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Instrumentation Assembly, Characterization and Deployment of the Multichroic Detector Array for ACTPol SHUAY-PWU HO, Princeton University, ACTPOL COLLABORATION — The Atacama Cosmology Telescope Polarimeter (ACTPol) is a polarization sensitive receiver for the 6 m Atacama Cosmology Telescope. ACTPol will make measurements of the small angular scale polarization anisotropies in the Cosmic Microwave Background (CMB). The deployment of the detector arrays for the receiver was fully completed in January, 2015. The entire focal plane is composed of three detector arrays, containing over 3000 transition edge sensors (TES) in total. The first two detector arrays, observing at 146 GHz were deployed in 2013 and 2014 respectively. The third and final array is designed to be multichroic, sensitive to both 90 GHz and 150 GHz, enabling increased sensitivity for observations of the CMB. In this talk I will focus on the laboratory assembly and characterization of the final detector array as well as its current status of deployment.

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