

Turning Waste PET into Energy Storing Materials

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Categories:

- Chemical Engineering
- Materials and Manufacturing

Keywords:

- Batteries
- Chemical Engineering
- Cost Efficient
- Energy Production
- Energy Storage
- Materials and Manufacturing
- Molecules
- Polymers
- Rechargeable
- Transportation

Researchers at Purdue University have developed a novel method for converting polyethylene terephthalate (PET) waste into rechargeable batteries. Currently, similar processes of repurposing PET take a long time and can create extra waste while breaking down plastics. The Purdue University approach uses microwave irradiation to degrade PET in just sixty seconds in the presence of ethylene glycol and sodium hydroxide. The resulting products are the monomers of PET, which can be easily integrated for energy storage and production applications.

Advantages:

- Fast
- Strong electrochemical properties
- Reuses material waste

Potential Applications:

- Energy storage
- Transportation
- Electronics

People:

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Intellectual Property:**Application Date:** (None)**Type:** Provisional-Patent**Country of Filing:** United States**Patent Number:** (None)**Issue Date:** (None)**Contact OTC:**

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