Materials List for:

Electrochemical Roughening of Thin-Film Platinum Macro and Microelectrodes

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Materials

Name	Company	Catalog Number	Comments
Acetone	Fisher Scientific, Sigma Aldrich or similar	n/a	Laboratory grade
EC-Lab Software	Bio-Logic Science Instruments	n/a	For instrument control and data analysis
Leakless Silver/Silver Chloride Reference	eDAQ Company, Australia	ET069-1	Free from chloride anion contamination (or other type of chloride free electrode e.g. Mercury sulfate electrode)
Mercury Sulfate & Acid Electrode Kit	Koslow, Scientific Testing Instruments	5100A	glass, 9mm version
Milipore DI water	MilliporeSigma	n/a	Certified resistivity of 18.2 MΩ.cm (at 25°C)
Perchloric acid, 99.9985%	Sigma Aldrich	311421	High Purity
Phosphate-buffered saline	Teknova	P4007	10mM PBS with 100mM NaCl, pH 7 or similar product from elsewhere
Platinum Wire Auxiliary Electrode (7.5 cm)	BASi	MW-1032	Counter electrode
Pt macroelectrodes	Lawrence Livermore National Laboratory	n/a	1.2 mm diameter, 250 nm thick Pt disc electrodes insulated in polyimide. More information in Reference 9.
Pt microelectrode arrays	Lawrence Livermore National Laboratory	n/a	20 µm diameter 250 nM thick Pt disc electrodes insulated in polyimide. More information in Reference 9.
Sulfuric acid, 99.999%	Sigma Aldrich	339741	High Purity
UV & Ozone Dry Stripper	Samco	UV-1	for cleaning electrodes
VersaSTAT 4 Potentiostat	AMETEK, Inc.	n/a	Good time resolution for pulsing tests
VersaStudio Software	AMETEK, Inc.	n/a	For instrument control
VMP-200 Potentiostat	Bio-Logic Science Instruments	n/a	Low current resolution option is preferable for measurements with microelectrodes