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Response to "Comment on 'Fabrication of a Molecular Self-Assembled Monolayer Diode Using Nanoimprint Lithography'"

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Wang, Lee, and Reed raise valid concerns as to the measured and reported conductivity of octadecanethiol (C-18) self-assembled monolayer (SAM) in our publication "Fabrication of a Molecular Self-Assembled Monolayer Diode Using Nanoimprint Lithography"[1] in their comment.

As reported in our paper, the conductivity of the C-18 SAM was measured over several samples with repeatable results, and data collected were in reasonable agreement with earlier published reports.[2] However, we also reported the lifetime of the devices was short thus limiting our ability to perform low-temperature measurements, the yields of smaller chain alkanethiol devices were too low to allow a comparative study, and the migration of gold atoms in the flexible C-18 SAM could play a role in the transport. The intent of our work was to (a) present a low-cost fully parallel fabrication process for making nanosized contacts to measure SAMs, and (b) facilitate the investigation of integrated molecular electronic devices.

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