

Abstract Submitted  
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**Synthesis of metal-molecule-metal structures for single-molecule transport and spectroscopy measurements** ALEX NEUHAUSEN, Dept. of Electrical Engineering, Stanford University, DAVID GOLDHABER-GORDON, Dept. of Physics, Stanford University, CHRIS CHIDSEY, Dept. of Chemistry, Stanford University — Robust, repeatable metal-molecule contacts are an elusive yet important hurdle in the development of molecular electronic devices. This project explores the chemical synthesis of metal-molecule-metal structures for single-molecule spectroscopy and transport measurements. Conjugated thiol-azide molecules are self-assembled on gold nanoparticles, which are then linked with dialkyne bridge molecules using Sharpless “click” reactions.

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