Editorial

Ian A. Kinloch¹

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This editorial was written on the 10th Anniversary of the Nobel Prize in Physics being awarded jointly to Professors Andre Geim and Konstantin Novoselov "*for groundbreaking experiments regarding the two-dimensional material graphene*". The intriguing combination of mechanical, electrical and thermal properties of graphene has led to the promise of improved materials for many applications. However, a significant challenge has been how to translate these extraordinary properties which are observed on the nanoscale to bulk, macroscale materials. Composites reinforced with graphene and related materials are considered one solution to this challenge, with work in the literature now covering polymeric, metallic and ceramic matrices. Research has moved on from the early studies that focused purely on the enhancement of mechanical properties or electrical conductivity, to cover other properties such as

tribology, gas barrier and fire retardancy. Furthermore, true multifunctional composites have been developed which do deliver simultaneous benefits across a range of properties.

This Special Edition of 'Graphene Technology' highlights recent advances in graphene-enhanced composites with the first article giving a perspective on the transition from 'hype to opportunities'. The following research articles then show the diversity of areas in which graphene can bring benefits, from electromagnetic radiation absorbing foams to filaments for additive manufacture.

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✉ Ian A. Kinloch
ian.kinloch@manchester.ac.uk

¹ Department of Materials and the National Graphene Institute, University of Manchester, Oxford Road, Manchester M13 9PL, UK