

Abstract Submitted
for the DPP15 Meeting of
The American Physical Society

A Mini-helicon Thruster in Argon and Xenon FRANCIS F. CHEN,
UCLA — Our small helicon discharge, 5 cm in diam and 5 cm long, using a commercial Nd permanent magnet, has been used previously¹ to eject an argon ion beam suitable for spacecraft propulsion. The specific impulse can be increased by biasing the conducting top plate of the discharge. Thrusters normally use xenon for propulsion because of its high mass and low ionization potential. We have now tested the mini-helicon thruster in xenon. The entire device is small enough to be brought to a poster session and shown there.

¹F.F. Chen, Phys. Plasmas **21**, 093511 (2014).

Francis F. Chen
UCLA

Date submitted: 24 Jul 2015

Electronic form version 1.4