

Abstract Submitted
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Films of Iron-Chalcogenide Superconductors and Applications

QIANG LI, WEIDONG SI, Brookhaven National Lab, BROOKHAVEN NATIONAL LAB TEAM — Iron chalcogenides are of great interest for both basic physics and applications. Although their superconducting transition temperatures are typically lower than those of iron pnictides, iron chalcogenides exhibit lower anisotropies with very high upper critical field slopes near the superconducting transition temperatures. In this presentation, I will discuss recent progress in the superconducting thin films and coated conductors of iron chalcogenides. The very high upper critical fields and critical current densities of these films suggest that they are prospective candidates for high field and energy applications. - Reference: Qiang Li, Weidong Si, and Ivo Dimitrov, “Films of Iron-Chalcogenide Superconductors,” Rep. Prog. Phys. **74** 124510 (2011)

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