MTI

KJ GROUP

Premier Solutions
Sharpens Your Solution

ALL Your Battery Materials and Equipment Provider

Coin Cell

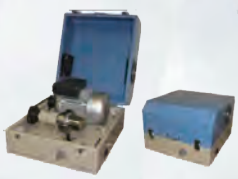
www.premier-sols.com

Equipment for Battery Research of Coin Cell

MTI provides total solution for research of new generation rechargeable battery, supercapacitors and energy storage material. We supply whole line of desk-top lab machines from electrode coating, to coin cell crimping and following battery analysis. You can set up a research lab in one room under $20K budget

Rotary Furnace

XRD



Ball Mill

Electrode Coater

Vacuum Oven

Hot Electrode Roller

Disc Puncher

Coin Cell Crimper

Humidity Controlled Glove Box

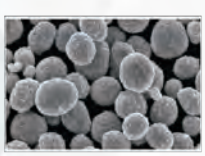
Electrolyte & Dispenser

Spot Welder

Battery Potentiostat & Analyzer

All Type Coin Case

Split Test Cells



Battery Powders & Benders

Completed Accessories

Li-ion Coin Cell Fabrication & Equipment

Step 1 Electrode Sheet Preparation

Furnace to sinter raw active material (Cathode & Anode)

⇨ **Milling Machine** to mill material to smaller particles

⇨ **Mixer** to mixing active, conductive and binder material into paste in vacuum

⇨ **Coater** to coat paste on current collector and attached **Heater** to dry it

⇨ **Rolling Press** (Calender) to roll the electrode to proper thickness

⇨ **Vacuum Oven** to bake the electrode to drive away moisture inside

Step 2 Cell Assembly

Disc Cutter to cut single coated anode, cathode and separator into disc shape

⇨ **Pressing Machine** to press (flatten) the discs and then soak them into the electrolyte in glove box with H_2O and O_2 lower than 1ppm

⇨ **Stack the discs** by the order in the coin cell case: Cathode + Separator + Anode + Spacer(s) + Spring (Current collector from both electrodes contact to the concave side of the each case part)

⇨ **Electrolyte Filler** to fill proper amount of electrolyte into the case

⇨ **Crimping Machine** to crimp the coin cell so that the battery core is sealed in the case

Step 3 Battery Testing

Battery Analyzer to test the coin cell's performance and **Impedance Tester** to measure battery's internal resistance

MTI Corporation