

Materials List for:

Probing and Mapping Electrode Surfaces in Solid Oxide Fuel Cells

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Materials

Name	Company	Catalog Number	Comments
Nickel mesh	Alfa Aesar	CAS: 7440-02-0	
Ni Foil	Alfa Aesar	CAS: 7440-02-0	
YSZ powder	TOSOH	Lot No:S800888B	
Ag paste	Heraeus	C8710	
Barium oxide	Sigma-Aldrich	1304-28-5	
Silver wire	Alfa Aesar	7440-22-4	
Acetone	VWR	67-64-1	
Ethanol	Alfa Aesar	64-17-5	
UHP H ₂	Airgas		99.999% purity
100 ppm H ₂ S/H ₂	Airgas		Certified custom mix
n-type Si AFM tip	MikroMasch	NSC16	10 nm tip radius
Au coated AFM tip	MikroMasch	CSC11/Au/Cr	20-30 nm tip radius
Raman Spectrometer	Renishaw	RM1000	
Ar Ion laser	ModuLaser	StellarPro 150	
He-Ne laser	Thorlabs	HPL170	
Atomic Force Microscope	Veeco	Nanoscope IIIA	
Moving Raman Stage	Prior Scientific	H101RNSW	
Optical Microscope	Leica	DMLM	
Scanning Electron Microscope	LEO	1550	
Tube Furnace	Applied Test Systems	2110	
Polisher	Allied High Tech Products	MetPrep	
6 μm Grinding media	Allied High Tech Products	50-50040M	
3 μm Polishing media	Allied High Tech Products	90-30020	
1 μm Polishing media	Allied High Tech Products	90-30015	
0.1 μm Polishing media	Allied High Tech Products	90-32000	
Raman chamber	Harrick Scientific	HTRC	