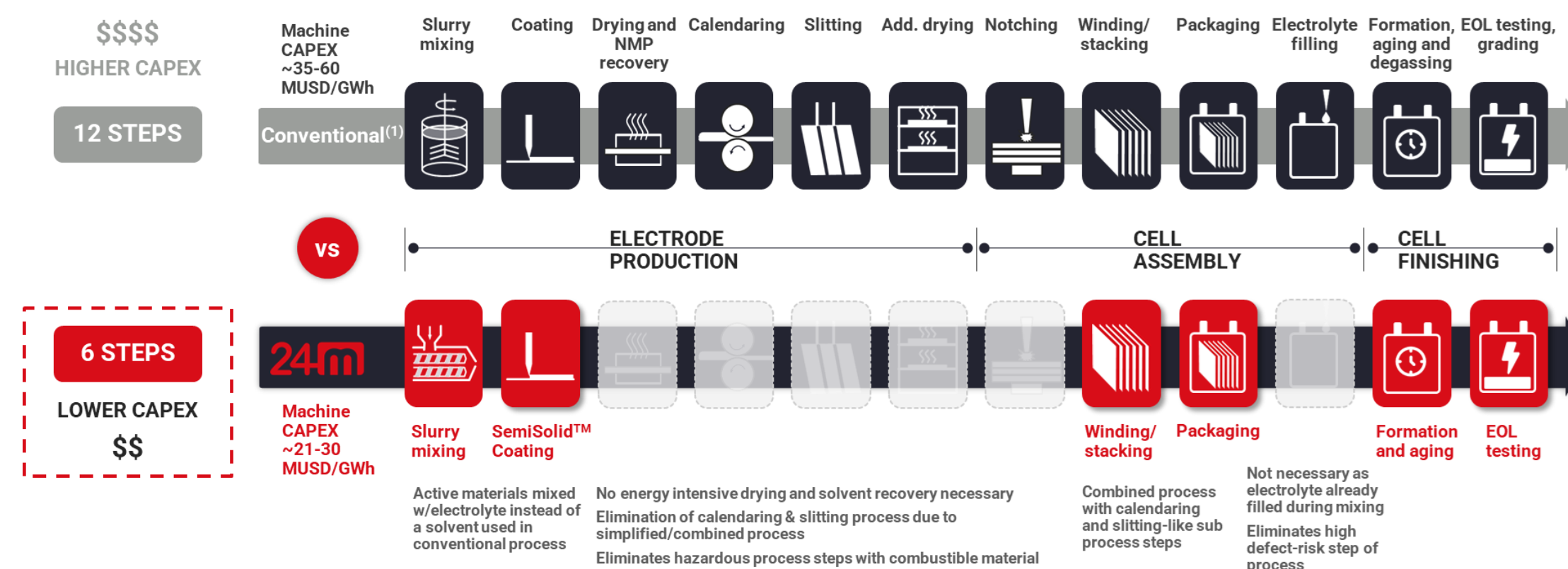


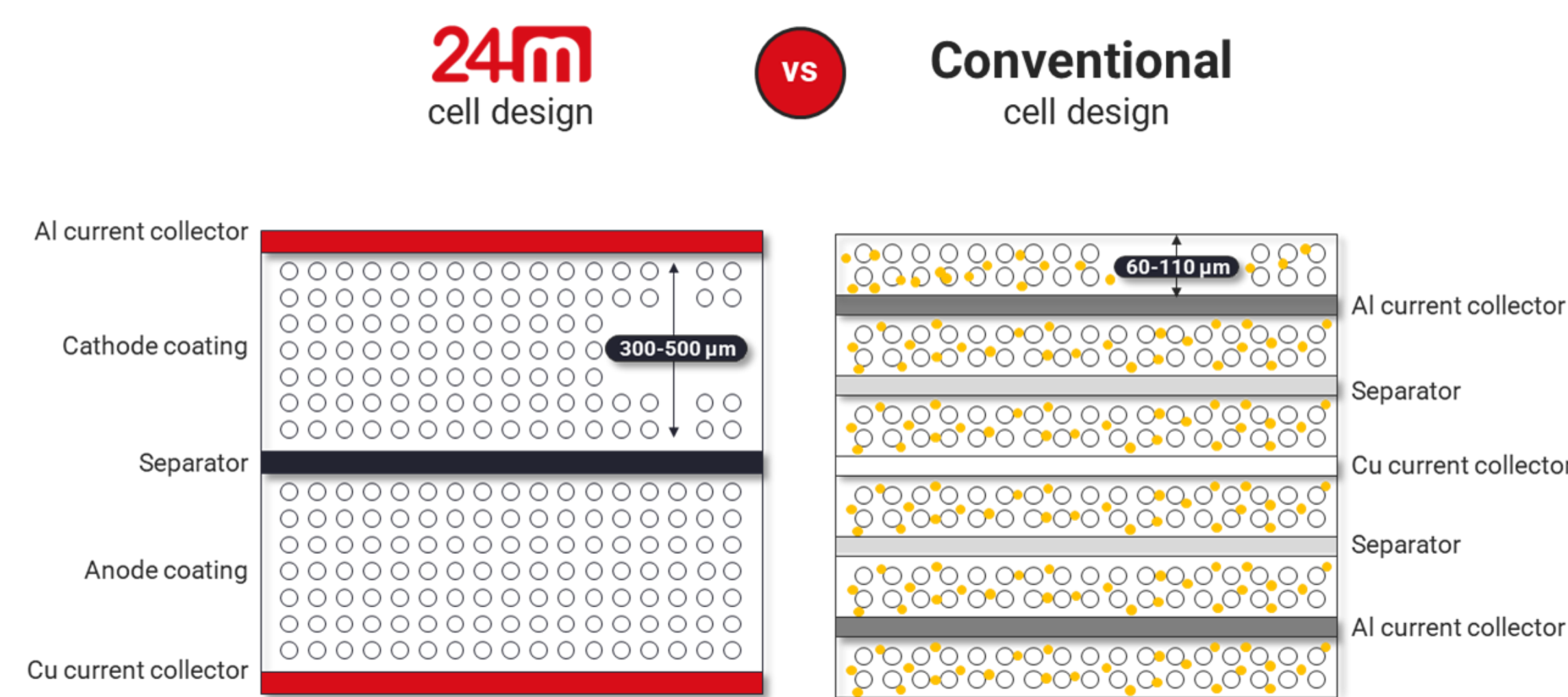


# High Energy & Power Density Lithium Metal Cells to Enable Transformative Energy Storage Products for the Aerospace Industry

## SemiSolid Platform Technology



24M's patented SemiSolid™ manufacturing process to produce ultra-thick, fully recyclable electrodes capable of achieving 2-3x areal capacities as conventional electrodes, while eliminating multiple processing steps and the need for environmentally harmful solvents such as NMP. Additionally, SemiSolid™ electrodes reduce the weight and volume of inactive materials such as foils and separators.



