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Transport Measurements of Superconducting Zinc Nanowires at Low-Temperatures BRIAN HULT, ENC and HU, JOHN FREE, ENC and HU, WILLIAM NEILS, HU, MICHAEL TINKHAM, HU, EASTERN NAZARENE COLLEGE COLLABORATION[1], HARVARD UNIVERSITY COLLABORATION[2] — New transport data on superconducting Zinc nanowires at temperatures between 1.2K and 300mK will be presented. The superconducting Zinc nanowires are fabricated using E-beam lithography on a Si/SiO2 substrate on which Zinc is deposited via thermal evaporation. The resistance and I-V are then measured as a function of temperature. The wires range in width from 40nm to 100nm and have varying thicknesses. These data are compared to thermally activated phase slip models. This research is collaboration of Eastern Nazarene College with Harvard University. Funded by: NSF DMR-02444441

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