

《新技术能用雨滴发电，1滴雨点亮100个灯泡？》

Tapping into the water cycle and generating electricity from rainy days could be one way to grow our renewable energy use.

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Until now, scientists have been unable to get water droplets to produce a significant amount of power - but we may finally have a breakthrough.

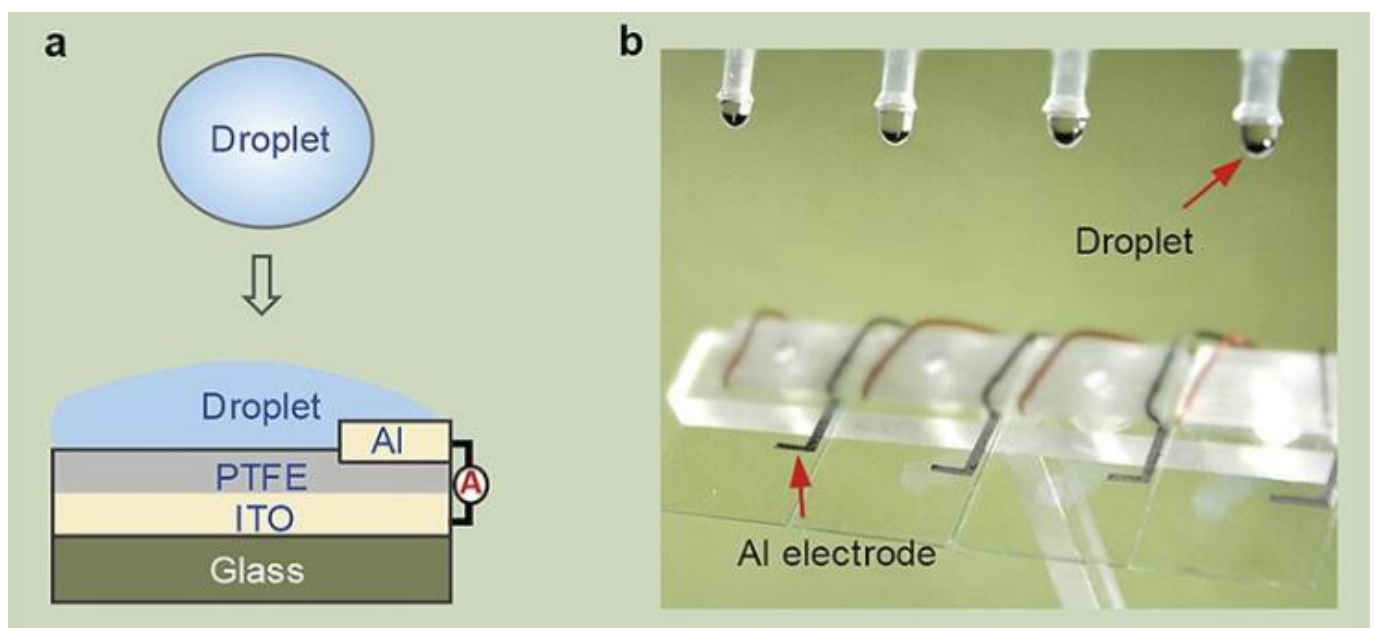
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While we're still a long way from umbrellas that double up as generators, the latest approach shows there might be a way to get power from rain showers at a level of efficiency that makes these systems practical.

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New research has found a method that could generate enough power from a single droplet of rain to light up 100 LED bulbs. That's a big jump forward in efficiency, in the region of several thousand times.

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(Wanghui et al., Nature, 2020)

"Our research shows that a drop of 100 microlitres of water released from a height of 15 centimetres [5.9 inches] can generate a voltage of over 140V, and the power generated can light up 100 small LED lights," says biomedical engineer Wang Zuankai from the City University of Hong Kong (CityU).

“100微升的水从15厘米(5.9英寸)的高度释放，可以产生超过140V的电压，产生的功率可以点亮100个小LED灯。”

That sounds like a surprising amount of voltage, but the engineers used some ingenious tricks to make it happen.

听起来电压令人惊讶，但工程师们使用了一些巧妙的技巧来实现它。

Scientists have been looking into this type of power production for years, but the physics of converting the energy of raindrops into electricity are much harder to do than harvesting the energy from a rising tide or a flowing stream.

科学家们一直在研究这种类型的电力生产，但将雨滴的能量转化为电力的物理过程比从涨潮或流动的河流中 harvesting 能量要困难得多。

There's plenty of work still to do to get this ready for practical use however, with the researchers hoping to have a prototype ready in the next five years.

然而，仍有大量工作要做，以便为实际应用做好准备，研究人员希望能在未来五年内准备好原型。

