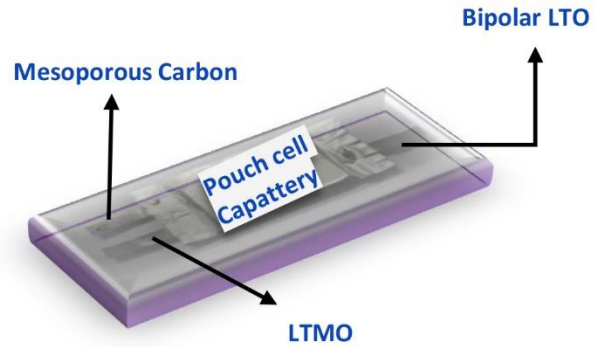


Single Cell Hybrid Capattery Energy Storage System

Unique Selling Point

- Single Hybrid Capattery with supercapacitor and Li-ion battery.
- Bipolar system with three electrodes in one device.
- Complete Closed loop operation (CLO).
- High energy and power density
- Recovery of Lithium by recycling process
- Can be developed in two form factors (Pouch & Prismatic)



Inventor

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Key Features of Technology

- ✓ TRL: 5 - 6
- ✓ Indigenized Capattery Technology with very low ESR
- ✓ Energy density > 200 Wh/kg
- ✓ Power density of 8.5 kW/kg
- ✓ Nominal Voltage: 2.65 V
- ✓ 100% Depth of Discharge (DOD)
- ✓ Number of Cycles: >2000



Pouch Type 5mF Carbon Supercapacitor - Prototype

Intellectual Property

A SINGLE CELL HYBRID
CAPATTERY ENERGY
STORAGE SYSTEM

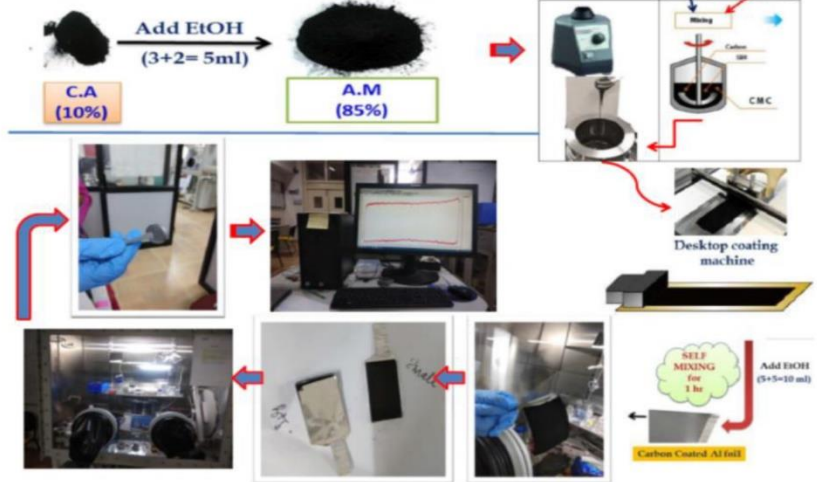
Applicant(s) –
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IN Patent Granted: 354533

PCT Application Filed:

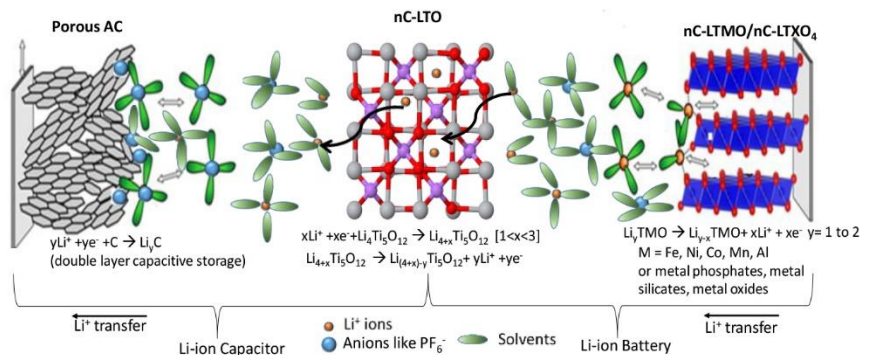
PCT/IN2021/050404

Complete Process Flow – From Raw materials up to Device testing



Advantages

- Two devices in a single cell
- Light weight
- Low materials consumption
- Can function as energy storage device during regenerative breaking of vehicles
- Wider applications from Electromobility to stationary energy storage.



Capattery - Non-aqueous electrolyte formulation

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