

Continuous Single Layer Graphene Materials Reinforcement

Disclosure Number

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Technology Summary

This invention demonstrates that a single graphene sheet (or a plurality of graphene sheets) can be used in variety of applications to reinforce already existing materials; the graphene can also be used as is. It is shown that graphene produced by chemical vapor deposition (CVD) has tensile strength exceeding best carbon fiber samples as well as other materials such as Kevlar. Graphene can be used to reinforce carbon fibers, polymers and other material. The graphene sheet can be used in various forms including a) Pure graphene scroll, b) Composite carbon sheets, c) Reinforced carbon fibers and scrolls, d) graphene polymer scrolls.

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