



1. Title:	LPP Source System Development Results
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3. Abstract body:

Cymer's Laser Produced Plasma (LPP) source development providing technology to support High Volume Manufacturing (HVM) EUV lithography applications is presented. The poster includes the latest experimental results obtained on prototype systems with a focus on the topics most critical for an HVM source.

We report on our development results toward a low-cost drive laser solution with high power and high beam quality that meets performance requirements for a HVM LPP EUV source. Optical performance and features of the drive laser system will be described, as well as a path to achieve output power scaling to meet high volume manufacturing requirements and beyond.

A collector subsystem has been designed, built, and tested, and the results are reported. The subsystem consists of a 320mm ellipsoidal collector coated with a graded multilayer, mounting mechanics, thermal management capability, and a collector protection system. Optical performance measured at IF is presented.

Additionally we include testing results for other critical subsystems such as a droplet generator that accurately delivers a controlled amount of fuel, a beam transport system that efficiently focuses the laser beam on the target, and a control system that monitors and adjusts the laser and droplet target to deliver a stable EUV output.