

Materials List for:

# Electrospinning of Photocatalytic Electrodes for Dye-sensitized Solar Cells

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## Materials

Name	Company	Catalog Number	Comments
titanium(IV) n-butoxide	Sigma-Aldrich	244112	
Polyvinylpyrrolidone	Sigma-Aldrich	437190	
glacial acetic acid	Sigma-Aldrich	A6283	
Ethanol, absolute	Fisher Scientific	E/0650DF/17	
20 mL Sample vials	(any)		(or larger volume)
disposable 21G needle	(any)		
P150 grit sandpaper	(any)		
disposable 10mL syringe	(any)		(or larger volume)
magnetic stirrer + stirring bar	(any)		
PHD 2000 syringe pump	Harvard Apparatus	71-2002	(or any other syringe pump capable of outputting a 1mL/hr flow)
Aluminium foil	(any)		
Stainless steel collector plate	(custom built)		
High Voltage Power Source	Gamma High Voltage Research, Inc	ES30P-10W	(or any other power supply capable of outputting +15 kV)
Polycarbonate protective shield	(custom built)		
Ceramic crucible	(any)		
Muffle furnace	(any)		
Titanium dioxide, nanopowder	Sigma-Aldrich	718467	
50 mL 1-neck round bottom flasks	(any)		
bath sonicator	(any)		
Terpineol	Sigma-Aldrich		
Rotary evaporator	(any)		
FTO glass	Solaronix	TCO30-10/LI	
Adhesive tape	(any)		
razor blade	(any)		
SEM	JEOL	6500F	
XRD	PANalytical	X'pert Pro	
Titanium Tetrachloride	Sigma-Aldrich	89545	
Ruthenizer 535-bisTBA	Solaronix	N719	
sealing film	Dyesol	Meltonix 1170-25	
Pt-coated FTO	Solaronix	TCO30-10/LI	
1-propyl-3-methylimidazolium iodide	Sigma-Aldrich	49637	
Iodine	Sigma-Aldrich	207772	

benzimidazole	Sigma-Aldrich	194123	
3-Methoxypropionitrile	Sigma-Aldrich	65290	
Digital source meter	Keithley	2400	
Solar Simulator	Abet technologies	10500	