

Voice-based phone recharging

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Image credit: Vagamundos/Flickr

(PhysOrg.com) -- The noise that we produce can be a lot of things. It can be a valid means of communication. It can be an annoyance when you are trying to get to bed at night. It can be a migraine waiting to happen, and depending on who you ask, it can even be a form of pollution. But, could that annoying loud man next to you on the subway, or your can't keep it down neighbors TV, be a potential source of renewable-energy?

Sang-Woo Kim, a researcher at the Institute of Nanotechnology at Sungkyunkwan University in Seoul thinks that it just might be.

He is working in a field known as energy scavenging in which power is

made by the day-to-day life of humans. Other forms of scavenged energy include California's current proposal to grab vibrational energy from cars driving on the highways as a source of power. These types of innovation have the possibility to give us [renewable energy sources](#) that do not require putting up solar panels or [wind turbines](#) in areas where this type of construction may not always be possible.

You may be wondering how this sound-based technology would work. Well, the proposed technology would convert sound into the kind of energy that a phone can use by pairing the electrodes with strands of zinc oxide. When the noise comes at the phone, a pad designed to absorb the noise would capture it, and vibrate the phone (or other device in question), which would make the [zinc oxide](#) fibers expand and contract. It is this expanding and contracting that actually generates the power for the battery.

A current [prototype system](#) was able to convert 100 [decibels](#) of sound, the equivalent of city traffic, into 50 millivolts of power.

More information: chem.skku.edu/graphene/
via [Telegraph](#)

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