S’pore edges ahead in graphene research

NUS centre working to harness the power of this super material for commercial use

Most graphene – the ingredient in Singapore used to make touchscreen protectors, clothing and even water-repellent fabrics – is used in the form of two-dimensional materials and could potentially be used in anything from solar cells to batteries. But how can you make artificial skin that’s soft and stretchy? Or a superconductor for medical imaging? Scientists have been trying to answer these questions for years, but now they think they have found a way to use graphene as a supercapacitor, which could one day be used to build better batteries.

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Professor Antonio Castro Neto, a recipient of the 2010 Nobel Prize in Physics, is leading a team of researchers at the National University of Singapore (NUS) working on graphene. The team is using graphene to create a new kind of flexible electronic device that could be used in future smartphone applications. They’ve already created a prototype of a flexible display that can be folded, and they’ve been working on ways to make it even more flexible.

Graphene, a material that is both strong and flexible, has the potential to revolutionize the electronics industry. It’s lightweight, durable, and can be used in everything from smartphones to solar panels. However, its use is limited because it’s too fragile to be used in electronic devices.

The team at the NUS centre is working on a new way to make graphene that is not only stronger but also more flexible. They’ve developed a new technique that allows them to make graphene that is both superconducting and superflexible. This breakthrough could lead to new applications for graphene in the future.

Graphene is also being used to create better batteries, which could help power electric vehicles and other devices. The team at the NUS centre is working on ways to make graphene-based batteries that are not only more powerful but also more efficient and longer-lasting.

In addition to its use in electronics, graphene is also being used in other applications, such as medical imaging and drug delivery. The team at the NUS centre is looking at ways to use graphene in these areas as well.

The future of graphene is bright, and the NUS centre is at the forefront of this exciting new field. With continued research and development, graphene could become a key component in many new technologies.