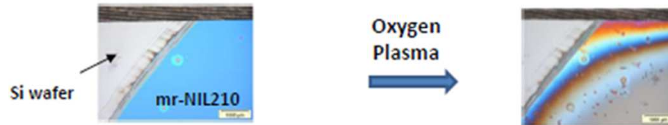
a) Layer thickness of ZnO 16.2 nm => complete removal of mr-NIL210 resist

b) Layer thickness of ZnO 26.7 nm => incomplete removal of mr-NIL210 resist



c) Layer thickness of ZnO 50.0 nm => nearly no removal of mr-NIL210 resist

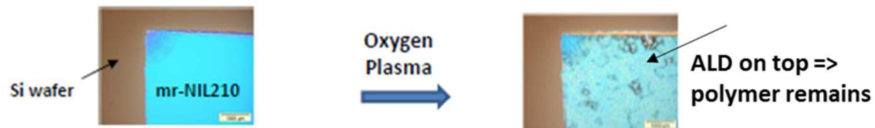


Figure 1. Example of test setup and ALD area selectivity of ZnO. (a) There is no (compact) ALD coating layer on top of NIL resist thus oxygen plasma removes the polymer and (b,c) The organic NIL resist (mr-NIL210) is not removed completely due to ALD coating on top of it.

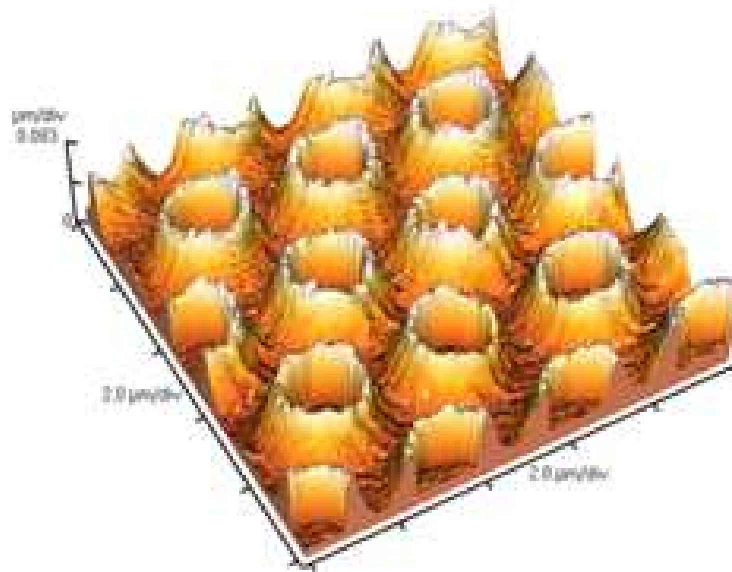


Figure 2. AFM topographical image of ZnO ring-patterns made by a combination of imprinted cavities applying the organic photo-curable mr-NIL210 resist, area-selective ALD and subsequent oxygen plasma treatment to remove the NIL resist.