## High Density Pack Design

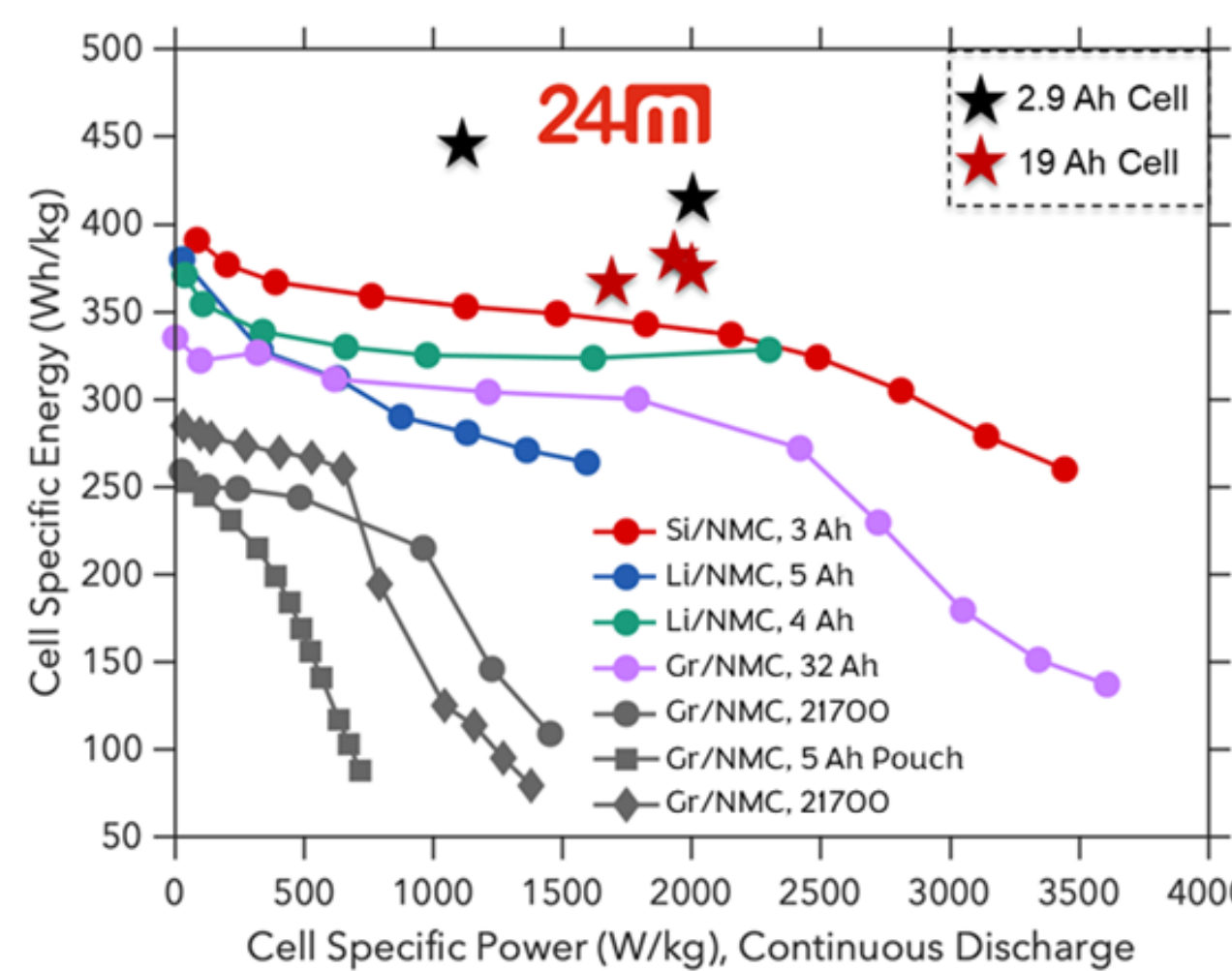
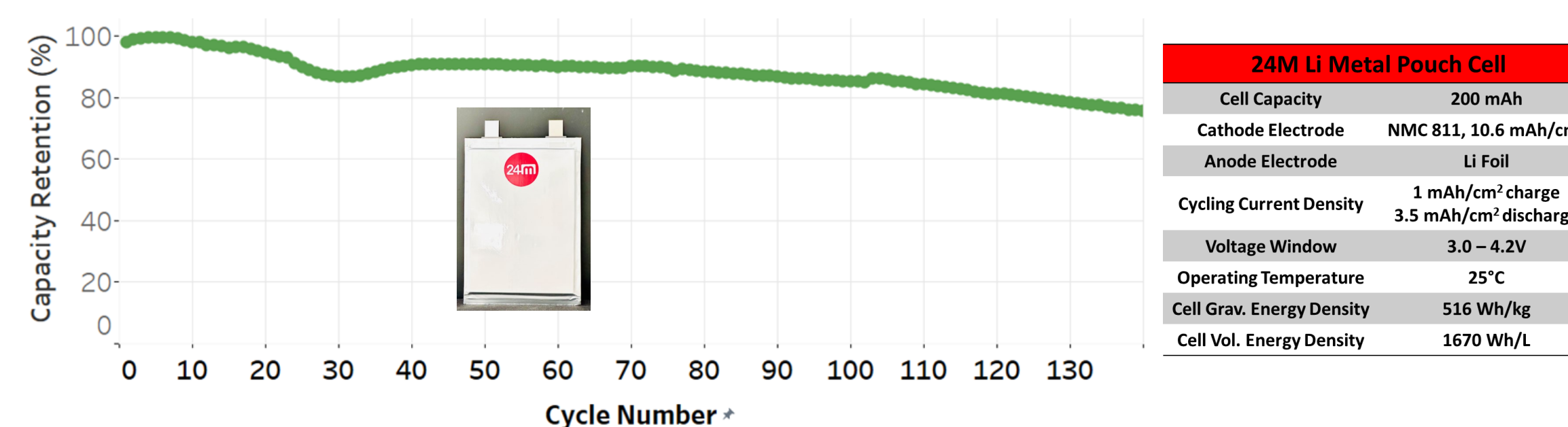
24M's Electrode to Pack ("ETOP™") technology is a streamlined battery pack system that features electrodes packaged directly into the battery pack, removing the need for individual cells and modules and eliminating unnecessary packaging materials.

