

Environmental Science: Atmospheres

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Fundamental questions
Elemental answers



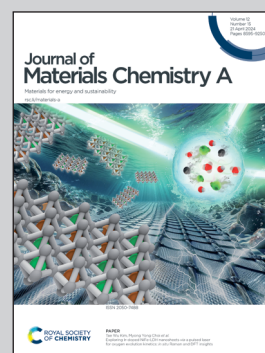


A research team led by Professor Jun Kang of the National University of Korea introduces their research on carbon black doped with tungsten carbide nanoparticles produced using a plasma method in solution.

Carbon-metal complex as a functional material that governs the efficient conversion of Li_2CO_3 to $\text{LiOH}\cdot\text{H}_2\text{O}$

A solution is needed to effectively respond to price fluctuations in lithium precursors due to the continued increase in demand for lithium-ion batteries. In this study, a method for energy-efficient conversion of lithium carbonate to lithium hydroxide is proposed. By heat-treating carbon black doped with tungsten carbide nanoparticles together with lithium carbonate, lithium carbonate can be easily converted to lithium hydroxide. This requires less energy than the traditional Carbothermal method and has a significantly higher conversion rate.

As featured in:



See Jun Kang *et al.*,
J. Mater. Chem. A, 2024, **12**, 8718.