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**Studies of Au/SAMs/PEDOT-PSS/Au tunnel junctions** NAN SUN, MARYA LIEBERMAN, STEVEN RUGGIERO, University of Notre Dame — We report on tunneling through thin organic films. Junctions of the form: Au/SAMs/Polymer/Au were prepared on electronic-grade Si substrates with Self-Assembled Monolayers (SAMs) including octanedithiol (HS-$C_8H_{16}$-SH) and mercaptohexadecanoic (HS-$C_{15}H_{30}$-COOH). A transitional conducting polymer film PEDOT-PSS was spun on to the SAMs layer, and junctions were completed with a gold film. X-ray photoelectron spectroscopy (XPS) was employed to monitor the quality of the SAMs films. The electron tunneling properties including dI/dV and $d^2I/dV^2$ versus bias for the SAMs are discussed.

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