

Sensitivity Enhancement of Soft Capacitive Pressure Sensors Using a Solvent Evaporation-Based Porosity Control Technique

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Materials

Name	Company	Catalog Number	Comments
3D printer	Zhejiang Qidi Technology Co., Ltd	X-MAX	
3D printing materials	Zhejiang Qidi Technology Co., Ltd	3D Printing Filament PLA 1.75 mm	
Carbon nanotubes (CNTs)	XFNANO	XFM13	
Data acquisition (DAQ)	National Instruments	USB6002	
Double side tape	Minnesota Mining and Manufacturing (3M)	3M VHB 4910	1 mm thick
Electrode metal mold	Guangdong Shunde Molarobot Co., Ltd		This metal mold is a round metal plate with a flat bottom round groove and an embossed electrode pattern of 0.2 mm thick in the middle of the groove.
Erythritol	Shandong Sanyuan Biotechnology Co.,Ltd.		
Isopropyl Alcohol (IPA)	Sinopharm chemical reagent Co., Ltd	80109218	
LabVIEW	National Instruments	LabVIEW 2019	
LCR meter	Keysight	EA4980AL	
Metal wire	Hangzhou Hongtong WIRE&CABLE Co., Ltd.	2UEW/155	
Microscope	Aosvi	T2-3M180	
Numerical modeling software	COMSOL	COMSOL Multiphysics 5.6	
Polydimethylsiloxane (PDMS)	Dow Chemical Company	SYLGAR 184 Silicone Elastomer Kit	Two parts (base and curing agent)
Sealing film	Corning	PM-996	parafilm
Si wafer	Suzhou Crystal Silicon Electronic & Technology Co.,Ltd	ZK20220416-03	Diameter (mm): 50.8 +/- 0.3 Type/Orientation: P/100 Thickness (μm): 525 +/- 25
Silver conductive paint	Electron Microscopy Sciences	12686-15	
Stepping motor	BEIJING HAI JIE JIA CHUANG Technology Co., Ltd	57H B56L4-30DB	

Sugar/erythritol template metal mold	Guangdong Shunde Molarobot Co., Ltd		This metal mold is a 5 mm thick square metal plate with a flat bottom square groove of 2.5 mm deep.
Toluene	Sinopharm chemical reagent Co., Ltd	10022819	