Weekly Seminar

Pressuring Fe-based superconductors: Finding and Phenomena

Time: 4:00pm, Nov. 13, 2013 (Wednesday)
时间： 2013年11月13日（周三）下午4:00
Venue: Room 607, Science Building 5
地点： 理科五号楼607会议室

Abstract

Superconducting state has been thought to be determined by the factors of lattice, charge, orbital and spin degrees of freedom in materials. These factors can be manipulated by control parameters including pressure, magnetic field and chemical composition. Among these parameters, pressure is a 'clean' way for tuning the crystal and electronic structures. In this talk, I will present the role of high pressure playing in studies of superconductivity of iron pnictide and alkaline iron selenide superconductors, which includes the pressure effects on superconducting transition in the pnictides with different kinds of intercalated layers (single element, oxide layer and complex layer) between the neighboring FeAs layers, iron-selenide superconductors with a unique 245 superlattice structure. Some findings and phenomena such as pressure-induced reemergence of superconductivity, quantum criticality, and valence change etc. are included. Furthermore, I will present our recent progress of high pressure studies on Mn-based compound which is considered to bridge the gap between cuperate and Fe-based supe È … ¶Q » ~
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