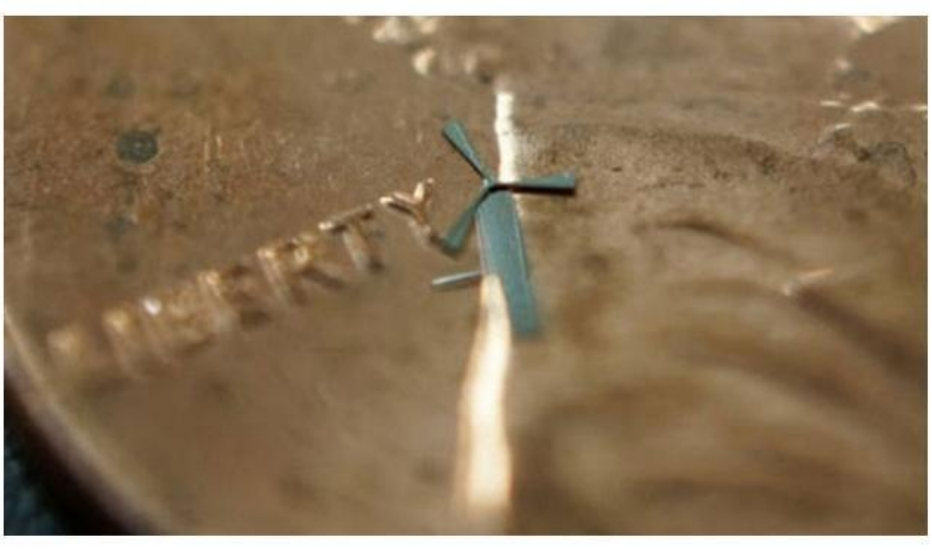


'Micro-windmills' could charge cellphones, inventors say

> *A 'micro-windmill' designed by researchers with the University of Texas at Arlington is shown on top of a penny. The device's designers say the windmills could be used in the future to charge cellphones or power homes. (University of Texas at Arlington)*
>
> ***Researchers in Texas have created a windmill so small it appears as a speck on the surface of a penny. But they say a multitude of the micro-machines, linked together, could someday generate enough energy to charge up a cellphone or a house.***
>
> *"Imagine your phone is out of battery, so you take out a sleeve that has 1,000 windmills on it and wave it in the air for a few minutes," said Jung-chih Chiao, an electrical engineering professor at the University of Texas at Arlington. "That could give you enough power to get by and send a message."*
>
> *The micro-windmill is only 1.8 millimetres at its widest point. As many as 10 of the tiny devices could fit on one grain of rice.*
>
> *Chiao, who designed the micro-windmill prototype with research associate Smitha Rao, said it was fabricated using nickel alloy components that are flexible and durable.*
>
> *The device was built using a subset of the micro-fabrication process for the tiny semiconductors used in everyday electronic circuits.*
>
> ***Origami principles used***
>
> *The windmills are then constructed from ultra-thin slices of semiconductor material known as a wafers.*
>
> *"A windmill is a three-dimensional structure, but the semiconductor fabrication technique is two-dimensional," Chiao told CBC News from Arlington.*
>
> *"So how do you do it? A simple way of thinking about this is like origami."*
>
> *Assembling windmills using tweezers and constructing them like gingerbread houses would be too difficult due to the micro-scale of the assembly, he said.*
>
> *"But with origami, sometimes you fold one side and the other side will stand up. We're using that kind of principle," Chiao said, adding that producing one micro-windmill would cost the same as making 1,000 because they would be on the same wafer.*
>
> *While the University of Texas team has not been able to disclose how much electricity was generated with the micro-windmill, because of a patent application that's still being filed, Chiao said the use of thousands of the windmills together could eventually provide enough power to run a household's security, communication and lighting systems.*

Continue Reading

#science #technology #wind power #tech #energy #wind mills #alternative energy #wind energy #micro

52 notes Posted 2 weeks ago

Shychemist

25, Canadian. This is my personal blog. Science is my passion I also posts lots of other things here.
Tags

My Science Blog

Follow These Science Blogs!

My photography blog

Piercings Blog (NSFW)


siriuslycrazy reblogged this from monsieurbowtie


aoz0ra reblogged this from acolderindigo


viaggiatoressa reblogged this from shychemist and added:

> *Amazing! :D*


lotusgw likes this


cherribean likes this


laughingmad likes this


onlycareboutwifi reblogged this from acolderindigo


acolderindigo reblogged this from shychemist


catmadeofwater reblogged this from megacosms

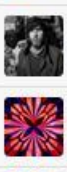
chinzillaaa likes this


aradiarue likes this


mexicanmarshmellowxd reblogged this from shychemist


mexicanmarshmellowxd likes this

radagast likes this

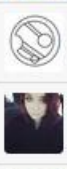

keebster reblogged this from zombifiedfallacy

keebster likes this


thekevinpaul likes this

sciencemouse likes this


the-majestic-plural reblogged this from monsieurbowtie


shelbymaas reblogged this from megacosms

elusivemusings likes this


mysticfaerytantrick likes this

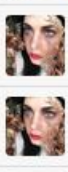

afghamistamm reblogged this from megacosms

chiaroscurourbino reblogged this from chiedegozaru

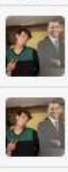

moonbeam4444 likes this


ars-astronomica likes this

xxxahoyxxx reblogged this from shychemist


xxxahoyxxx likes this

zombifiedfallacy reblogged this from 2muchscience4u


anticristosuperstar likes this

fuleao reblogged this from chiedegozaru


viaggiatoressa likes this

fraction-of-thee-universe reblogged this from shychemist

lifecolouredpurple likes this

caminosdeambrosias likes this

chiedegozaru reblogged this from shychemist

neurosciencenews likes this

options-erica reblogged this from megacosms

adreadlife likes this

sweetadeline112358 reblogged this from megacosms

sweetadeline112358 likes this

2muchscience4u reblogged this from shychemist

2muchscience4u likes this

monsieurbowtie reblogged this from shychemist

monsieurbowtie likes this

two-bit-no-good-jive reblogged this from megacosms

wishfull-wanderer reblogged this from megacosms

phannypants likes this

sirenspassby likes this

thedinte reblogged this from shychemist

thedinte likes this

megacosms reblogged this from shychemist

shychemist posted this