**24M ETOP™ Electrode-to-Pack Technology**



## Superior Li Metal Energy Density

Incorporation of 24M's ultra-thick, high areal loading (>10 mAh/cm<sup>2</sup>) SemiSolid™ NMC-811 Cathode enables unit cell technology to achieve > 500 Wh/kg and > 1600 Wh/L. 24M has scaled up the manufacturing of Li metal cells on their Cambridge pilot line to ~300 cm<sup>2</sup> form factor.



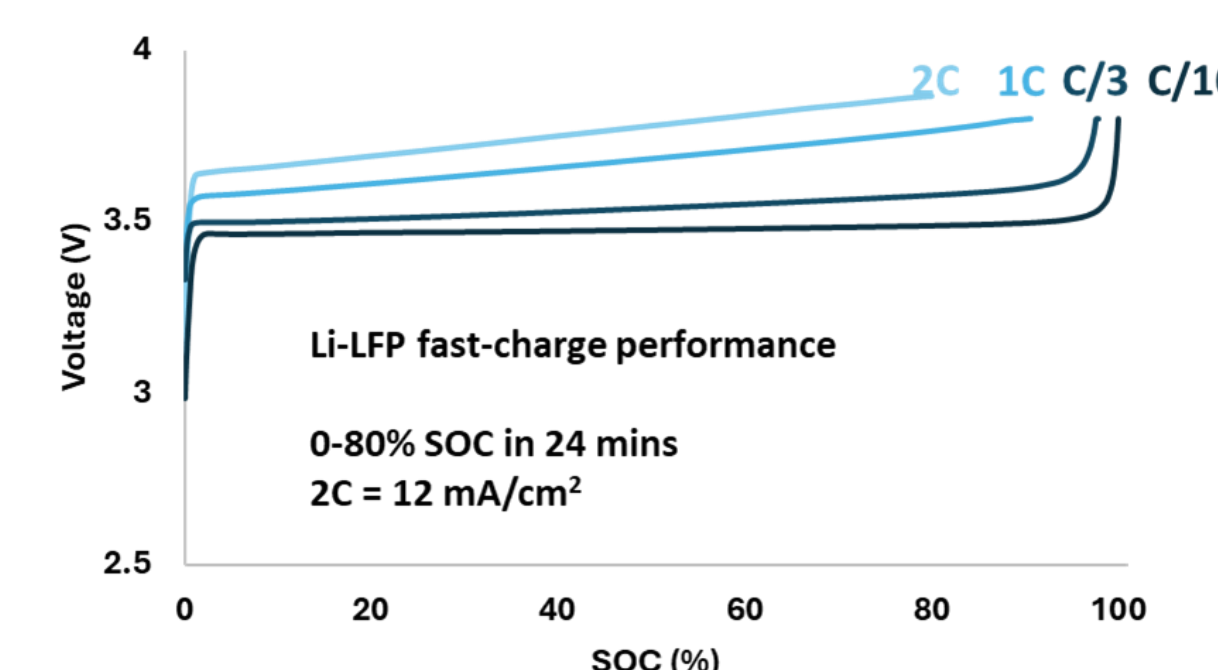
24M's SemiSolid™ Li/NMC cell technology outperforms competitors at corresponding energy and peak power density metrics.

