STRUCTURE-PROPERTY RELATIONSHIPS OF: 1) NOVEL POLYURETHANE AND POLYUREA SEGMENTED COPOLYMERS AND 2) THE INFLUENCE OF SELECTED SOLUTION CASTING VARIABLES ON THE SOLID STATE STRUCTURE OF SYNTHETIC POLYPEPTIDE FILMS BASED ON GLUTAMATE CHEMISTRY

Derek B. Klinedinst

Dissertation submitted to the Faculty of the Virginia Polytechnic Institute and State University in partial fulfillment of the requirements for the degree of

> Doctor of Philosophy in Materials Science and Engineering

> Garth L. Wilkes, Committee Chair Timothy E. Long Robert B. Moore Abby R. Whittington

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