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The Simple Two-Step Polydimethylsiloxane (PDMS) Transferring Process for High Aspect Ratio Microstructures

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Abstract : High aspect ratio is the necessary parts of complex microstructures. Some methods available to achieve high aspect ratio requires expensive materials or complex process; others is difficult to research simple high aspect ratio structures. The paper presents a simple and cheap two-step Polydimethylsioxane (PDMS) transferring process to get high aspect ratio single pillars, which only requires covering the PDMS mold with Brij@52 surface solution. The experimental results demonstrate the method efficiency and effective.

Keywords: high aspect ratio, microstructure, PDMS, Brij

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