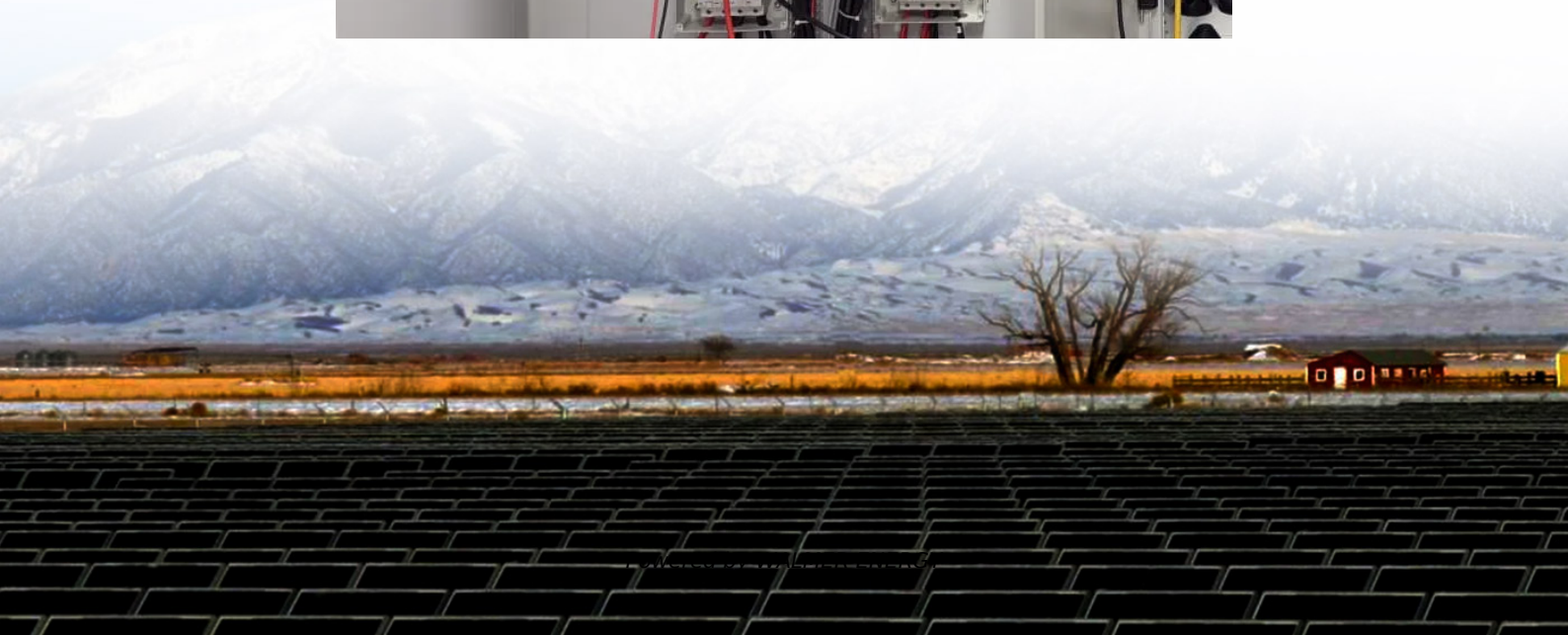


The thinnest solar panel





Overview

Are thin-film solar cells scalable?

MIT researchers have developed a scalable fabrication technique to produce ultrathin, lightweight solar cells that can be stuck onto any surface. The thin-film solar cells weigh about 100 times less than conventional solar cells while generating about 18 times more power-per-kilogram.

Could ultra-thin solar panels be more efficient than conventional solar panels?

Scientists in Germany have engineered a major leap forward in solar panel design by devising plans for ultra-thin solar panels that are up to 1,000 times more efficient than conventional silicon models. The key is a new crystal-layering technique that could drastically change how we harvest energy from sunlight.

Are solar cells scalable?

MIT researchers developed a scalable fabrication technique to produce ultrathin, flexible, durable, lightweight solar cells that can be stuck to any surface. Glued to high-strength fabric, the solar cells are only one-hundredth the weight of conventional cells while producing about 18 times more power-per-kilogram.

Are ultrathin solar cells scalable?

But these ultrathin solar cells were fabricated using complex, vacuum-based processes, which can be expensive and challenging to scale up. In this work, they set out to develop thin-film solar cells that are entirely printable, using ink-based materials and scalable fabrication techniques.



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