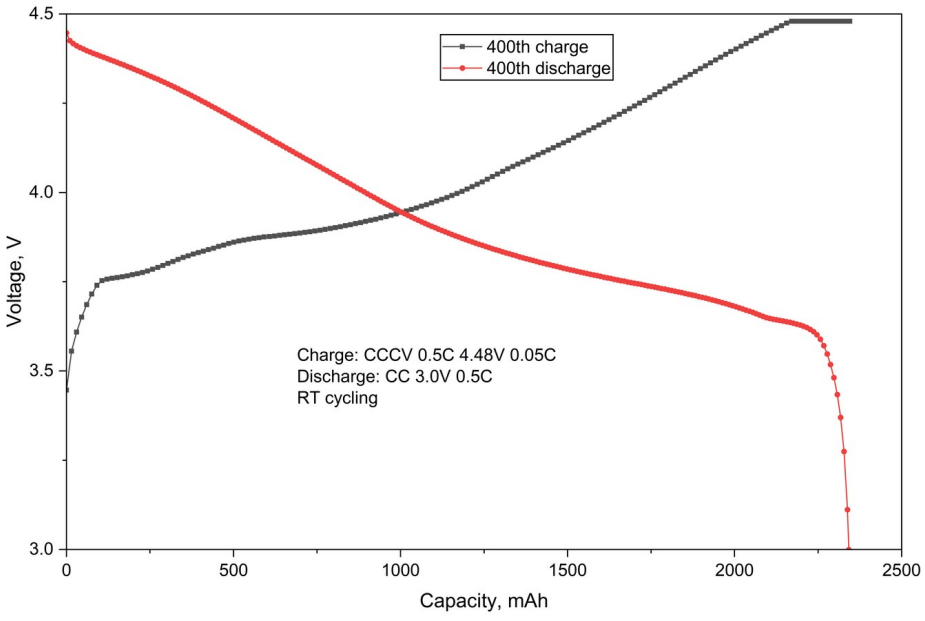
Broadbit Batteries Announces Strong Test Results for ProLion™ 3 Electrolyte in Commercial Pouch Cells

Helsinki, July 28, 2026

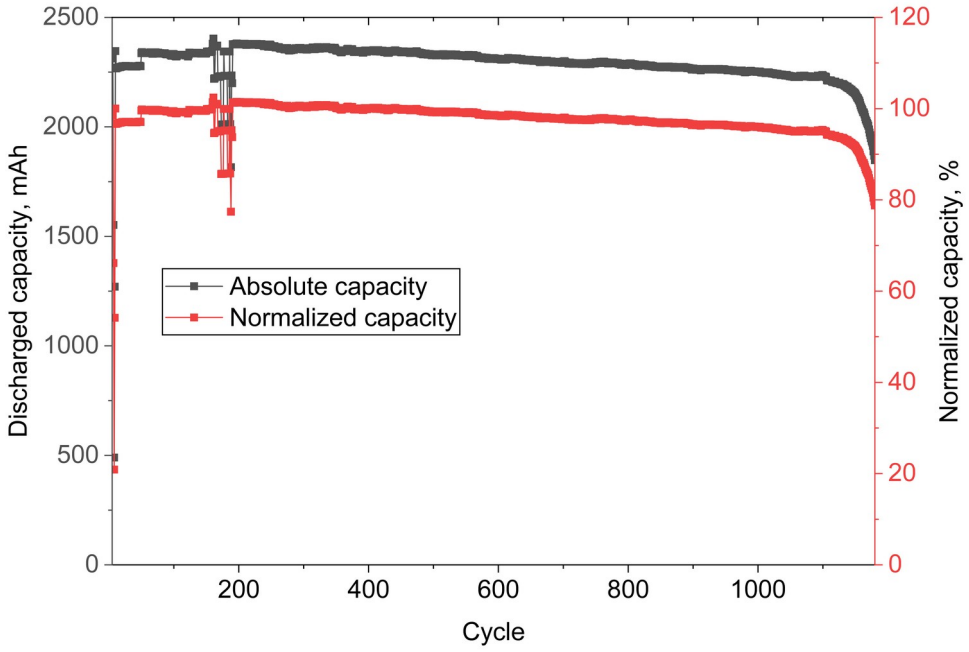
BroadBit Batteries has successfully completed initial testing of its ProLion™ 3 electrolyte in commercial pouch cells, delivering impressive and consistent performance metrics.

