

Abstract Submitted
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STM/STS at milliKelvin temperatures MARK GUBRUD, Laboratory for Physical Sciences, Physics Dept, University of Maryland, College Park, ANITA ROYCHOWDHURY, MICHAEL DREYER, Laboratory for Physical Sciences, Physics Dept., University of Maryland, College Park — Scanning tunneling microscopy and spectroscopy systems operating at milliKelvin temperatures in dilution refrigerators have been built in a modest number of labs around the world. Certain issues and problems have been consistently encountered despite the variety of approaches that have been taken. Results that have been obtained indicate the most promising approaches for future improvement. I will review this accumulated experience from the literature and relate it to the design of a new system, located at the University of Maryland, College Park, that will be used initially to test the feasibility of a novel scheme for Josephson phase microscopy.

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