

Materials List for:

Iron Nanowire Fabrication by Nano-Porous Anodized Aluminum and its Characterization

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Materials

Name	Company	Catalog Number	Comments
Acetone	Sigma Aldrich	CAS 67-64-1	
Aluminium Discs 99.999%	GoodFellow	AL000957	Thickness: 0.50mm +/- 10%, Diameter 25.0mm +/- 0.5mm
Big Beaker			1000 mL
Boric acid	Sigma Aldrich	101942058	99%
Cables			
Chromium (VI) oxide	fisher chemical	A98-212	
Cold plate	Thermo Scientific	Accel 500 LC	
Computer			Used with LabView to control the Sourcemeter
Copper (II) chloride			
Copper plate			Custom made
DC Power Source	Agilent	E3646A	
DI Water			
Dressing Forceps	fisher scientific	12-460-164	30.5 cm length, serrated tips
Ethanol	VWR International Ltd. (US)	20823.327	
Fume hood	Flores valles		
Hydrochloric acid	VWR International Ltd. (US)	20255.290	
Iron (II) sulfate	Merck	1.03965.1000	
L-Ascorbic acid	MP biomedicals	100769	
Magnetic rack	life technologies	DynaMag 2	
Magnetic stirrer and hot plate	IKA	RCT basic	
Mechanical stirrer	Aslong	JGB37-520	
Mixer and heater	Eppendorf	ThermoMixer F1.5	
Nylon cell			Custom made
Oxalic Acid	VWR International Ltd. (US)	20063.365-5L	
PDMS O-ring			Custom made
Perchloric acid	VWR International Ltd. (US)	20583.327	70-72 %
Petri dish			Or any other container
pH strip			Any pH strip
Phosphoric acid	acros organics	201140010	85%wt
Platinum	Goodfellow	PT005115	Diameter 0.05mm, 99.9% purity
Platinum wire	Goodfellow	PT05120	Diameter: 0.2 mm, Purity: 99.95%
Power Supply	Rhode & Scharz	NGPX 35/10	

Retort stand (x2)			
Screws			
Small beaker			50 mL
Source meter	Keithley	2400-C	
Sputter	Quorum	Q300T D	
Tape			Any temperature resistant tape
Teflon propeller			
Ultrasonic cleaner			