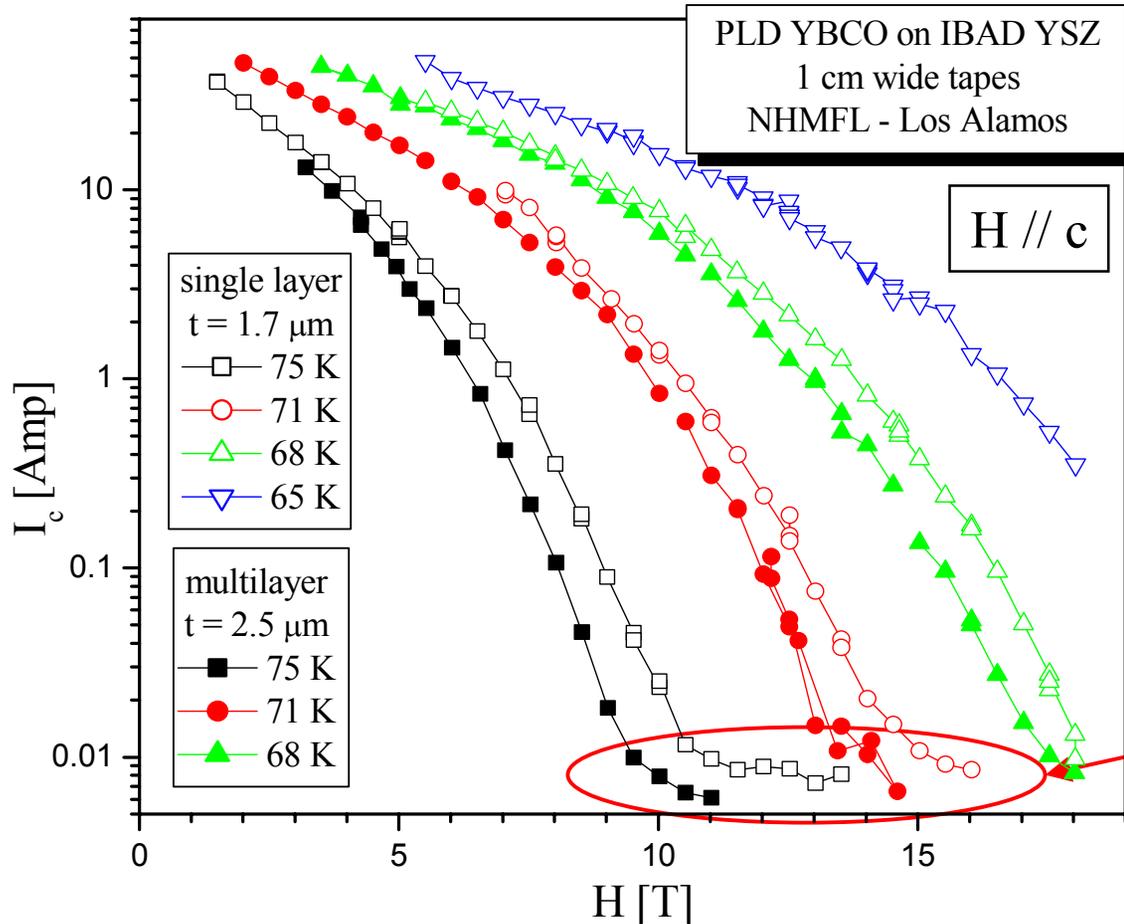


Critical currents of PLD/IBAD coated conductors at high magnetic fields

Leonardo Civale, Y. Coulter, J. Willis, A. Serquis, M. Jaime*, S. Foltyn, Q.X. Jia, P. Arendt

Superconductivity Technology Center - *National High Magnetic Field Laboratory
Los Alamos National Laboratory



