

Abstract Submitted  
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**Superconductivity in SnO: a Nonmagnetic Analogue to Fe-based Superconductors** DANIEL KHOMSKII, M.K. FORTHAUS, K. SENGUPTA, O. HEYER, Koeln University, Germany, N.E. CHRISTENSEN, A. SVANE, Aarhus University, Denmark, K. SYASSEN, Max-Plank-Institut fuer Festkoerperforschung, Stuttgart, Germany, T. LORENZ, M.M. ABD-ELMEGUID, Koeln University, Germany — We found that under pressure SnO with  $\alpha$ -PbO structure, the same structure as in many Fe-based superconductors, e.g.  $\beta$ -FeSe, undergoes a transition to a superconducting state for  $p \geq 6$  GPa with a maximum  $T_c$  of 1.4 K at  $p = 9.3$  GPa. The pressure dependence of  $T_c$  reveals a dome-like shape and superconductivity disappears for  $p > 16$  GPa. It is further shown from band structure calculations that SnO under pressure exhibits a Fermi surface topology similar to that reported for some Fe-based superconductors and that the nesting between the hole and electron pockets correlates with the change of  $T_c$  as a function of pressure. M.K. Forthaus et al., Phys.Rev.Lett. **105**, 15701 (2010)

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