Graphene model - a crystalline structure in a hexagonal grid

GRAPHENE BATTERIES

2013 Nominet Trust 100 Winner

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2013

CREATING HIGH ENERGY AND NON-TOXIC BATTERY POWER.

By UCLA

Project URL: inquisitr.com/555843/graphene-batteries-offer-5-second-iphone-charging
Project Twitter: @UCLA

One To Watch

- Environment & Sustainability
- Physical Computing

Our technology is accelerating us towards an increasingly miniature, powerful and mobile future: and until recently, batteries have often been a necessity which has slowed us down. Earlier this year, however, researchers at UCLA announced they have developed a battery made from a revolutionary new material which could change everything.

Graphene, a single layer of carbon one atom thick, was first described in 1962 but only manufactured for the first time in 2004. Since then its remarkable properties – the "strongest material in the world", completely flexible, more conductive than copper – have presented scientists and engineers with an intoxicating range of possibilities.

In this case, the technique developed at UCLA offers the prospect of batteries which are inexpensive, non-toxic and incredibly efficient. They will mean you can charge your phone in five seconds, or a laptop in 30, while electric vehicles could run far longer than current vehicles and recharge in a fraction of the time. The graphene battery has the potential to power its very own wave of technical innovations.

Image 'Model of graphene structure' courtesy of CORE-Materials

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