

Materials List for:

# Preparation of Graphene Liquid Cells for the Observation of Lithium-ion Battery Material

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URL: <https://www.jove.com/video/58676>

DOI: [doi:10.3791/58676](https://doi.org/10.3791/58676)

## Materials

Name	Company	Catalog Number	Comments
Tin chloride dihydrate	Sigma Aldrich	CAS 10025-69-1	In a glass bottle
Ethanol	Merck	CAS 64-17-5	In a glass bottle
Dimethylformamide	Sigma Aldrich	CAS 68-12-2	In a glass bottle
Polyvinylpyrrolidone	Sigma Aldrich	CAS 9003-39-8	In a plastic bottle
Cell tester	KOREA THERMO-TECH	Maccor Series 4000	
Cell tester 2	WonaTech	WBCS4000	
Sodium perchlorate	Sigma Aldrich	CAS 7601-89-0	In a glass bottle
25 gauge needle	Hwa-In Science Ltd.		
1.3 M of lithium hexafluorophosphate (LiPF <sub>6</sub> ) dissolved in EC/DEC with 10 wt% of FEC	PANAX ETEC		In a stainless steel bottle
Propylene carbonate	Sigma Aldrich	CAS 108-32-7	In a glass bottle
Super P Carbon Black	Alfa-Aesar	CAS 1333-86-4	In a glass bottle
Cell components (bottom cell, top cell, separator, gasket, spring, spacer)	Wellcos Corporation		
Cell punch	Wellcos Corporation		
Glove Box	Moisture Oxygen Technology (MOTEK)		
Box Furnace	Naytech	Vulcan 3-550	
Electrospinning device	NanoNC		
Hydrofluoric acid	Junsei	84045-0350	85%
Cu foil	Alfaesar	38381	Copper Thinfoil, 0.0125mm thick, 99.9%
Holy carbon Au grid	SPI	Quantifoil R2/2 Micromachined Holey Carbon Grids, 300 Mesh Gold	Quantifoil R2/2 Micromachined Holey Carbon Grids, 300 Mesh Gold
Isoprophyl alcohol	Sigmaaldrich	W292907	99.70%
Ammonium persulfate	Sigmaaldrich	248614	98%
Transmission electron microscope (TEM)	JEOL	JEOL JEM 3010	300 kV
Chemical vapor depistion (CVD)	Scientech		
Charge coupled device (CCD)	Gatan	Orius SC200	
Plasma Cleaner	Femtoscience	VITA	
Electrospinning program	NanoNC	NanoNC eS- robot	