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Characterization of the Micro Pulsed Inductive Thruster JAMES PRAGER, University of Washington, TIMOTHY ZIEMBA, Eagle Harbor Technologies, Inc., DAVID PETERS, ROBERT WINGLEE, University of Washington — The micro pulsed inductive thruster (uPIT) is a low mass (<500 g) pulsed plasma thruster with an inductive drive section that was invented and developed at Eagle Harbor Technologies, Inc. and investigated at the University of Washington. This thruster is designed for primary propulsion of nanosatellites and satellite missions that require very fine impulse bit for precision pointing. Here we present data demonstrating increased performance with the use of the inductive drive section. Also presented is data to characterize the thruster including spectrometer data, exhaust speed data, preliminary thrust stand data, and long duration operation data. We demonstrate that uPIT is a viable option for a micropropulsion concept that fills an open niche in thruster concepts.

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