

Materials List for:

Spark Plasma Sintering Apparatus Used for the Formation of Strontium Titanate Bicrystals

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Materials

Name	Company	Catalog Number	Comments
Strontium titanate single crystal (100)	MTI Corporation	STOa101005S1-JP	
Buffered oxide etch, hydrofluoric acid 6:1	JT Baker	MBI 1178-03	
Scanning electron microscope (SEM)	FEI	Model: 430 NanoSEM	
SPS apparatus	Sumitomo Coal Mining Co	Model: Dr. Sinter 5000 SPS Apparatus	
High Temperature Furnace	Thermolyne	Model: 41600	
Ultrasonic Cleaner	Branson	Model: 221	
Mechanical polisher	Allied High Tech Products	15-2100-TEM	
Diamond lapping film	3M	660XV	1 μm to 9 μm Grit Size
Diamond lapping film	3M	661X	0.5 μm to 0.1 μm Grit Size
Colloidal silica	Allied High Tech Products	180-20000	0.05 μm Grit Size
Sputter coater	QuorumTech	Model: Q150RES	
Focused ion beam (FIB) instrument	FEI	Model: Scios dual-beamed focused ion beam (FIB) instrument	
Nanomill TEM specimen preparation system	Fischione Instruments	Model: 1040	
Transmission electron microscope (TEM)	JEOL	Model: JEM2500 SE	
Scanning transmission electron microscope (STEM)	FEI	Model: TEAM 0.5	