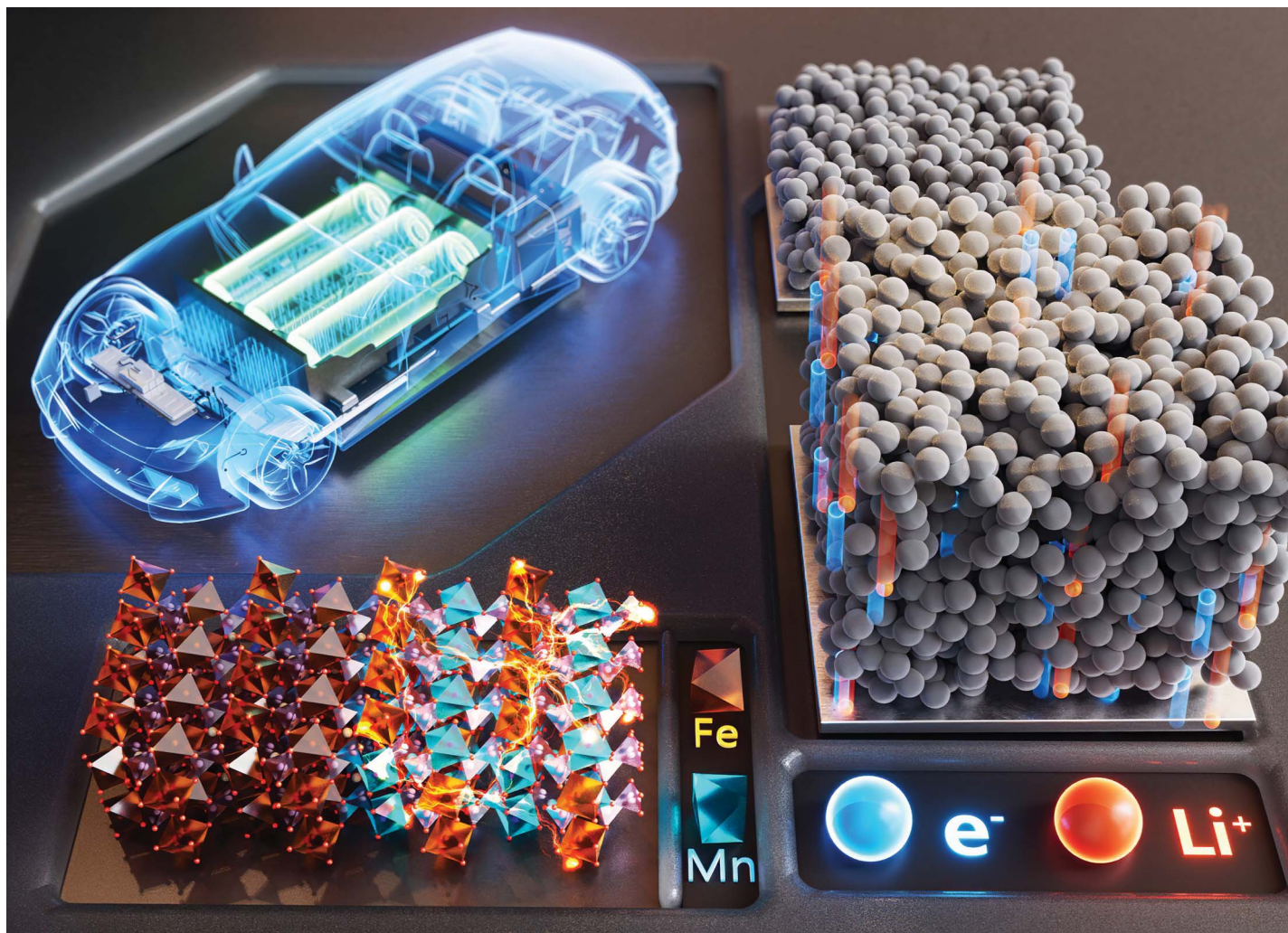


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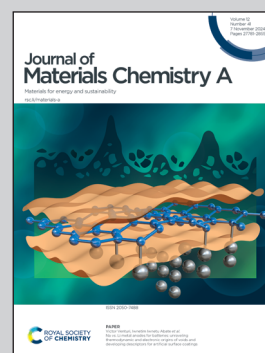


Showcasing research from Dr. Jungjin Park's laboratory, Energy Storage Research Center, Korea Institute of Science and Technology (KIST), Seoul, Republic of Korea.

Unveiling olivine cathodes for high energy-density lithium-ion batteries: a comprehensive review from the atomic level to the electrode scale

This review article provides specific insights into the development of high-energy-density olivine cathodes. It highlights atomic-level modifications, such as manganese substitution for iron, and electrode-level fabrication techniques, such as the use of thick electrodes. Furthermore, it addresses issues like kinetic limitations, including low electronic and ionic conductivities and mechanical instability, which often arise in thick electrodes. By demonstrating comprehensive strategies from the atomic to the electrode level, this study aims to present new guidelines for the design of high-energy-density olivine-based cathodes.

As featured in:



See Chunjoong Kim, Jungjin Park *et al.*, *J. Mater. Chem. A*, 2024, 12, 27800.