

# High Resolution Patterning Method by Using Water-mediated Nanotransfer Molding

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We report a new direct printing method, called liquid-mediated nanotransfer molding (LB-nTM), that uses a polar liquid-mediated transfer process. LB-nTM is based on the direct transfer of various materials from a stamp to a substrate via a liquid-bridge between the stamp and the substrate. This procedure can be adopted in automated printing machines that generate various material patterns with a wide range of feature sizes (as small as 60 nm) on diverse substrates. To demonstrate its usefulness, the LB-nTM method was applied to prepare ZnO-nanowire and TIPS-pentacene transistors.