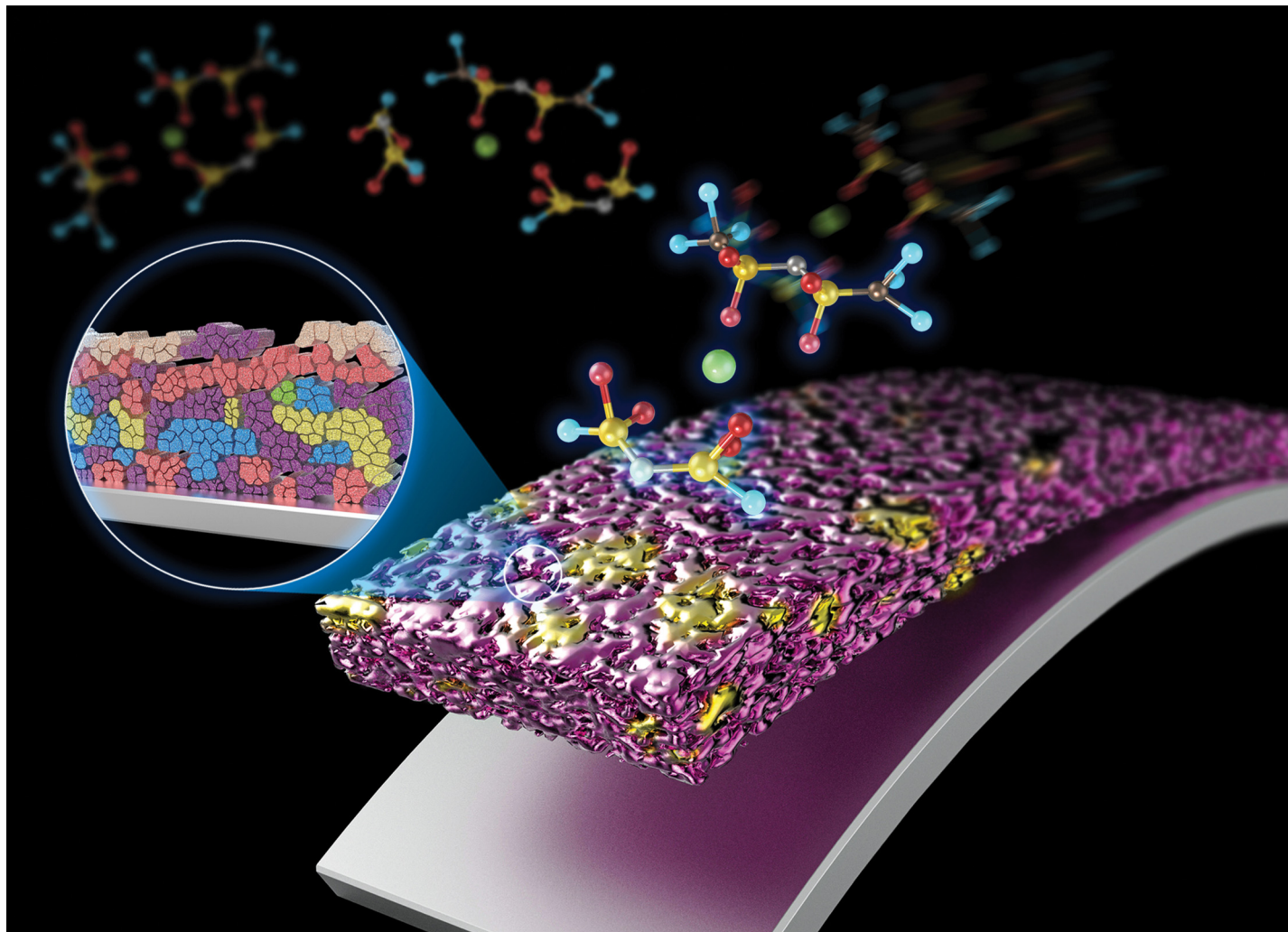




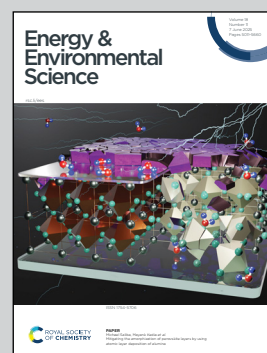
**Showcasing research from Professor Jeeyoung Yoo's laboratory, School of Energy Engineering, Kyungpook National University, Daegu, Republic of Korea.**

**Dual-anion ionic liquid electrolytes: a strategy for achieving high stability and conductivity in lithium metal batteries**

This study introduces a dual-anion locally concentrated ionic liquid electrolyte (D-LCILE) combining  $\text{TFSI}^-$  and  $\text{FSI}^-$  with a diluent, achieving high ionic conductivity, stable  $\text{LiF}$ -rich SEI, and uniform lithium deposition. Full-cell tests showed >99.9% Coulombic efficiency and 99.93% capacity retention over 200 cycles, demonstrating excellent performance in lithium metal batteries.

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**As featured in:**



See Jeeyoung Yoo *et al.*, *Energy Environ. Sci.*, 2025, **18**, 5277.