



1. Title:	Canon's Development Status of EUVL Technologies
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7. Abstract body:

Canon's development status of EUVL will be presented. We have been constructing a small field exposure tool (SFET) in collaboration with EUVA. This machine is positioned as a cornerstone of the manufacturing technologies for the EUVL beta tool as well as a tool for resist and mask development. SFET has a field size of $0.6 \times 0.2 \text{ mm}^2$, a LPP source and two-mirror projection optics of Schwartzchild type. It also has an optical focus scope with the z-direction interferometer for precise focus settings. We will report the optical performance of SFET referring the relation between the mirror surface accuracy and exposure characteristic. And we will discuss on the required performance of the optical accuracy, optics lifetime with the inclusive of contamination issues and mask handling on the viewpoint of beta tool manufacturing. Furthermore, the desired performance of HVM tools for 45 nm to 32 nm generations will be discussed.