Abstract Submitted
for the DPP16 Meeting of
The American Physical Society

High Power LaB_6 Plasma Source Performance for the Lockheed Martin Compact Fusion Reactor Experiment JONATHON HEINRICH, Lockheed Martin — Lockheed Martin's Compact Fusion Reactor (CFR) concept is a linear encapsulated ring cusp. Due to the complex field geometry, plasma injection into the device requires careful consideration. A high power thermionic plasma source (>0.25MW; >10A/cm^2) has been developed with consideration to phase space for optimal coupling. We present the performance of the plasma source, comparison with alternative plasma sources, and plasma coupling with the CFR field configuration.

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Date submitted: 14 Jul 2016 Electronic form version 1.4