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| Objective |
| Batch name: Process template |
| This process flow is a guideline on how to spin coat, expose, and develop AZ 5214E on 4” substrates such as Si, SiO2 and Borofloat, using Spin Coater: Gamma e-beam & UV, KS Aligner and Developer: TMAH UV-lithography. |

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| Step Heading | Equipment |  | Comments |
| 1. Pretreatment | | |  |
| * 1. Surface treatment | BHF dip  *or*  250C oven | BHF dip for Si substrates (30 sec, H2O 5 min)  Overnight bake | HMDS pretreatment can course bobbles in resist during exposure. |
| 1. Spin coat of AZ4562 | | |  |
| * 1. Clean resist nozzle | Spin Coater: Gamma e-beam & UV | Clean spinner nozzle before every batch |  |
| * 1. Coat wafers | Spin Coater: Gamma e-beam & UV | **Resist:** AZ4562 (CO2 line 4)  **Spin:** 30 s @ 2000 rpm (for 10µm)  **Softbake:** 300 s @ 100 °C, 1mm proximity  **Sequence:**  (4410) DCH 100mm AZ456 10um | Resist thickness can be measured with FilmTek |
| 1. Exposure | | |  |
| * 1. Exposure | KS Aligner  or  Aligner: MA6 – 2 | **Mask:** your mask  **Exposure mode:** Soft contact  **Exposure dose:**  450 mJ/cm2 for KS  520 mJ/cm2 for MA6 – 2  **Exposure time:**  64 s @ 7 mW/cm2 for KS  40 s @ 13 mW/cm2 for MA6 – 2 | Activate multiple exposure, e.g. 4 steps with 10 s pause between exposure steps.  Information on exposure dose for other thickness, aligner, or developer: http://labadviser.danchip.dtu.dk/index.php/Specific\_Process\_Knowledge/Lithography/UVExposure\_Dose |
| 1. Development | | |  |
| * 1. Develop | Developer: TMAH UV-lithography | **Development in TMAH (AZ 726 MIF):**  Multiple puddle, 4 x 60 s  **Sequence:**  DCH 100mm MP 4x60s |  |
| 1. Inspection | | |  |
| * 1. Inspection | Optical microscope | Inspect pattern / alignment mark / process monitor |  |