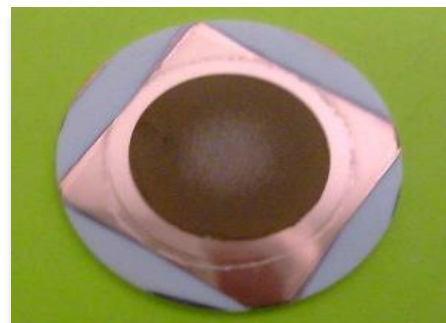


All-Solid-State Batteries using Protected Lithium Metal Anode Cassette (PLC) using Flexible Ceramic Solid Electrolyte

Unique Selling Point

- Flexible Ceramic Solid Electrolyte Membrane
- No risk of thermal run-away or Fire Hazard
- High Dendrite Resistance
- High Energy Density >350 Wh/kg
- Longer Cycle life (>2000)
- Plug n Drive using Replaceable Lithium metal Anode Cassettes (PLC) for Li/Air Technology



Monolithic Protected Lithium Cassette Anode Embedded on Ceramic Solid Electrolyte

Inventor

Dr. S.R.S. Prabaharan

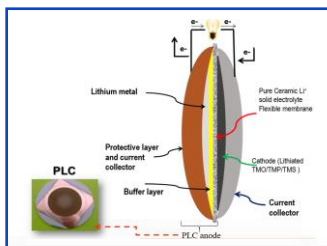
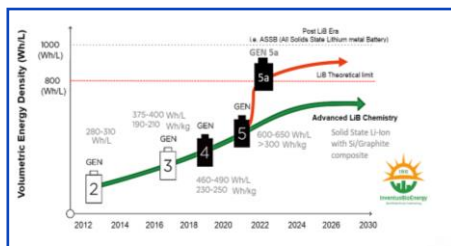
Inventus BioEnergy Pvt Ltd
No. 14, 3rd cross street,
Saradhambhal Nagar,
Venbakam, Chengalpattu,
TamilNadu, 603111.



Categories of this invention

- Energy
- Energy Storage
- Batteries
- Lithium Batteries - Solid State Batteries

Work Flow



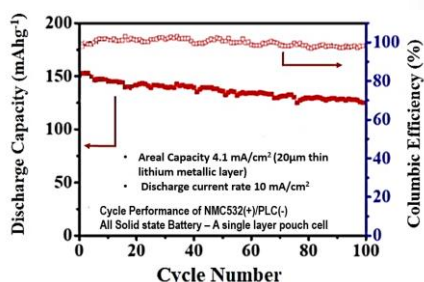
Intellectual Property

MONOLITHIC PROTECTED LITHIUM CASSETTE ANODE AND METHODS FOR ITS FABRICATION

Applicant(s) –

1. PRABAHARAN Savari Rathinam Sahaya,
2. SESHADRI Harinipriya,
3. SILUVAI MICHAEL Michael Dason

Indian Patent Pending- 202041031236A



Key Features

- Technology Readiness Level: 6-7
- Energy Density :
 - Li/NMC811 : >350 Wh/kg
 - Li/S : > 550 Wh/kg
- Nominal Voltage: > 4.4 V
- Number of Cycles- >2000
- % capacity remains >80% after 2000 cycles

Advantages

- Light Weight & Portable
- Better Compatibility
- Low Migrant Factor
- Usage of Lithium metal anode in the form of monolithic stacked cassette
- Increased Energy Density and compatible for all Lithium metal anode based advanced cell chemistries
- Environment Friendly

Potential Value

- 1 Global lithium-ion battery market size growth with CAGR of 34.2 % by 2030 (Source: IDTEchEx)
- 2 Market shift for Electric Vehicles with high-energy density Li-Ion batteries.
- 3 Applications in EV, smartphones, power tools, and digital cameras and more.

Reach Us

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