

The Challenge(s) of High- T_c Superconductivity

Davor Pavuna

*Institute of Complex Matter Physics, Ecole Polytechnique Fédérale de Lausanne (EPFL), BSP, CH-1015,
Lausanne, Switzerland*

Superconductivity in high- T_c cuprates was discovered in Switzerland by G. Bednorz and K.A Mueller in 1986 and the global research ‘explosion’ begun soon after C.W. Paul Chu and M.K. Wu discovered YBCO-123 compound with T_c above the boiling point of liquid nitrogen. Still, almost 20 years later we do not have satisfactory answers to many fundamental questions on high- T_c superconductivity. Following a summary of our recent work on high- T_c films, I briefly discuss several conceptual and materials challenges.

E-Mail: davor.pavuna@epfl.ch

Website: <http://ipmc.epfl.ch/page31429.html>