Abstract Submitted
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Random Copolymer Brushes on Silicon Carbide WILLIAM GIBSON, JEREMY JARL, ERIC BOTELLO, ELIZABETH COVINGTON, PHILLIP HARTNET, DEBORAH KOECK, DAVID DONNELLY, HEATHER GALLOWAY, SURESH MURUGESAN, GARY BEALL, CHAD BOOTH, PATRICK CASSIDY, Texas State University San Marcos — We are investigating the deposition of ordered films of diblock copolymers onto semiconductor substrates. These surfaces require a non-preferential surface to allow the ordering of the diblock material. The literature[1,2] available on the deposition of random copolymers (RCP) on silicon describes anneal times ranging from one to three days. We are interested in closer study of the necessary anneal time and of extending the use of RCP onto an amorphous SiC layer on silicon. We found a minimum anneal time and look at the significance of cooling method on the bonding/surface conditions of the RCP. We compared rinse methods post anneal. The analysis is accomplished using Fourier Transform Infrared Spectroscopy and Atomic Force Microscopy. [1] P. Mansky, Y. Liu, E. Haung, T. P. Russell, C. J. Hawker, *Science*, 275, 1458, 1997 [2] Ting Xu, Ho-Cheol Kim, Jason Derouchey, Chevey Seney, Catherine Levesque, Paul Martin, C. M. Stafford, T.P. Russell, *Polymer* 42, 9091, 2001

William Gibson
Texas State University San Marcos

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