

Materials List for:

Iridium Oxide-reduced Graphene Oxide Nanohybrid Thin Film Modified Screen-printed Electrodes as Disposable Electrochemical Paper Microfluidic pH Sensors

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URL: <https://www.jove.com/video/53339>

DOI: [doi:10.3791/53339](https://doi.org/10.3791/53339)

Materials

Name	Company	Catalog Number	Comments
Screen-printed electrodes	Zensor	TE100	3-electrode integrated
Acrylonitrile butadiene styrene (ABS)			
Polydimethylsiloxane (PDMS) prepolymer and cross linker mixture	Dow-Corning Co.	Sylgard 184	10:1 mixture w/w
Whatman No. 1 filter paper	GE Healthcare Co.		
3D milling system	Roland DGA Co.	iModela IM-01	
PDMS stamp and vacuum cover	Roland DGA Co.	Sanmodur	Synthetic resin tablet
Hand-operated vacuum pump	Cole-Parmer Co.		
Electrochemical workstation	CH Instruments	CHI 660D	
LF356N operational amplifiers	Texas Instruments Inc.		
INA111 high speed field-effect transistor (FET)-input instrumentation amplifier	Burr-Brown Inc.		
DMM914 digital multimeter	Tektronix Inc.	70979101	
From Fisher or Sigma:			
Iridium tetrachloride (IrCl ₄)			
50% (w/w) hydrogen peroxide (H ₂ O ₂)			
Oxalic acid dihydrate			
Potassium carbonate (K ₂ CO ₃)			
Phosphoric acid			
Acetic acid			
Boric acid			
Sodium hydroxide (NaOH)			
Na ₂ HPO ₄			
NaH ₂ HPO ₄			