## High Performance Electrolyte

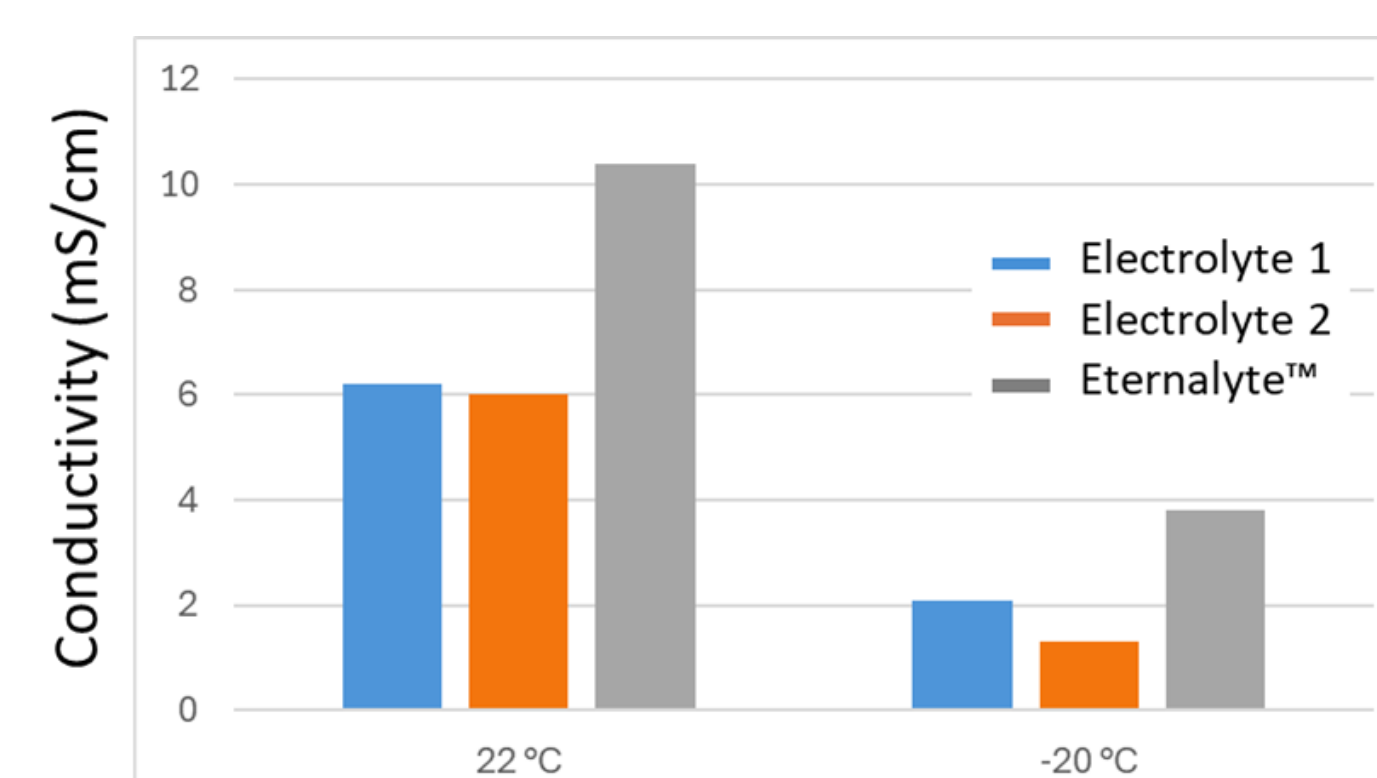
Eternalyte™ is a transformative new electrolyte for Li-metal batteries which enables significant improvements in cycle life, rate capability, and low-temperature performance.

