

Nanoscale Synthesis and Characterization of Biomaterials

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ABSTRACT

This tutorial highlights the recent developments in methods for the nanoscale synthesis and characterizations of biomaterials. Soft biomaterials, and specifically hydrogels, will be the focus of this tutorial. The controlled synthesis of hydrogels via photolithography, soft lithography, nanoimprint lithography, and other methods will be reviewed. In addition, methods for characterization of these materials with micro- and nanoscale resolution, including atomic force microscopy, ellipsometry, confocal microscopy, and FTIR imaging, will be introduced