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Superconducting Properties of Atomically-Thin NbSe2 Sheets¹ JULIA SELL, STEVEN TRAN, Univ of Maryland-College Park, ALBERT DAVY-DOV, NIST, JAMES WILLIAMS, Univ of Maryland-College Park — The superconducting members of the transition metal dichalcogenides (TMDCs) family display unique superconducting properties arising from broken in-plane mirror symmetry and multiply occupied bands. Here, we report on device fabrication and lowtemperature transport measurements of atomically-thin sheets of superconducting NbSe2. Deviations from conventional I-V curves and anomalous RF responses are observed and discussed in the context of superconducting behavior predicted for this material.

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