

Materials List for:

Micropunching Lithography for Generating Micro- and Submicron-patterns on Polymer Substrates

Anirban Chakraborty¹, Xinchuan Liu¹, Cheng Luo¹

¹Mechanical and Aerospace Engineering, University of Texas at Arlington

Correspondence to: Anirban Chakraborty at anirban@uta.edu

URL: <https://www.jove.com/video/3725>

DOI: [doi:10.3791/3725](https://doi.org/10.3791/3725)

Materials

Name	Company	Catalog Number	Comments
PMMA	Sigma-Aldrich	495C9	The solvent is chlorobenzene. Handle PMMA solution under a fume hood with adequate ventilation. Do not breathe the vapor. Refer to MSDS for safe handling instructions.
PPy	Sigma-Aldrich	--	5% by weight in water. Used as received.
PEDOT-PSS	H. C. Starck Co.	Baytron P HC V4	Proprietary solvent. Used as received.
SPANI	Sigma-Aldrich	--	Water soluble form. Used as received.
Hot embossing machine	JenoptikMikrotechnik Co.	HEX 01/LT	
Sputter machine	Cressington Co.	208HR	
FIB machine	Carl Zeiss, Inc.	FIB Crossbeam 1540 XB	
Spin coater	Headway Research Inc.	PWM32-PS-R790 Spinner System	
RIE machine	Technics MicroRIE Co.	--	
Photoresist	Shipley Co.	S1813	
PDMS	Dow Corning	Sylgard 184 Silicone elastomer kit	
HDPE sheet	US Plastic Corp.	--	
PMMA sheet	Cyro Co.	--	
Double-sided adhesive tape	Scotch Co.	--	
Single-sided tape	Delphon Co.	Ultratape # 1310	
Glass micropipettes	FHC, Inc.	30-30-1	
Clip	Office Depot	Bulldog clip	
Humidifier	Vicks Co.	Filter free humidifier	