústavu AV ČR, v.v.i.

Seminář se koná

ve úterý 4. února 2014 v 15:00

v zasedací místnosti budovy A Fyzikálního ústavu, Cukrovarnická 10,
Praha 6.

Na programu je přednáška

Electronic structure of MnTe: Restrospective and news

kterou prosloví

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Abstrakt

Manganese telluride in its stable NiAs structure is an antiferromagnetic semiconductor. It is characterized by Néel temperature of 363 K and indirect band gap of approximately 0.35 eV and it is a crossroads material between other Mn chalcogenides (AF insulators) and Mn pnictides (FM metals). The main reason for extensive studies of MnTe around 1980 was, however, that its metastable forms with zinc-blende and rock-salt structure represent the limiting cases of the semimagnetic semiconductors derived from II-VI and IV-VI compounds, respectively. An important feature of the electronic structure of all crystal structures of MnTe is the hybridization of spin-polarized Mn d-states with Te p-states. With respect to strong spin-orbit coupling at Te, MnTe now becomes interesting from the spintronic point of view. We review the old results obtained in the IoP and present the first calculations of the electronic structure of MnTe including the spin-orbit interaction.