

Materials List for:

Three-electrode Coin Cell Preparation and Electrodeposition Analytics for Lithium-ion Batteries

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Materials

Name	Company	Catalog Number	Comments
Agate Mortar and Pestle	VWR	89037-492	5 in diameter
Die Set	Mayhew	66000	
Laboratory Press	MTI	YLJ-12	
Analytical Scale	Ohaus	Adventurer AX	
High-Shear Mixing Device	IKA	3645000	
Argon-filled Glovebox	MBraun	LABstar	
Hydraulic Crimper	MTI	MSK-110	
Battery Cycler	Arbin Instruments	BT2000	
Potentiostat/Galvanostat/EIS	Bio-Logic	VMP3	
Vacuum Oven and Pump	MTI	-	
Copper Wire	Remington	PN155	32 AWG
Glass Balls	McMasterr-Carr	8996K25	6 mm borosilicate glass balls
Stirring Tube	IKA	3703000	20 ml
Celgard 2500 Separator	MTI	EQ-bsf-0025-60C	25 µm thick; Polypropylene
Stainless Steel CR2032 Coin Cell Kit	Pred Materials		Coin cell kit includes: case, cap, PP gasket
Stainless Steel Spacer	Pred Materials		15.5 mm diameter × 0.5 mm thickness
Stainless Steel Wave Spring	Pred Materials		15.0 mm diameter × 1.4 mm height
Li-ion Battery Anode - Graphite	MTI	bc-cf-241-ss-005	Cu Foil Single Side Coated by CMS Graphite (241mm L x 200mm W x 50µm Thickness)
Li-ion Battery Cathode - LiCoO ₂	MTI	bc-af-241co-ss-55	Al Foil Single Side Coated by LiCoO ₂ (241mm L x 200mm W x 55µm Thickness)
Polyvinylidene Difluoride (PVDF)	Kynar	Flex 2801	
N-Methyl-2-Pyrrolidinone Anhydrous (NMP), 99.5%	Sigma Aldrich	328634	
CNERGY Super C-65	Timcal		
Electrolyte (1.0 M LiPF ₆ in EC/DEC, 1:1 by vol.)	BASF	50316366	
Lithium Titanate (Li ₄ Ti ₅ O ₁₂)	Sigma Aldrich	702277	
KS6 Synthetic Graphite	Timcal		
Lithium Metal Ribbon	Sigma Aldrich	320080	0.75 mm thickness

Epoxy Multipurpose	Loctite		
Electrical Tape	Scotch 3M Super 88		
Isopropyl Alcohol (IPA), ACS reagent, ≥99.5%	Sigma Aldrich	190764	