

EES Catalysis

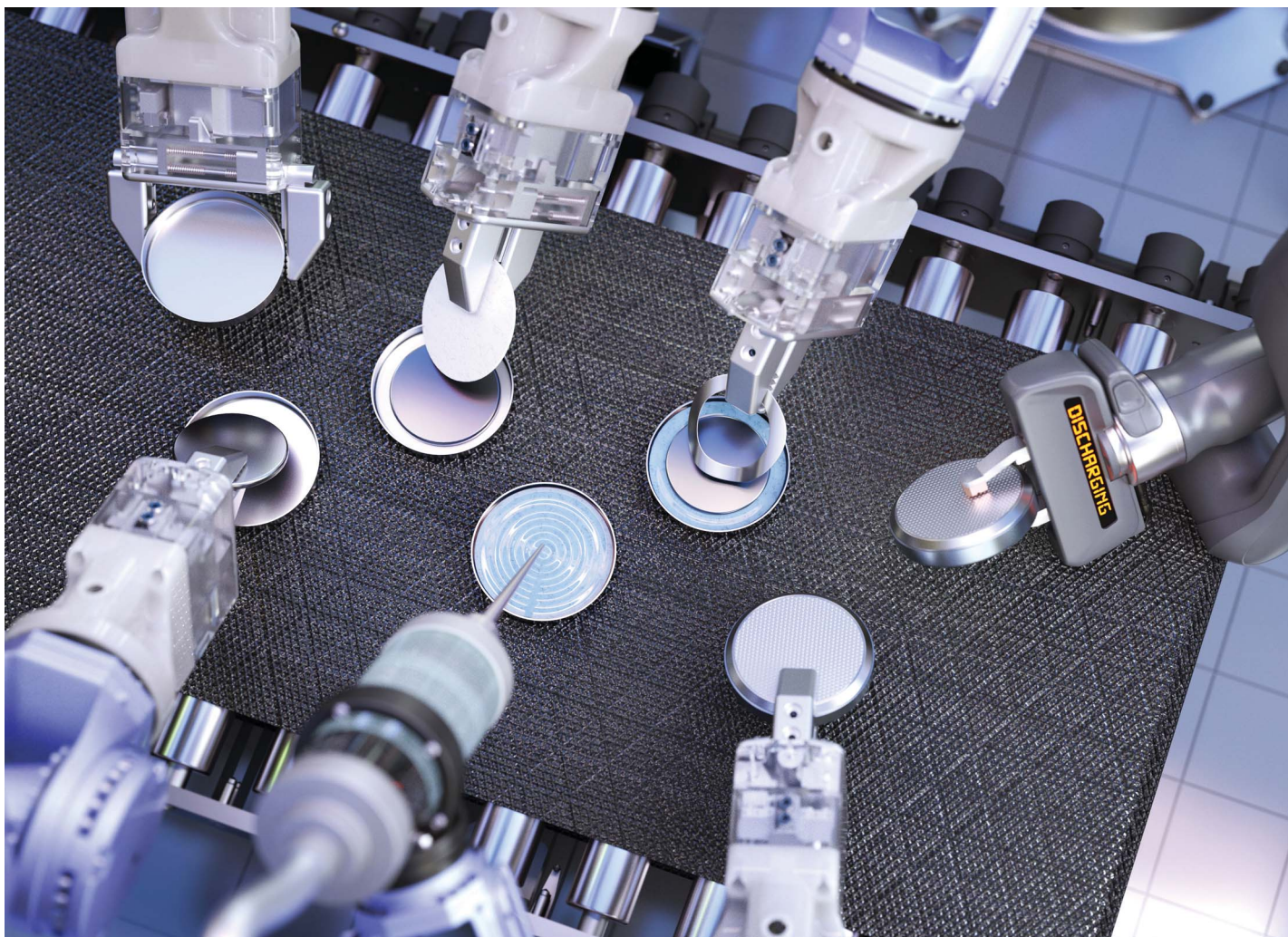
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Fundamental questions
Elemental answers



Showcasing research from Professor Dong-Hwa Seo's laboratory, Department of Materials Science and Engineering, Korea Advanced Institute of Science and Engineering, Daejeon, Republic of Korea.

ALBATROSS: a robotised system for high-throughput electrolyte screening *via* automated electrolyte formulation, coin-cell fabrication, and electrochemical evaluation

ALBATROSS is an automated platform that integrates electrolyte formulation, coin-cell assembly, cycling, and impedance evaluation within an argon-filled glovebox. It enables high-throughput screening of liquid electrolytes by automatically assembling and testing multiple cells with high reproducibility. The system combines robotic handling, PLC-based control, and OPC UA communication to coordinate parallel operations and data acquisition. By generating large, consistent datasets, ALBATROSS facilitates systematic exploration of electrolyte systems and accelerates the development of next-generation battery materials.

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As featured in:



See Dong-Hwa Seo *et al.*, *Digital Discovery*, 2026, **5**, 1522.