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| Objective |
| Batch name: Process template |
| This process flows is a guideline on how to spin coat, expose, and develop AZ MiR 701 on 4” substrates such as Si, SiO2 and Borofloat, using automatic spin coater, mask aligner and automatic developer. |

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| Step Heading | | Equipment |  | Comments |
| 1. Pretreatment and spin coat of AZ MiR 701 | | | |  |
| * 1. Pretreatment | | BHF dip  *or*  Oven: HMDS – 2 | BHF dip for Si substrates (30 s, H2O 5 min)  HMDS treatment for Si, SiO2, and Borofloat  **Recipe:** 01 | For Si, choose BHF or HMDS.  HMDS priming can also be performed on Gamma spin coaters. |
| 1. Spin coat of AZ MiR 701 | | | |  |
| * 1. Coat wafers | Spin Coater: Gamma UV  or  Spin Coater: Gamma e-beam & UV | | **Resist:** AZ 5214E (line 1 or CO2 line 2)  **Spin:** 30 s @ 4600 rpm (for 1.5µm)  **Softbake:** 60 s @ 90 °C  **Sequence:**  (1410) DCH 100mm MiR 701 1.5um or  (4210) DCH 100mm MiR 701 1.5um | Use (1411) or (4211) for in-line HMDS priming.  Resist thickness can be measured on FilmTek |
| 1. UV Exposure | | | |  |
| * 1. Exposure | | KS Aligner  or  Aligner: MA6 – 2 | **Mask:** your mask  **Exposure mode:** Soft contact  **Exposure dose:**  170 mJ/cm2  **Exposure time:**  21.3 s @ 8 mW/cm2 for KS  15.5 s @ 11 mW/cm2 for MA6 – 2 | Information on exposure dose for other thickness or aligner: http://labadviser.danchip.dtu.dk/index.php/Specific\_Process\_Knowledge/Lithography/UVExposure\_Dose |
| 1. Post Exposure Bake | | | |  |
| * 1. Post Exposure Bake | | Developer: TMAH UV-lithography | **Post Exposure Bake:** 60 s @ 110 °C  **Sequence:**  (2001) DCH PEB 110C 60s or  (3001) DCH 100mm PEB60s@110C+SP60s | PEB and development is typically done simultaneously |
| 1. Development | | | |  |
| * 1. Development | | Developer: TMAH UV-lithography | **Development in TMAH (AZ 726 MIF):**  single puddle, 60 s  **Sequences:**  (1002) DCH 100mm SP 60s or  (3001) DCH 100mm PEB60s@110C+SP60s | PEB and development is typically done simultaneously |
| 1. Inspection | | | |  |
| * 1. Inspection | | Optical microscope | Inspect pattern / alignment mark / process monitor |  |