



Weekly Seminar

Unconventional superconductivity in $A_2Cr_3As_3$ ($A=K, Rb, Cs$)

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Time: 4:00 pm, October 21, 2015 (Wednesday)

时间: 2015年10月21日 (周三) 下午 4:00

Venue: Room W563, Physics Building, Peking University

地点: 北京大学物理楼 西563

Abstract

I will talk about the Cr-based superconductors $A_2Cr_3As_3$ ($A = K, Rb, Cs$) which were newly discovered in my group. The compounds are structurally characterized by one-dimensional $[(Cr_3As_3)^{2-}]_{\infty}$ double-walled subnanotubes that are separated by the A^+ columns. Bulk superconductivity emerges at 6.1 K, 4.8 K and 2.2 K for $A = K, Rb$ and Cs , respectively. There have been accumulating evidences/signatures that support unconventional superconductivity with spin-triplet pairing and odd parity in the new superconducting family.

About the Speaker

曹光早，浙江大学物理系教授，博士生导师。1995年于中国科学技术大学获得博士学位，1995至1997年在浙江大学物理系做博士后研究，1999至2001年在日本国立材料科学研究所从事研究工作。他主要从事超导体的合成、结构和物性研究。迄今发表SCI收录论文170余篇，他人引用3500余次。近年来，他在铁基超导体的化学掺杂与设计合成、新型铁基铁磁超导体的物性以及新超导体的探索等方面取得了有一定影响的成果。