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**Superconductivity in one-dimensional nanowires isolated from environment by on-chip resistors** ANDREY ROGACHEV, ANTHONY T. BOLLINGER, ALEXEY BEZRYADIN, University of Illinois at Urbana-Champaign, UIUC TEAM — To test the effects of dissipative environment on superconductivity in quasi-one-dimensional nanowires, we fabricated a series of samples in which the nanowire, connected to small-size thin-film superconducting electrodes, is isolated from the rest of the measurement circuit by means of on-chip Pt/C resistors. The resistors (about 50-100 k$\Omega$) were made by focused-ion-beam-induced deposition of Pt. The nanowires were fabricated by deposition of MoGe on suspended carbon nanotube. Regardless the fact that nanowires are isolated from the environment, the temperature dependence of a wire resistance is similar to the one predicted by a theory of thermally activated phase slips.

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