



Solid Energies Inc.

Electrode Coating Layer Development Services

www.solidenergies.com

CATHODE & ANODE ELECTRODE COATING PROCESS FLOW

CATHODE

1 Binder Dissolution
(PVDF/NMP)

2 AM + Carbon
Dispersion

3 Filtering & Degassing

4 Coating on Al Foil

5 Drying &
Calendering

6 Characterization

ANODE

1 CMC Dissolution
(Aqueous)

2 Graphite / Si
Dispersion

3 SBR Addition &
Filtering

4 Coating on Cu Foil

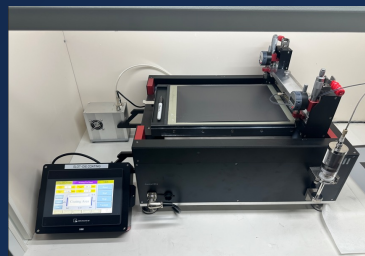
REPRESENTATIVE COATING FACILITIES & EQUIPMENT



R&D Cleanroom
(Class-1000, ~350 sq ft)



Thinky ARE250 Mixer
(Small, ~0.3 L)



**Desktop Doctor-
Blade Coater**



Pilot-line Cleanroom
(Class-1000, ~700 sq ft)



Planetary Mixer
(Mid, ~2-5L)



**Roll-to-roll (R2R)
Slot-Die Coating**



**R2R Electrode
Calendering**

REPRESENTATIVE PROGRAMS & PROJECTS

California Energy Commission (CEC): EPC-21-039

Pilot-line Electrode Manufacturing

- Pilot-line electrode slurries formulation and filtration
- Slot-die coating scale-up to roll-to-roll

DoE ARPA-E: DE-AR0001913

Multilayer, Thickness Control-Electrode Coating

- 3-5 layers, 15-150um cathode coating development
- Crack-free drying window

NASA: 80NSSC24PB510

Low Viscosity Polymer Electrolyte Coating

- Semi-solid-state electrolyte precursor coating
- Coating uniformity and defect characterization

From formulation to roll-to-roll coating — one partner for electrode development, scale-up, and qualification

Contact: contact@solidenergies.com · (714) 770-0064 · www.solidenergies.com

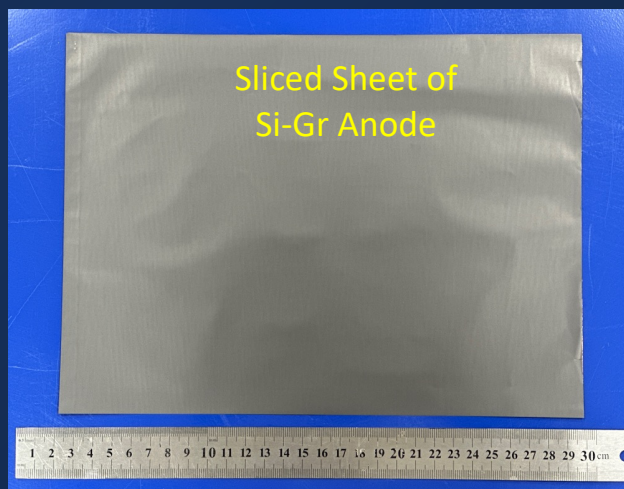
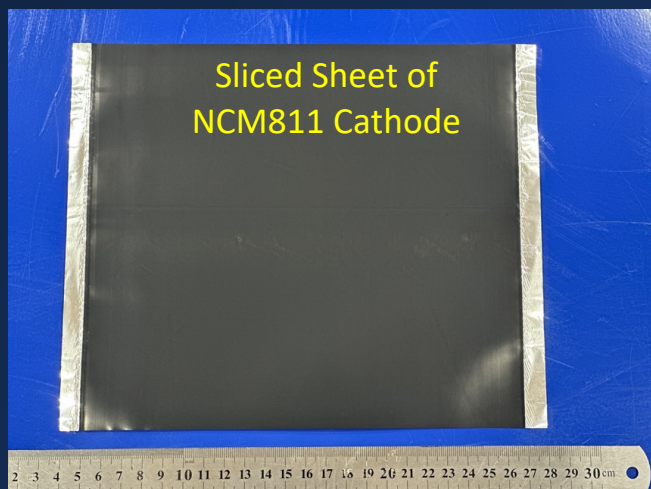
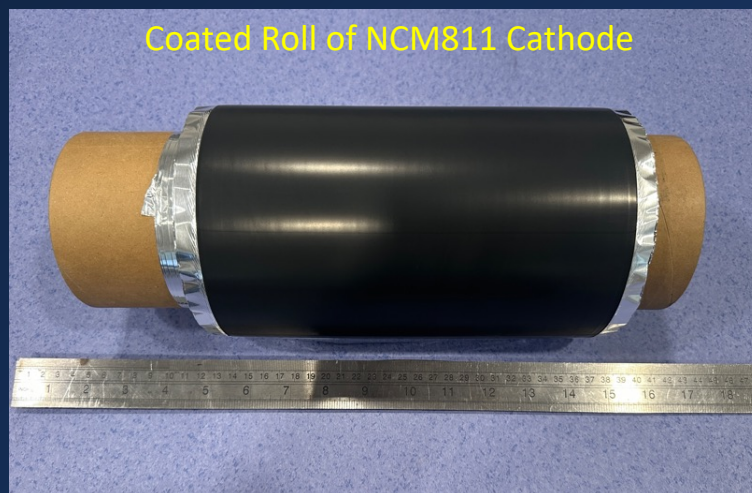


