Transport Properties of Thin Films of The Noncentrosymmetric Superconductors ZrRe$_6$ and Re$_3$W$^1$ MOJAMMEL ALAM KHAN, DANIEL LEPKOWSKI, AHMAD US SALEHEEN, JOSEPH PRESTIGIACOMO, AMAR KARKI, RONGYING JIN, TIJIANG LIU, SHANE STADLER, PHIL ADAMS, DAVID YOUNG, Department of Physics and Astronomy, Louisiana State University — Thin films (~50Å - 500Å) of ZrRe$_6$ and Re$_3$W were grown by pulse laser deposition from arc-melted targets. The dependence of the film’s critical temperatures, as well as the film’s upper critical field, was determined as a function of film thickness and compared to bulk samples. A 500Å film of ZrRe$_6$ had a transition temperature near 6.5 K. The thermal conductivity and thermo-electric power of bulk samples were also measured.

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