

# Depleted uranium energy storage flywheel





## Overview

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Can uranium rechargeable batteries transform nuclear waste management?

The Japan Atomic Energy Agency has developed the world's first uranium-based rechargeable battery. "We successfully developed a rechargeable battery using uranium as an active material," said the institute in a press release. This could transform the management of nuclear waste and address the growing need for efficient energy storage capabilities.

Can uranium make a rechargeable battery?

Scientists create a rechargeable battery using depleted uranium, converting nuclear byproduct into a valuable energy storage resource.

Could depleted uranium help reduce wind and solar inconsistency?

Researchers in Japan developed a battery utilizing depleted uranium that could help mitigate the inconsistency of wind and solar. It seems like something right out of Doc Brown's garage in *Back to the Future*: a rechargeable battery made with depleted uranium. But that's exactly what researchers in Japan have built.

What is depleted uranium?

Approximately 16,000 ton of the remaining uranium-238, known as depleted uranium, has accumulated in Japan as a waste material because of the storage space and costs involved. To make efficient use of this depleted uranium, the research team worked on developing a redox flow battery that uses uranium as the active material.



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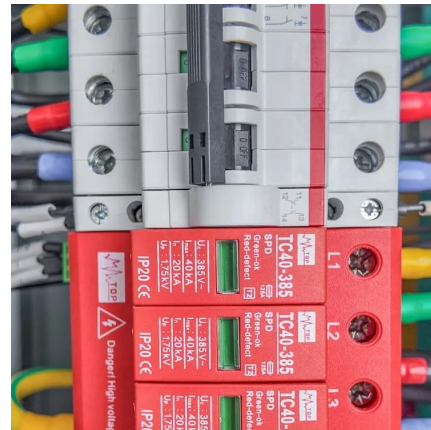


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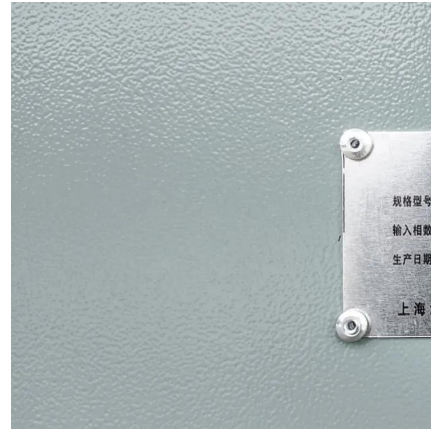


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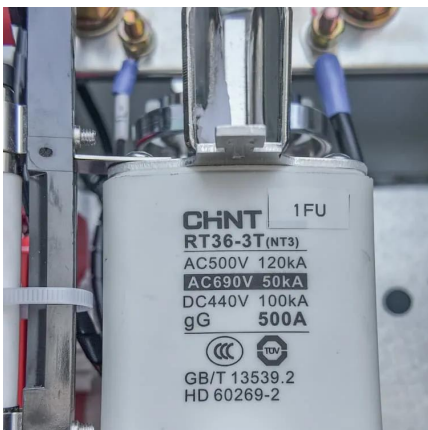
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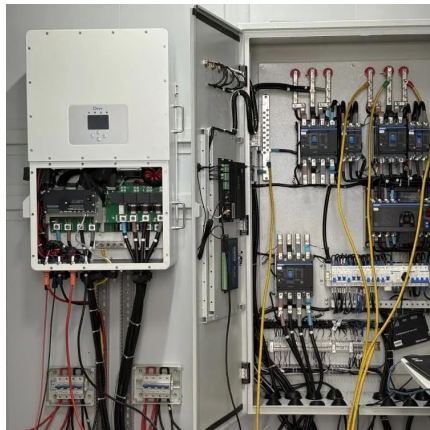
Apr 21, 2025 · A research team including Assistant Principal Researcher Kazuki Ouchi, Researcher Katsuhiko Ueno, and Senior Principal Researcher Masayuki Watanabe of the NXR ...





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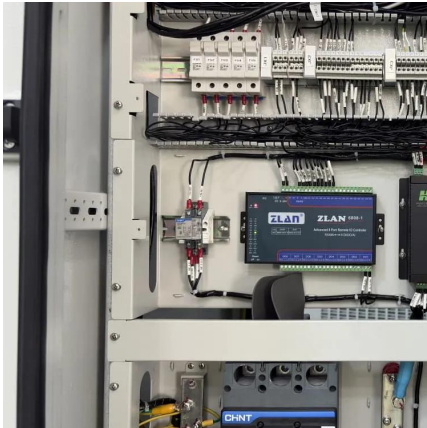
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