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## Oil-and-water 'self-assembly' approach to create solar cells quickly

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Researchers from the University of Minnesota have hit upon a new method that involves self-assembling of small solar



components to create solar cells that would make them cheaper in production. They propose to gild individual solar cell elements – silicon and gold – in a two dimensional sheet with oil/water mix. When the blank solar cell passes through a boundary that separates water-loving molecules from the water-hating ones, the elements pop into place. Using this method, it took just three minutes to assemble a 64,000-component device.

Initially, the researchers weren't able to coax the components into places properly and that was majorly attributable to non-responsive gravity. Later, they banked on a two dimensional plane which was fairly successful. Now adopting this method, the researchers hope to produce everything from solar cells to slim video displays to ultra-small semiconductors.

The work was published in Proceedings of the National Academy of Sciences.

Via: [BBC](#)

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