### Charge Rate Capability

Eternalyte™ enables fast charging of lithium-metal cells, including at extreme current densities



### Low-Temperature Performance



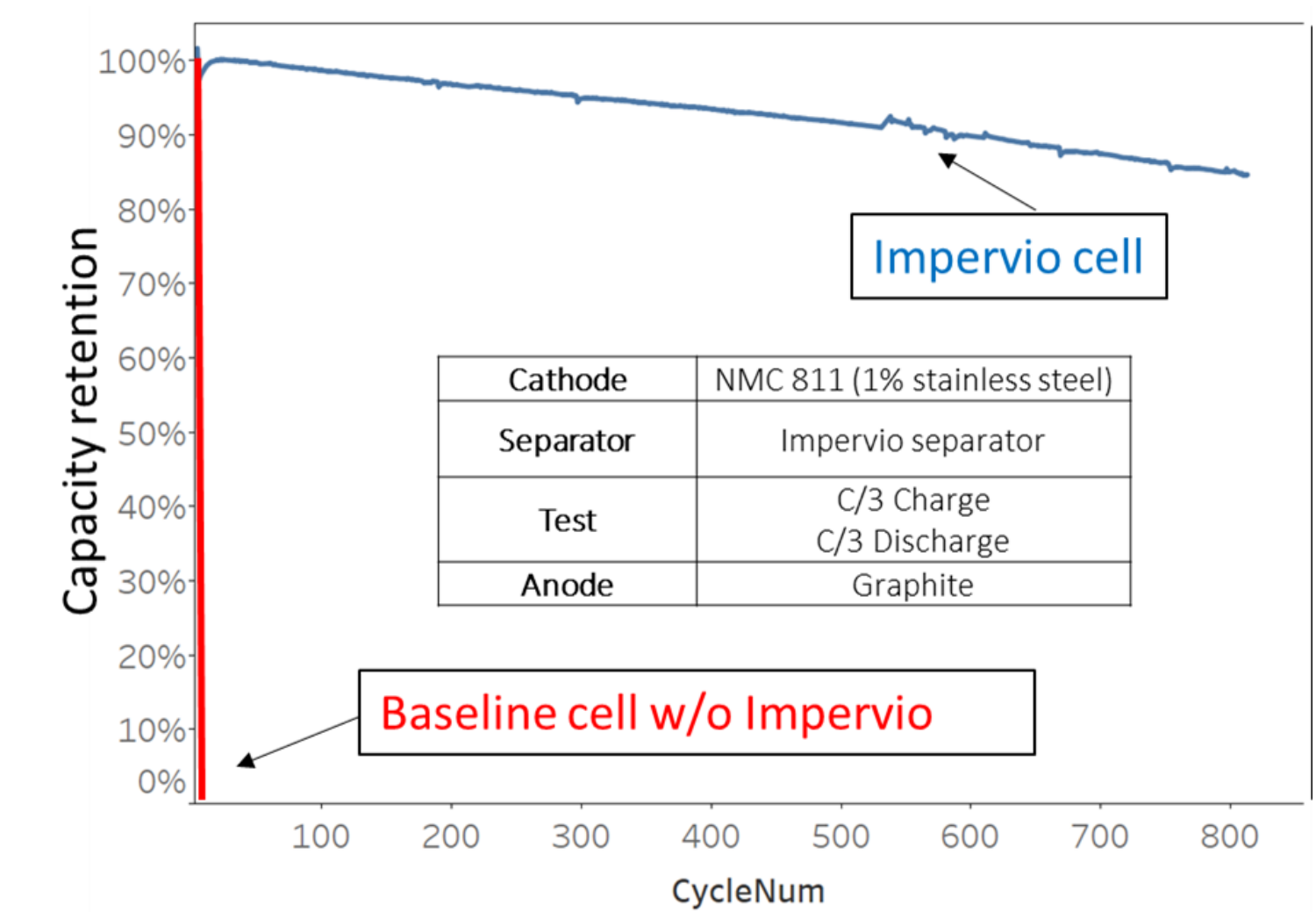
Eternalyte™ has excellent ionic conductivity, including at low temperatures

