



Showcasing research from Professor Xinlong Tian's laboratory, State Key Laboratory of Tropic Ocean Engineering Materials and Materials Evaluation, Hainan University, Haikou, China.

Interlayer chemical confinement enables highly reversible and durable lithium-chlorine batteries

This work studied confined space in the MXene interlayer, which effectively suppresses Cl_2 escape and lowers the LiCl nucleation barrier to achieve uniform deposition. Fast Cl_2/LiCl conversion kinetics enable rechargeable Li- Cl_2 batteries to operate at $-60\text{ }^\circ\text{C}$

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See Jinlin Yang, Xinlong Tian *et al.*, *Energy Environ. Sci.*, 2026, **19**, 2184.