The tests were conducted using cells with a nominal capacity of 2350mAh and a specific energy of 250Wh/kg. The configuration involved LCO-Gr chemistry operating in the 4.48V-3.0V voltage range, with C/2-C/2 charge-discharge rates. A representative charge-discharge curve for one cycle is shown in Graph 1 below.



Graph.1. Charge-Discharge curve for LCO pouch.

Cycling tests demonstrated strong durability, with the cells achieving approximately 1,200 cycles until reaching 80% state-of-health (SOH), as illustrated in Graph 2.



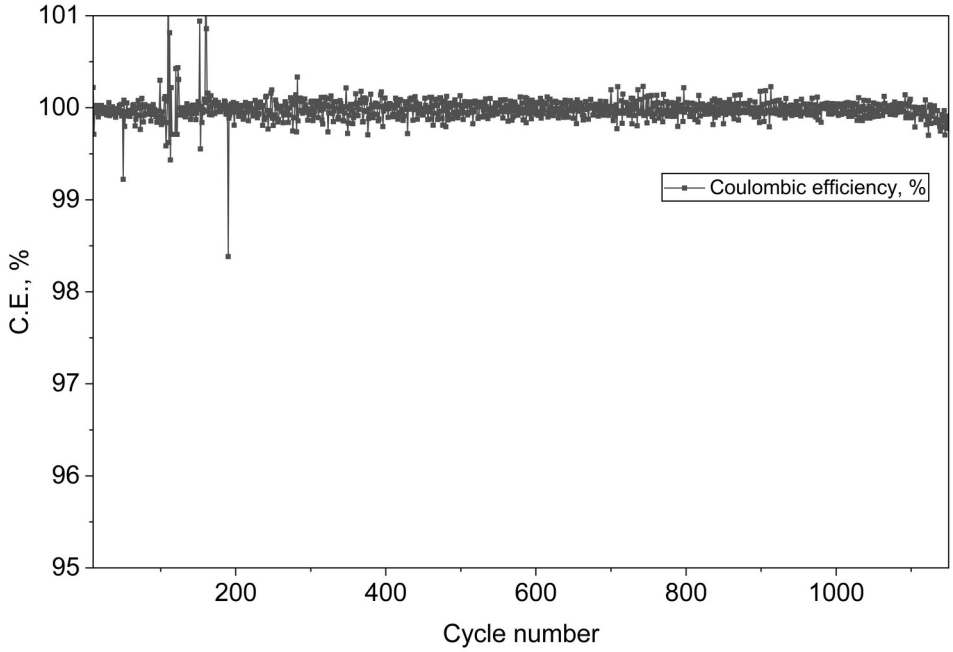
Graph. 2. Cycle retention.

This level of cycle life in commercial pouch cells at an elevated upper voltage limit of 4.48 V underscores the excellent stability provided by the ProLion™ 3 electrolyte. Lithium cobalt oxide (LCO) batteries are widely used in mobile phones and other portable consumer electronics. A cycle life of approximately 1,200 cycles to 80 % SOH substantially exceeds the typical requirements of these devices over their normal service life.

Particularly noteworthy is the exceptional Coulombic efficiency maintained throughout the entire cycling test, which remained at 100% throughout the entire cycling test, as depicted in Graph 3.

This indicates the near-complete absence of side electrochemical reactions involving the electrolyte. The observed cycling stability stems from the electrolyte's inherent stability, rather than from gradual consumption. ProLion™ 3 supports the formation of stable cathode-electrolyte interphase (CEI) and solid-electrolyte interphase (SEI) layers, contributing to reliable long-term performance.

The specific energy achieved in these tests is 250Wh/kg. The combination of such high specific energy, solid cycle life, and perfect Coulombic efficiency in commercial pouch cells represents a compelling performance profile. Looking ahead, Broadbit Batteries plans to advance its R&D by testing ProLion electrolytes with medium and high silicon content anodes to further evaluate stability. Updates will be shared as progress is made.



Graph. 3. Coulombic efficiency with cycling.

For more information, visit the Broadbit Batteries website or contact our team.

About Broadbit Batteries:

Broadbit Batteries develops novel battery and supercapacitor electrolytes and sodium battery technologies aimed at improving energy storage solutions for various applications.