

Supplemental file for “Sequential infiltration synthesis for sub 20 nm thermal scanning probe lithography patterns”

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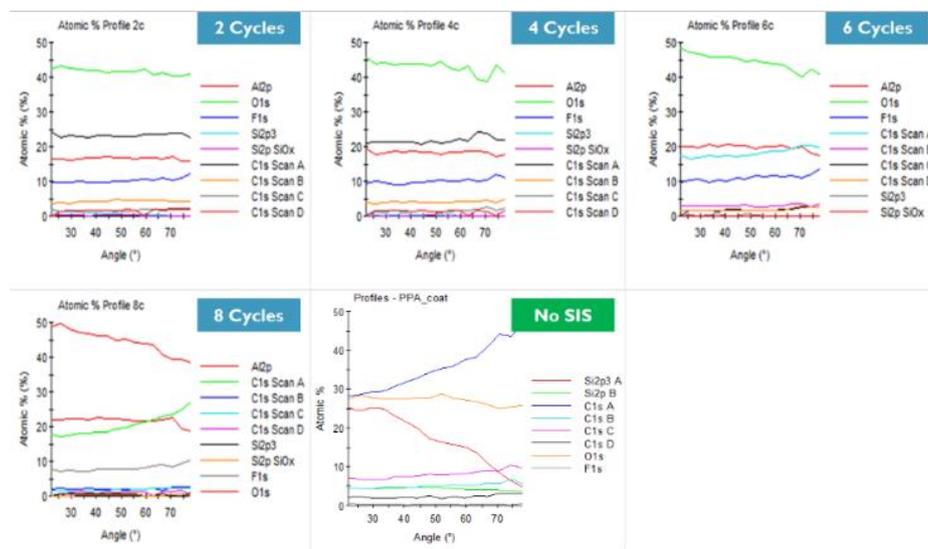


Figure 1. Angle resolved XPS analysis for PPA films with different numbers of aluminum oxide SIS cycles applied. A steady increase in the aluminum content corresponding to the number of cycles is observed.

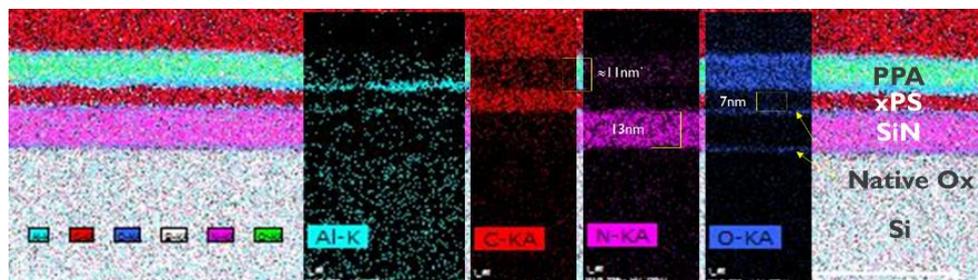


Figure 2. TEM EDS mapping of the elements present in the post-SIS treated PPA resist. Aluminum oxide is present in the PPA film but not in the x-PS layer.

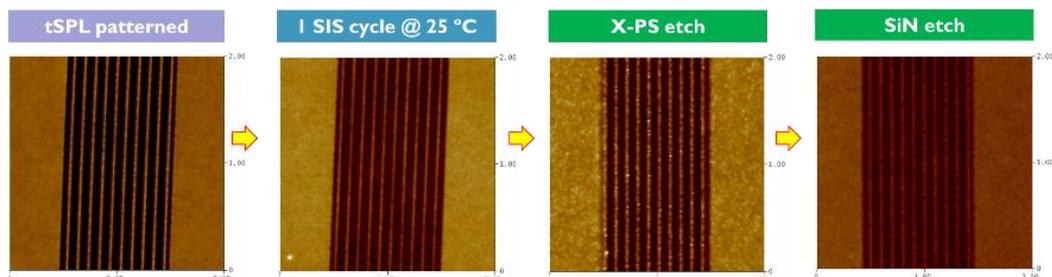


Figure 3. Atomic force microscope images taken at different stages of the pattern transfer process. From left to right: (1) a line pattern is written into PPA by t-SPL, (2) SIS of aluminum oxide is applied, (3) the line pattern is etched into the x-PS layer, (4) the lines are transferred to silicon nitride.