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Plasma Potential Measurements Using an Emissive Probe in Diverse Plasmas. AMANDA READY, DOUGLASS ENDRIZZI, KEN FLANAGAN, CARY FOREST¹, University of Wisconsin - Madison, WIPPL GROUP TEAM — Making accurate plasma potential (V_p) measurements is critical to the Wisconsin Plasma Physics Laboratory (WiPPL), which conducts a variety of plasma experiments. We present a simple yet robust emissive probe capable of making V_p measurements in a diverse number of environments. This probe was tested with varying levels of Joule heating current, verifying that the probe makes accurate V_p measurements. We will present the design of the probe, data verifying its emissive nature, measurements showing the probe collecting current from the plasma to bring it to the emissive point, and a cusp region scan of WiPPL's Plasma Couette Experiment (PCX)..

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