

electrode materials Advanced battery

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Conventional electrode materials for Li-ion batteries struggle in meeting the growing demand for high-performance, sustainable batteries that support electrification and renewable integration.

At INL, advanced electrode materials are engineered to overcome these limitations, enabling high-performance Li-ion batteries and next-generation post-Li battery technologies.

These novel materials enhance energy density, charging speed, and lifespan, tackling key constraints of traditional battery systems while limiting the use of critical raw materials.

+ Key Benefits:

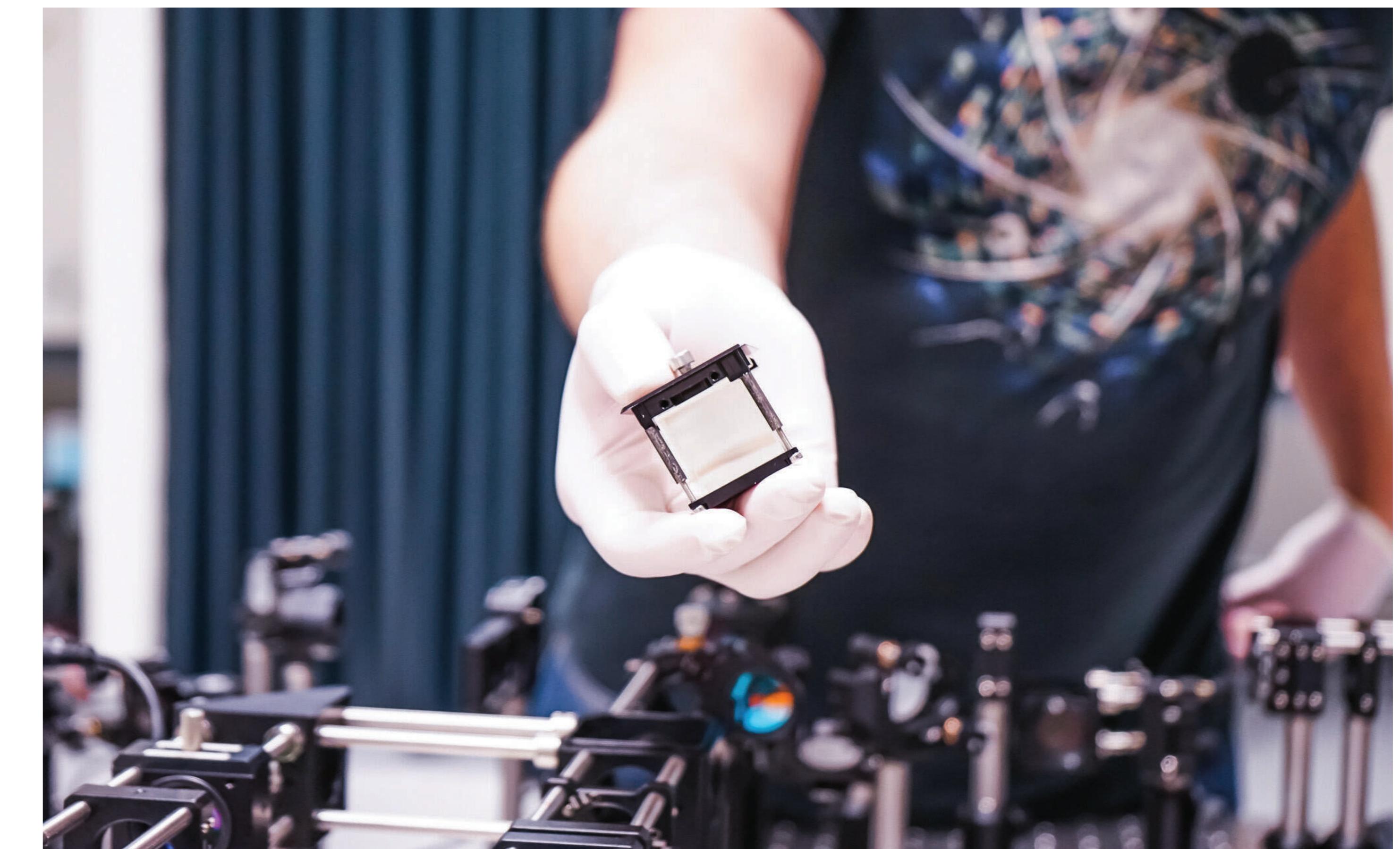
- Higher energy density for extended range and performance
- Faster charging capabilities
- Longer lifespan for improved reliability
- Sustainable materials aligned with EU green objectives
- Compatibility with current battery manufacturing processes

+ Suggested Applications:

- Electric mobility (EVs, e-bikes, and beyond)
- Grid-scale energy storage systems
- Renewable energy integration
- High-performance portable electronics
- Advanced battery packs for industrial applications



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