

Abstract Submitted
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Random Co-polymer Brushes: on Silicon; and on Amorphous Silicon Carbide on Silicon WILLIAM GIBSON, GUY HILBURN, RICHARD GRIFFIN, JEREMY JARL, ERIC BOTELLO, ELIZABETH COVINGTON, PHILLIP HARTNET, DEBORAH KOECK, DAVID DONNELLY, HEATHER GALLOWAY, Department of Physics, Texas State Univ. - San Marcos, SURESH MURUGESAN, GARY BEALL, CHAD BOOTH, PATRICK CASSIDY, Department of Chemistry and Biochemistry, Texas State Univ. - San Marcos — Deposition of random copolymer (RCP) brushes is a standard surface preparation for deposition of diblock copolymers on Si and related surfaces. We did a comparative study of cleaning methods for substrate preparation, and optimized the procedures for deposition of P(S-r-MMA) on Si, and amorphous SiC films on Si substrates. In both cases, we found a minimum anneal time of 8 h. We found no relation between RCP concentration in solution and ultimate RMS roughness. We found a successful non-destructive method for verification of RCP presence on both Si and SiC on Si substrates. We also found Super Critical CO₂ to be an effective alternative rinse method for removal of excess RCP after anneal

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