

Materials List for:

Fabrication of Three-Dimensional Graphene-Based Polyhedrons *via* Origami-Like Self-Folding

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URL: <https://www.jove.com/video/58500>

DOI: [doi:10.3791/58500](https://doi.org/10.3791/58500)

Materials

Name	Company	Catalog Number	Comments
Acetone	Fisher Chemical	A18P-4	N/A
Aluminium oxide	Kurt J. Lesker Company	EVMALO-1-2.5	99.99% Pure
APS Copper Etchant 100	Transene Company, Inc.	N/A	N/A
Camera (for 3D image)	Nikon	D5100	1080p Full HD, Effective pixels: 16.2 million, Sensorsize: 23.6 mm x 15.6 mm
CE-5 M Chromium Mask Etchant	Transene Company, Inc.	N/A	N/A
Chemical deposition growth (CVD) system	Customized	N/A	Lindberg/Blue Tube Furnace
Chromium	Kurt J. Lesker Company	EVMCR35J	99.95% pure
Chromium Etchant 473	Transene Company, Inc.	N/A	N/A
Copper	Kurt J. Lesker Company	EVMCU40QXQJ	99.99% pure
Developer-1 (MF319 developer)	Microposit	10018042	N/A
Developer-2 (AZ developer)	Merck performance Materials Corp.	1005422496	N/A
Developer-3 (SU-8 developer)	MicroChem	NC9901158	N/A
Digital Hot Plate	Thermo Scientific	HP131725	Super-Nuova series, maximum temperature: 370 °C
E-Beam Evaporator System	Rocky Mountain Vacuum Tech.	N/A	RME-2000
Graphene oxide	Goographene	N/A	Purity: ~ 99%; Single layer ratio: ~99%; 0.7-1.2 nm in thickness.
Isopropyl Alcohol	Fisher Chemical	A416-4	N/A
Mask Aligner	Midas	MDA-400LJ	N/A
Microscope	Omax	NJF-120A	N/A
multiple polymethyl methacrylate (PMMA)	MicroChem	950 PMMA A9	N/A
Oxygen plasma	Technics Inc.	SERIES 800	Microscale reactive ion etching (RIE)
Photoresist-1 (S1813 Photoresist)	Microposit	10018348	N/A
Photoresist-2 (SPR220 Photoresist)	MicroChem	SPR00220-7G	N/A
Photoresist-3 (SU-8 Photoresist)	MicroChem	SU-8-2010	N/A
Profilometer	Tencor Instruments	N/A	Alpha-Step 200
Raman	WITec Instruments Corp.	Alpha300R	Confocal Raman Microscope
Silicon Wafer	Siltronic AG	N/A	100mm diameter, N-type, one-side polish, resistivity: 560-840 Ω•cm
Spinner	Best Tools	S0114031123	SMART COATER 100
Titanium	Kurt J. Lesker Company	EVMTI45QXQA	99.99% Pure

Ultrasonic Cleaner	Crest Ultrasonics	N/A	Powersonic series
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