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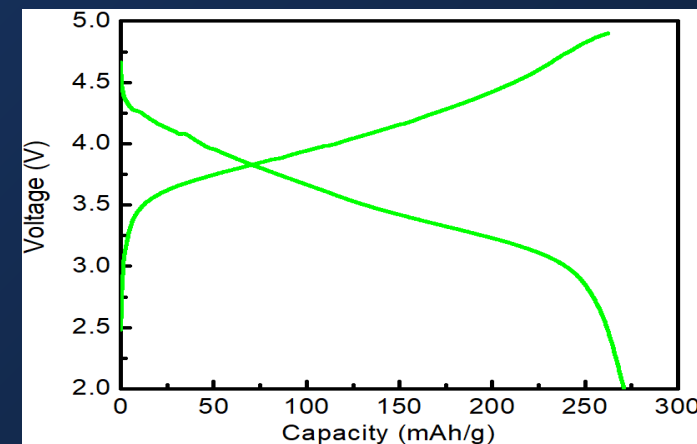
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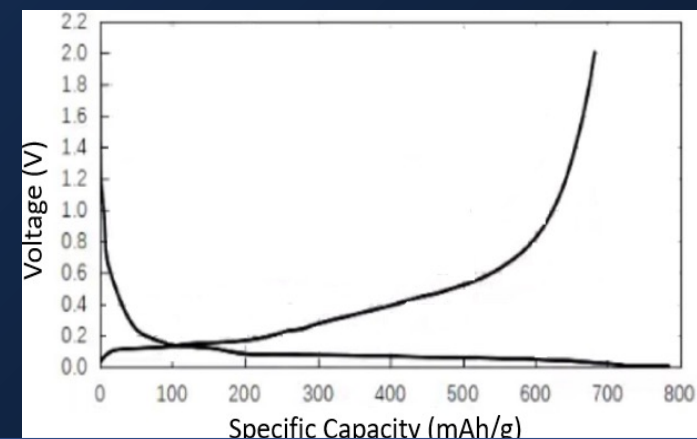
Typical Coated Electrode Layers and Rolls



Typical Charge-discharge Curves of Coated Electrodes



Charge-discharge Curves of Coated LMR Cathode



Charge-discharge Curves of Coated Si-Gr Anode

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