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SINGLE-ION CONDUCTOR SALT ELECTROCHEMICAL CELL

PATENT NUMBER: EP3930047A1

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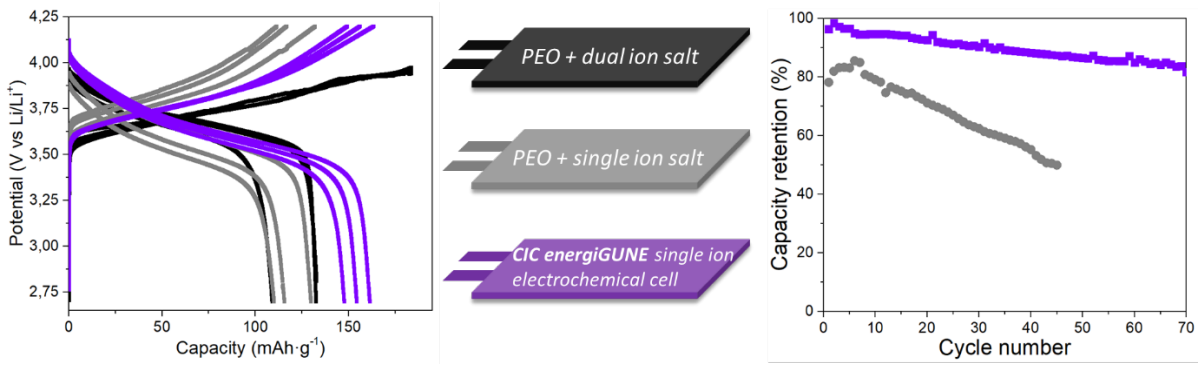
Poly(ethylene oxide) (PEO)-based electrolytes are the most common used in commercial Li-metal based solid state batteries (SSBs). However, its use with high-voltage positive electrodes remains a challenge due to the limited electrochemical stability of PEO.

Researchers at CIC energiGUNE have developed a solid-state battery including two different polymer electrolytes, one as solid polymer electrolyte (SPE), and the other as solid polymer catholyte (SPC; electrolyte within the cathode). The SPE is a polymer compatible with Li-metal, while the SPC is suitable for high-voltage active materials. The combination of both polymers on the same device is only feasible using a single-ion conducting salt.



ADDED VALUE

- ✓ Possibility of combination of different polymers in the same electrochemical device
- ✓ High voltage operation is enabled

APPLICATION OF THE TECHNOLOGY

- ✓ Li metal polymer batteries
- ✓ Post lithium solid-state batteries

LICENSING CONTACT

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