

Uprzejmie zawiadamiamy, że w **ŚRODĘ**

21 maja 2014 r., o godz. 10:00

w sali 203 (bud. 1) odbędzie się seminarium, na który

Prof. Xin Yao

Department of Physics, Shanghai JiaoTong University, Shanghai, 200240, China

wyłosi referat na temat:

„Superheating property of REBa₂Cu₃O_{7-x} thin film and its applications in seeding growth of REBa₂Cu₃O_{7-x} superconductors”

Superheating phenomenon observed in REBa₂Cu₃O_{7-x} (RE=Nd, Sm, Y) thin films, e.g. the complete decomposition of the *c*-oriented YBCO film that occurs at temperature 50 K higher than its peritectic temperature (T_p) will be discussed. The origin and influential factors of superheating property were investigated, involving film oriented structures, substrate materials, and phase diagram nature.

For fundamental study and practical application, the seeding growth of REBa₂Cu₃O_{7-x} superconductors has been conducted in our lab by Top-Seeded Solution-Growth, Top-Seeded Melt-Growth, and Liquid Phase Epitaxy. Making full use of their unique superheating property, we employed REBa₂Cu₃O_{7-x} films as universal seed materials to induce the growth of 1) high-performance & high T_p REBa₂Cu₃O_{7-x} crystals, such as NdBCO and SmBCO, 2) large-sized crystals, 3) recycling failed bulks. The properties of these materials will be discussed.

Serdecznie zapraszamy

Roman Puźniak
Henryk Szymczak
Andrzej Wiśniewski