



1. Title:	Towards an Affordable Cost of Ownership for EUVL
2. Full names of all authors:	Melissa Shell, Robert Bristol, Jeanette Roberts, Manish Chandhok, Michael Leeson, Wang Yueh, Alan Stivers

3. Abstract body:

EUVL has transitioned from the research phase to full development phase - with integrated testing of the various technology components: exposure tools, masks, and photoresists. The focus of the work has thus graduated from determining whether show-stoppers existed (NOT), to a more careful study of whether the technology can be delivered with a suitable Cost-of-Ownership (COO) for manufacturing. This paper examines the major issues driving EUVL COO, and how they vary for the different phases of use - early insertion, high volume manufacturing, and extension to later generations. We discuss the impact of shot-noise and LWR on EUVL throughput. MET results will be presented for resist development projects including intelligently-designed resists and novel glassy resists. For yield impact our chief concern is in mask defect control. Results from our Mask shop on particle defect levels in mask manufacturing, shipping, and handling will be reviewed. Finally, we'll discuss the extendability of EUVL for further generations, examining the resolution and throughput capability for various NA lenses.