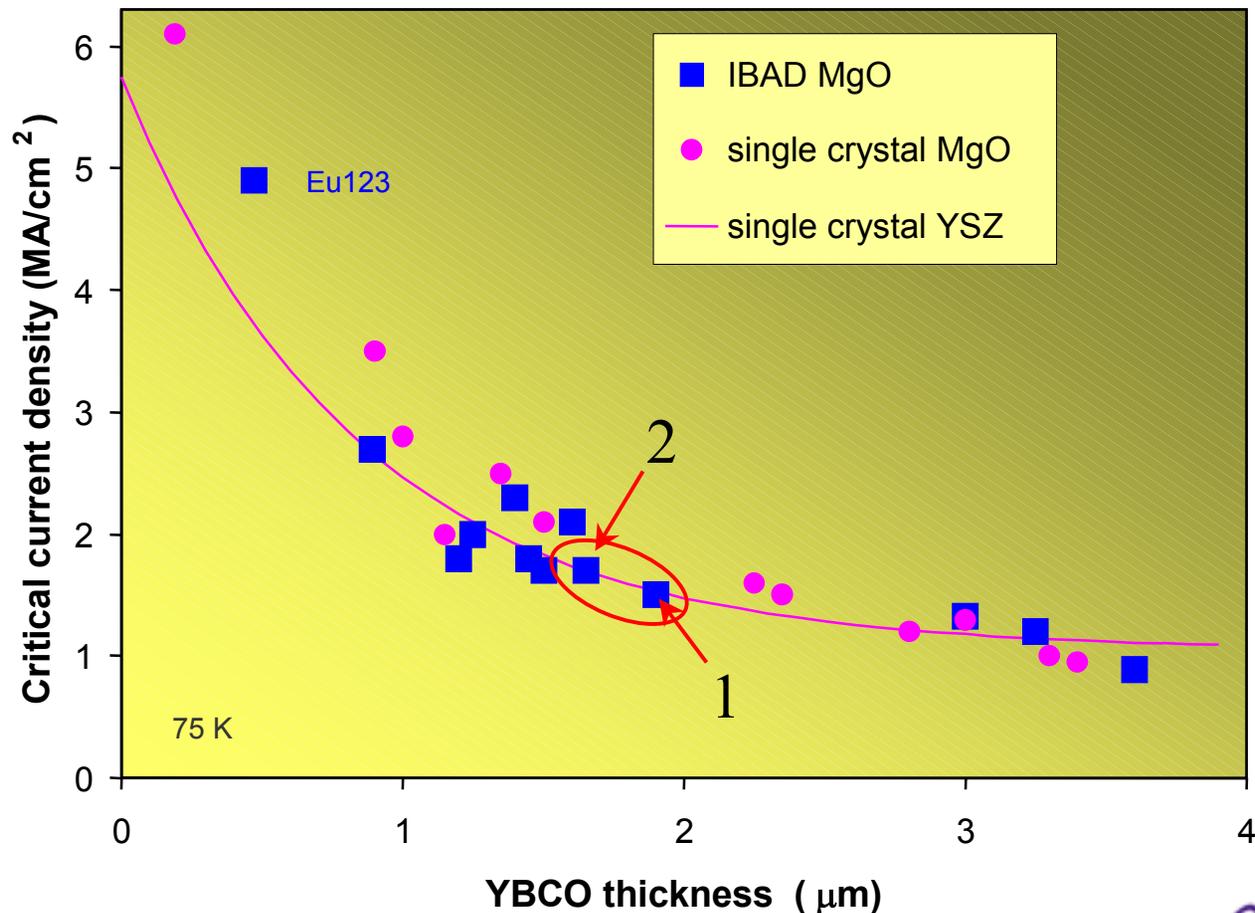
Large increase in high-field J_c and H_{irr} when cooled down from 75 K to 65 K

