

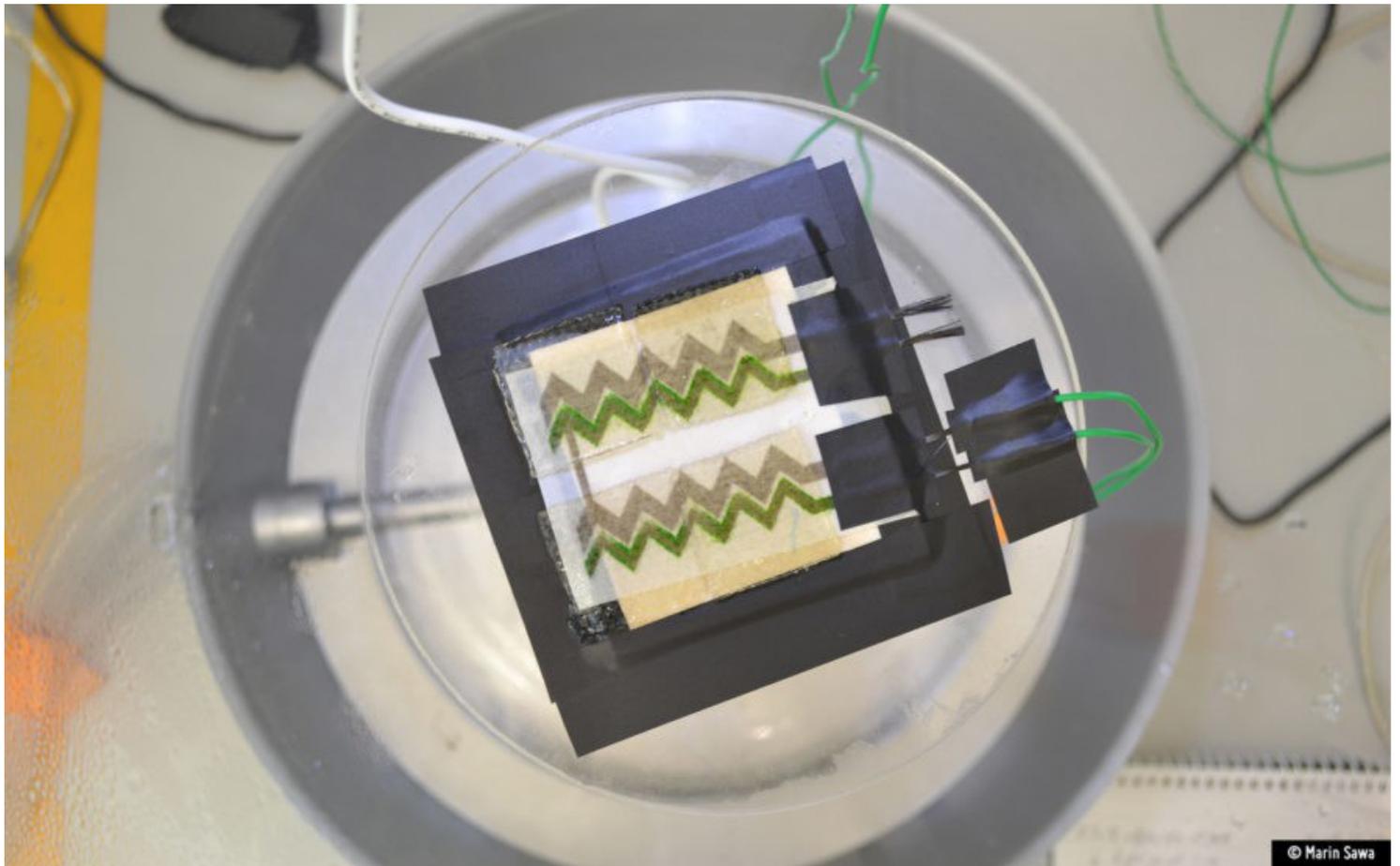
[urbanscrawldcblog](#)



The Urban Real Estate Digest of Washington DC

December 4, 2017 / Featured / [Uncategorized](#) [INTERIOR DESIGN](#)

THE WALLS MIGHT NOT TALK, BUT THEY'RE ALIVE: PHOTOSYNTHESIZING WALLPAPER



© Marin Sawa



If you missed the memo, please refer to [a past post \(https://urbanscrawldc.com/2017/06/12/not-your-grandmas-wallpaper-where-to-buy-todays-trends/\)](https://urbanscrawldc.com/2017/06/12/not-your-grandmas-wallpaper-where-to-buy-todays-trends/), but I can catch you up to speed in a sentence: Wallpaper is, like, so in. For a minute (or a decade) or so, we painfully peeled it off the insides of our homes and turned up our noses while we stuck to more neutral décor, like simple paint, but now...it's back and better than ever. Not only is bold, retro-inspired wallpaper back on-trend for interior design, but also the decorative staple has also somehow found itself at the forefront of scientific discovery. Yeah, you read that right.

You might have gotten goosebumps on your skin or found yourself in the throws of a heebie-jeebies type attack if you've ever had nightmares about *if the walls could talk*. Thankfully, they can't – but that doesn't mean they can't be made to be living, breathing things... with the right wallpaper. Scientists from Imperial College London, Cambridge, and Central Saint Martins have recently made wallpaper that is made of living bacteria.

As described on Fast Co., the scientists banded together to figure out “how to use an inkjet printer to print photosynthesizing bacteria onto paper, effectively creating a new way to turn microbes into a living power bank.” The bacteria they have been able to produce and use (by using conductive ink) is called cyanobacteria, which are a type of microorganism that has existed on Earth for millions of years, just never on the print of a wall decoration.

The game, as you might have guessed, is bigger than unique wall décor. These scientists are looking for conspicuous ways that bacteria can help everyday living. One potential use case would be as a (small) source of energy. The bacteria are able to harness energy from light via photosynthesis. The special conductive ink used is then able to transfer the energy collected from bacteria into something useful...for instance, enough energy to power a small digital clock.

And while keeping your alarm running reliably is certainly ideal, researchers have bigger plans for the applications of the wallpaper even still. As reported on *Mental Floss*, “It could be used to monitor indoor air quality by powering sensors; in health care settings, small samples could monitor patients with conditions like diabetes. If enough energy could be harvested, it might be able to power larger devices or even charge phones – all of it disposable and biodegradable.”

This cutting-edge take on renewable energy could absolutely bring benefits to the table in a variety of different use cases, ranging from in the everyday home to larger, commercial applications. Currently, the paper has only been created on a small scale – about the size of a palm. Since the proof-of-concept has been successful, the team will next seek out to scale up their efforts and explore the potential electrical output over a larger area. As put by Professor Christopher Howe, a co-author from the Department of Biochemistry at the University of Cambridge, “The challenge now is to make panels that are more powerful, long-lasting, and robust.”

Move over, funky florals...

Tags: [Science](#) [Sustainable Design](#) [Technology](#) [INTERIOR DESIGN](#) [Wallpaper](#)
[Renewable Energy](#)