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Paper power ends the need for batteries

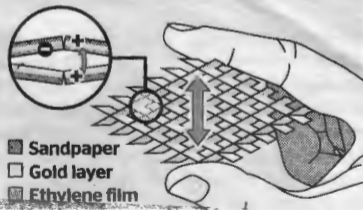
Oliver Moody Science Correspondent

Heart monitors, hearing aids and even remote controls can be powered solely by the movements of the body using a new device slender enough to be carried around in a wallet.

Scientists at the National Centre for Nanoscience and Technology in Beijing have built a self-charging sandwich of folded paper, called a triboelectric nanogenerator, that can harvest and

How it works

Press and release movement causes charge to build in layered paper



store electricity as its components are rubbed together while its owner walks around. The breakthrough could end the need for batteries.

Research published in the journal *ACS Nano* shows that the feat can be pulled off with a layer of paper coated in gold and a Teflon-like polymer trapped inside gold and graphene-lacquered sandpaper. Several of the sheets are combined into a lattice inspired by the Japanese art of kirigami.