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Showcasing research from Professor Ah-Hyung Alissa Park's laboratory, Dept. of Earth and Environmental Engineering, Columbia University, New York City, United States of America.

Hybrid thermo-electrochemical conversion of plastic wastes commingled with marine biomass to value-added products using renewable energy

Marine plastic wastes commingled with biomass are one of the biggest environmental challenges in the oceans and coastal areas. These mixed marine wastes have no economic value and are harmful to ocean ecosystems. Its presence also promotes the formation of microplastics which degrade and enter food supply chains. In this work, we have developed a novel hybrid thermo-electrochemical conversion technology that upgrades plastic wastes mixed with marine biomass to carbon-free bio- H_2 , purified polymeric materials, and carbon nanotubes, effectively turning waste into value-added products and energy carriers.

As featured in:



See Ah-Hyung Alissa Park *et al.*,
Energy Environ. Sci., 2023, **16**, 5805.