

Materials List for:

Fabrication, Densification, and Replica Molding of 3D Carbon Nanotube Microstructures

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Materials

Name	Company	Catalog Number	Comments
4" diameter <100> silicon wafers coated with SiO ₂ (300 nm)	Silicon Quest	Custom	
Positive photoresist	MicroChem	SPR 220-3.0	
Hexamethyldisilazane (HMDS)	MicroChem		
Developer	AZ Electronic Materials USA Corp.	AZ 300 MIF	
Sputtering system	Kurt J. Lesker	Lab 18	Sputtering system for catalyst deposition
Thermo-Fisher Minimate	Fisher Scientific	TF55030A	Tube furnace for CNT growth
Quartz tube	Technical Glass Products	Custom	22 mm ID × 25 mm OD 30" length
Helium gas	PurityPlus	He (PrePurified 300)	
Hydrogen gas	PurityPlus	H ₂ (PrePurified 300)	UHP
Ethylene gas	PurityPlus	C ₂ H ₄ (PrePurified 300)	UHP
Perforated aluminum sheet	McMaster-Carr	9232T221	For holding sample above densification beaker
UV flood lamp	Dymax	Model 2000	
SU-8 2002	MicroChem	SU-8 2002	
Polydimethylsiloxane (PDMS)	Dow Corning	Sylgard 184 Silicone Elastomer Kit	