2D Materials : Graphene and Next Gen for Energy, EMI, Memories Applications

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Abstract

This contribution deals with the utilisation of 2D materials for a large panel of applications [1,2] using spray but also we will introduce some perspective in the field of the next gen of 2D materials showing exotic properties. We will discuss about the utilisation of mixtures of graphene and CNTs for energy related applications. We will discuss of the implementation of pseudo-capacitance to increase the energy storage exploding metal decoration in scaffolds of graphene/CNTs mixtures [3]. We will talk about the potential of MXenes using spray-gun deposition to increase the power delivering. We will also discuss of the applications in case of information storage using GO [4]. Finally we will talk about the next gen of 2D topological insulators [5] as a great opportunity of shifting the paradigm of thermoelectric materials with huge increase of zT factor compared to existing materials.



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