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**Contact Potential Difference Measurements of Self Assembled Monolayers** BRIDGER ANDERSON, Society of Physics Students, NIST — In this work, the metal work function and its evolution with systematic chemical changes were studied using an Atomic Force Microscope. A technique, Scanning Kelvin Probe Microscopy, was used to measure the metal work function of various surface dipoles. This metal-molecule interface is also known as a Helmholtz double layer. We expect that this work will lead to a fundamental way of understanding and rationalizing the electrical characteristics of select metal-molecule-metal systems.

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