



Showcasing research from Professor MacFarlane's laboratory, School of Chemistry, Monash University, Melbourne, Australia.

Sustainable materials for renewable energy storage in the thermal battery

Thermal battery technologies offer a sustainable solution to the storage and distribution of renewable energy. Crucial to this technology is the development of stable and sustainable phase change materials that can isothermally store energy in the latent heat of their melting transitions. This work studies five aliphatic dicarbamate phase change materials for their use in this application. The two most promising materials perform well in thermal stability and sustainability assessments, indicating their promise to facilitate long-term storage in highly efficient thermal batteries. Part of this image was AI-generated using Midjourney.

As featured in:



See Karolina Matuszek,
Douglas R. MacFarlane *et al.*,
RSC. Sustainability., 2023, 1, 470.