Abstract Submitted for the SES20 Meeting of The American Physical Society

A Plasma Physics Apparatus for Advanced Undergraduate Physics Laboratory Instruction JAMES MORRIS, GARRETT TERRY, SETH-FIELD SMITH, Francis Marion University, FRANCIS MARION UNIVERSITY COLLABORATION — A low cost plasma physics apparatus was constructed for use in an advanced undergraduate physics laboratory. This apparatus was used to investigate the effects of gas pressure and electrode separation on the DC voltage required to initiate plasma formation. The experimental results were compared to the predictions of Paschen's Law. The construction details for the apparatus and the experimental tests of its operation will be presented.

James Morris Francis Marion University

Date submitted: 18 Oct 2020 Electronic form version 1.4