

Materials List for:

# Seedless Growth of Bismuth Nanowire Array via Vacuum Thermal Evaporation

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## Materials

Name	Company	Catalog Number	Comments
Bismuth	Sigma-Aldrich	556130	Granular, 99.999%
Vanadium Slug	Alfa Aesar	42829	3.175 mm (0.125 in) dia x 6.35 mm (0.25 in) length, 99.8%
Vanadium Sputtering Target	Kurt J. Lesker	EJTVXX253A2	3.00" Dia. x 0.125" Thick, 99.5%
Acetone	Sigma-Aldrich	179124	>99.5%
Ethanol	Alfa Aesar	33361	Anhydrous
Silicon Wafer	University Wafers		300 microns in thickness, (100) orientation
Silver Filled Epoxy	Circuit Works	CW2400	Two part conductive epoxy resin
Tungsten Boat, Alumina Coated	R. D. Mathis	S9B-AO-W	For bismuth thermal evaporation
Tungsten Boat	R. D. Mathis	S4-.015W	For vanadium thermal evaporation
RIE Plasma	Nordson March	CS-1701	
PVD 75 Vapor Deposition Platform	Kurt J. Lesker	PEDP75FTCLT001	Equipped with three thermal evaporation source and one DC magnetron sputtering source
Thermoelectric Temperature Controller	LairdTech	MTTC-1410	
PT1000 RGD	LairdTech	340912-01	Temperature sensor for MTTC-1410
Thermoelectric Module	LairdTech	56910-502	
Ultrasonicator	Crest Ultrasonics	Tru-Sweep 175	