

## CUSTOMIZED PHOTOMASKS AND CALIBRATION TARGETS BY E-BEAM LITHOGRAPHY.

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Originally, in the 70's and 80's, the primary aim of the electron beam lithography (EBL) was the patterning of photo-mask sets dedicated to be transferred by photo-lithography means to wafer surfaces during successive technology steps of integrated circuits production. Nowadays, this application area remains the main task of high end electron beam pattern generators, commonly working with shaped electron beam due to throughput requirements. On the other hand, quite a lot of needs for customized photo-masks are raising from the academic environment, having usually special *desiderata* such as substrate type, its size or shape, aplanar surface or combination of amplitude-type and phase-type masks performed on one substrate. Case studies covering the mentioned type of masks, EBL technology particularities and achieved results are presented.



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