EBL2: high power EUV exposure facility

Herman Bekman, Edwin te Sligte, Norbert Koster, Freek Molkenboer, Peter van der Walle, Pim Muilwijk, Wouter Mulckhuyse, Bastiaan Oostdijck, Christiaan Hollemans, Bjorn Nijland, Peter Kerkhof, Michel van Putten, Andre Hoogstrate, Alex Deutz

TNO, Delft, The Netherlands

TNO is integrating EBL2, an open access facility to investigate the effects of EUV radiation on surfaces to enable future EUV HVM production.
A Sn-fueled Ushio LDP source is used to generate EUV. A two-stage grazing incidence collector system projects the EUV onto the mask location.
EBL2 will meet the intensity roadmap for all foreseen EUV litho tools and EUV sources, exposing at ~10 W total power. EBL2 will accept small test samples as well as EUV masks for both EUV exposure and XPS analysis. Masks with pellicles are also accepted.