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| Objective |
| Batch name: Process template |
| This process is a guideline on how to spin, develop and rinse mr EBL 6000 on substrates as Si, SiO2 and SOI.Mr EBL 6000 is a chemically amplified negative e-beam resist. The resist has been approved to carry into DTU Danchip cleanroom, but this flow has not been tested or optimized. |

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| Step Heading | Equipment | **ZEP spinning on Si, SiO2, SOI** | Comments |
| 1. Pretreatment
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| * 1. Surface treatment
 | BHF dip *or*HMDS | BHF dip for Si substrates (30 sec, H2O 5 min) HMDS treatment for SiO2 and III-V substrates | Generally, pre-treatment is not recommended.  |
| 1. Spin coat of CSAR
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| * 1. Coat wafers
 | Manual Spinner 1, or Spin coater LabSpin | **Resist:** mr EBL 6000**Spin:** 60 sec @ 3000 rpm (for appr. 90 nm)**Softbake:** 3 min @ 110 oC | Use syringe with filter or disposable pipette (cleaned by N2 gun). |
| 1. E-beam exposure
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 | E-beam writer | Dose: 200 - 300 µC/cm2; a dose-test is required. See e-beam logbook for inspiration.(220-270 µC/cm2 required to obtain maximum resolution) | Dose depends strongly on substrate material, thickness of resist, critical dimension and load of pattern. |
| 1. Post exposure Bake
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| * 1. Post Exposure Bake
 | Hotplate | **bake:** 5 min @ 110 oC | Bake immediately after e-beam exposure |
| 1. De-scum
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| * 1. De-scum
 | BHF dip | BHF dip for Si substrates (30 sec, H2O 5 min).(Never use plasma ash as de-scum, as such a process could generate particles on substrate). | De-scum generally not recommended. If residues appear, optimize dose, development and rinse process. |
| 1. Lift-off and Strip
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| * 1. Lift-off
 | Petribowl, E-beamFumehood  | Dr Rem |  |