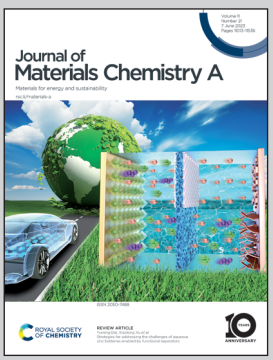
Showcasing a cooperative research from Dr. Hung-Ju Yen's group, Institute of Chemistry, Academia Sinica and Professor Guey-Sheng Liou, Institute of Polymer Science and Engineering, National Taiwan University.

Redox-active polynaphthalimides as versatile electrode materials for high-voltage, high-rate and long-cycle-life organic Li-ion batteries

This work reports triphenylamine-based polynaphthalimides that can be fabricated as cathodes, anodes, and binders in lithium-ion batteries, simultaneously. The mechanistic studies revealed that the outstanding electrochemical performance of polynaphthalimide electrodes is highly related to the proper structural design thus fine-tuning their activation energy and charge-stored behavior as well as cycling stability. This work offers new opportunities for the development of various high-performance multifunctional energy storage systems for a wide range of applications.

As featured in:



See Guey-Sheng Liou, Hung-Ju Yen *et al.*, *J. Mater. Chem. A,* 2023, **11**, 11210.

ROYAL SOCIETY OF CHEMISTRY

rsc.li/materials-a

Registered charity number: 207890