

Abstract of Presentation

Note: This paper should be typed in “Times New Roman” of 12pt.

Presentation Title(Should be no more than 20 words):

On the Scheme for International Collaborative Research

Abstract :

It is believed that the 20-year history of ISTEC (International Superconductivity Technology Center) of Japan is one of the most fruitful examples of the scheme for “international collaborative research”. Amongst numerous reasons for this, should be emphasized the formation of groups/divisions consisting of one senior director and “equal-partner” researchers from both domestic and foreign institutes of both the industrial and academic sectors, who usually work independently but at the same single (spatial) site. Thus every one of the multinational and multidisciplinary members of the group can daily have direct interactions with each other at his/her work. Many subgroups, sometimes interdivisional ones were formed spontaneously to open new horizons. Another but much smaller-sized example: Maarit Karppinen, a chemist, and myself, an applied physicist/materials scientist, collaborated in research of functional oxides forming a group at Tokyo Institute of Technology and yielded around 300 original papers over the period of 10 years. Thus essential for being productive in research collaboration is to do “real” collaborative work including “daily critical discussions” from different points of view in “real space”, *i.e.* not through any media.

Needless to say the type of the present workshop is useful as part of research collaboration. Nevertheless even very frequent occasions of such workshop would NOT make fruitful works and results follow unless they trigger “real” collaborative works through joint research projects which are funded such that “daily interactions” between equal-partner researchers may be assured.

Now being at the same Department of Chemistry of TKK (Helsinki University of Technology) thanks to a TEKES FiDiPro Project, Maarit Karppinen and myself have been continuing our collaboration in research on functional oxide materials. Moreover we are starting a new collaborative research project with Ichiro Terasaki of Waseda University in searching for new oxide materials for high-efficiency thermoelectrics (as a Finnish-Japanese bilateral collaborative research in functional materials supported by Academy of Finland).