## Impervio™ Separator for Safety

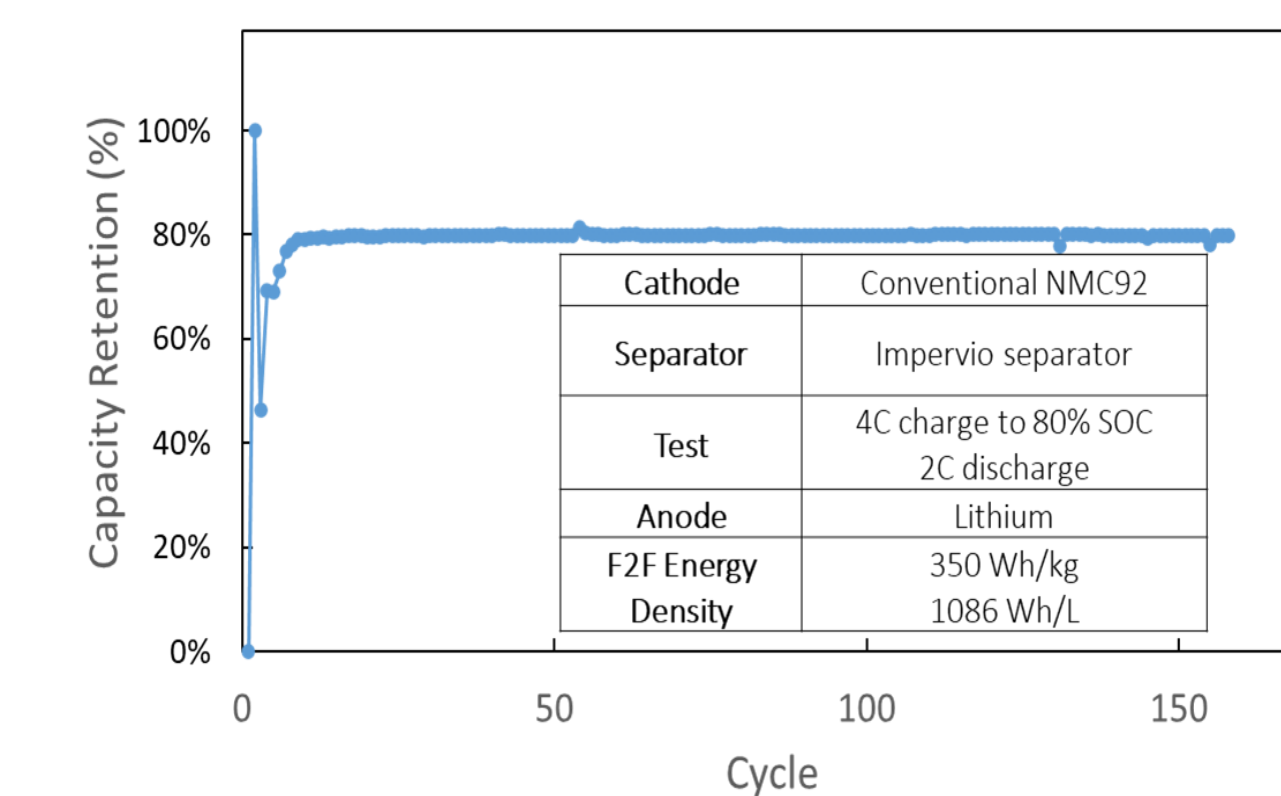
Impervio™ is a proprietary functional separator technology that provides a fail-safe approach to battery safety by:

- Dendrite prevention:** Starts at the source with a proprietary separator technology that impedes the growth of dendrites.
- Early fault detection:** Continuously monitors the cell and detects a potential short before it occurs and enables a safe discharge and shutdown of the individual battery cell.
- Integrates with lithium-metal and conventional lithium-ion batteries:** Offers the same safety benefits for conventional lithium-ion and lithium-metal cells as it does for 24M SemiSolid™ cells.

