

4v Multi-Scale and Multi-Functional Microfabrication of Nanostructured Materials

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My research will focus on the chemistry and physics of nanostructured functional materials and on the nano-/micro-fabrication of self-assembled films of such materials for applications of technological importance, including a wide range of MEMS and fuel cell applications. This research will be approached using the principles of chemical engineering, synthetic materials science, solid state physics, and microfabrication technology. My doctoral research expertise in chemical engineering and materials chemistry, my additional education in physics, and my postdoctoral research experience in electrochemistry and microfabrication, enable me to gain new insights on problems which are of fundamental and technological importance. The projects described in the poster are examples of the problems which will be addressed in my research over the next few years and beyond.