Similar dependence in single layer and multilayer

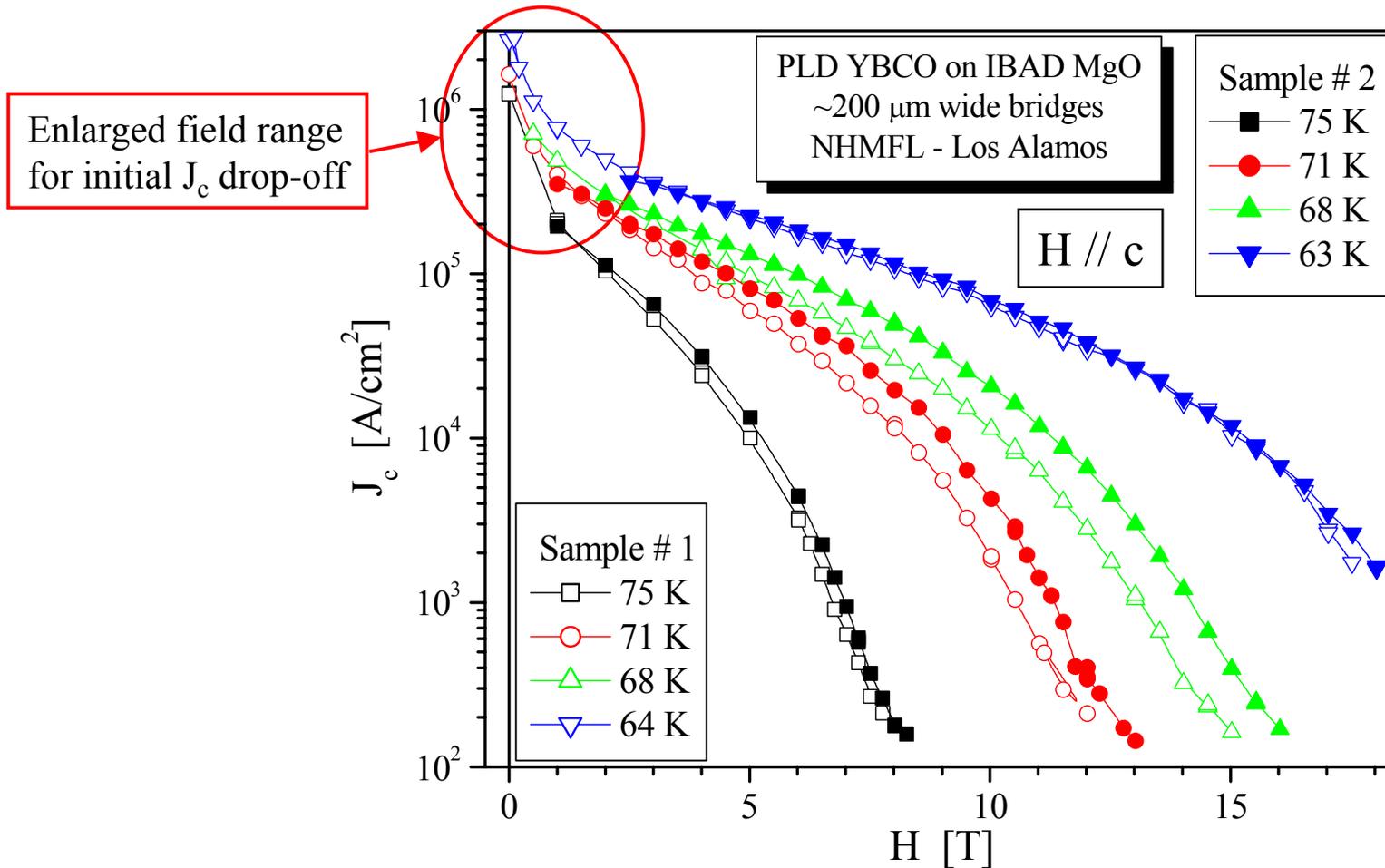
Irreversibility line

PLD YBCO on IBAD MgO has $J_c(75K, sf)$ as high as that of films on single-crystal substrates

Average in-plane texture for YBCO on IBAD MgO samples: 2.7° FWHM



Similar behavior for IBAD YSZ and MgO



Technologically useful J_c 's in fields above 8 T at ~ 63 K

