

Fabrication of Polydiacetylene Nanowire Using Nanotransfer Molding

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We report a new method of fabrication of polydiacetylene nanowire using liquid bridge-mediated nanotransfer molding (LB-nTM), a direct patterning method for the formation of two- or three-dimensional structures with feature sizes between tens of nanometers and tens of micron over large areas with various materials from a molder to a substrate via a liquid bridge between them. First, we fabricate assembled diacetylene monomer nanowire on the substrate then make it polymerize using 254nm UV-light irradiation. The Polydiacetylene nanowires have been investigated by UV-visible absorption spectroscopy, atomic force microscopy (AFM), and scanning electron microscopy (SEM).