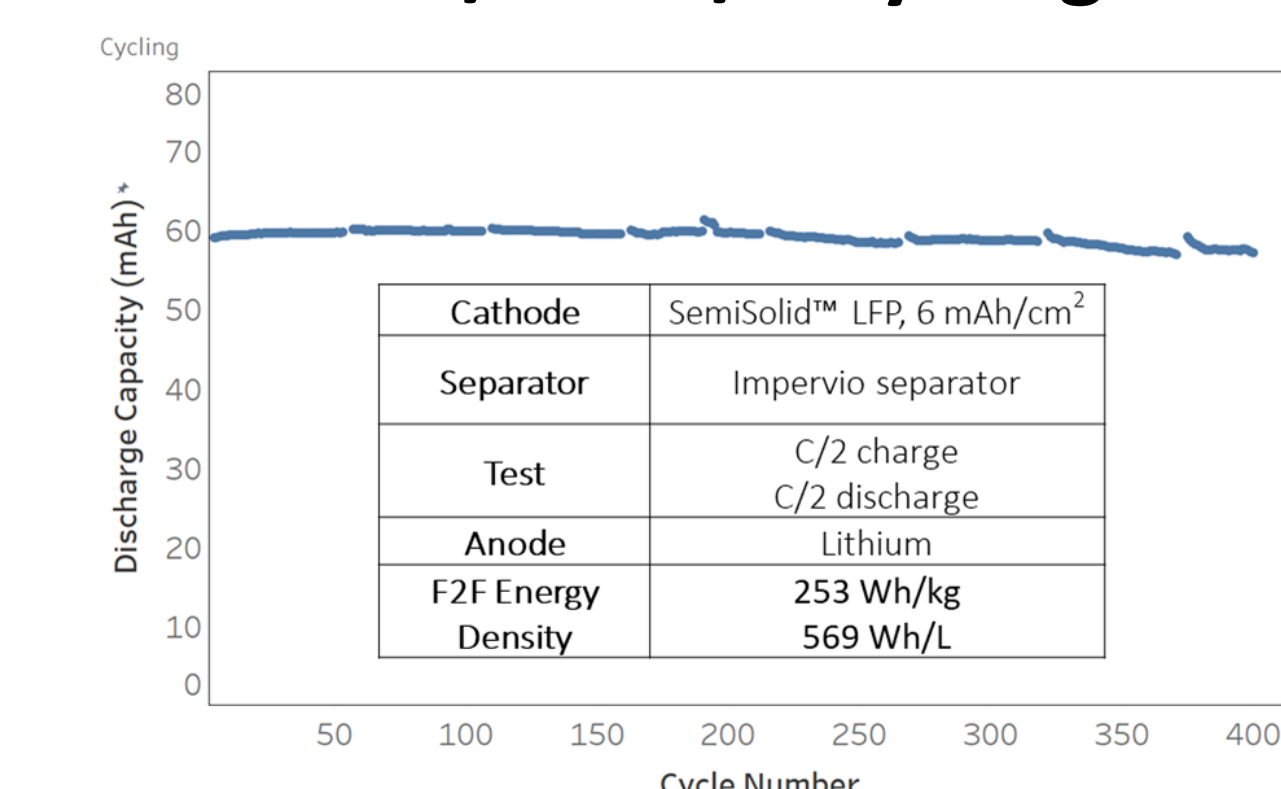
Impervio™ separator technology prevents shorting even in heavily contaminated cells



### Li/NMC Fast Charge Cycling



### Li/LFP C/2 Cycling



Impervio™, in combination with Eternalyte™ electrolyte enables stable cycling of lithium metal anodes, including under fast charge conditions.