

Graphene & Nanofillers for Composites

5th December 2013, National Composites Centre (NCC), Bristol

Nanomaterials are gaining wider use as fillers in polymers and macrocomposites to infer beneficial properties such as electrical and thermal conductivity, fire retardancy, self-healing, and improved mechanical properties (e.g. stiffness, toughness).

Graphene has recently emerged as one of the most significant nanomaterials with exceptional mechanical, electrical, thermal, and other claimed functional properties. Furthermore, the UK having won the Nobel prize, UK Government has invested in University centres, and UK spin-outs are currently scaling up to volume production of flake graphene.

The Event:

Sponsored and hosted by the National Composites Centre, part of the High Value Manufacturing Catapult, this event will:

- Present the latest developments in nanofillers
- Manufacturing and properties of nanocomposites for polymer systems, as well as their performance in composites
- Provide an excellent networking opportunity to form partnerships.

Programme

- 9.30 **Registration**
- 10.00 **Welcome & Introduction**
Dr Dan Kells, Research Manager, National Composites Centre
- 10.20 **Polymer Composite Additive Manufacturing to Simultaneously Build Hierarchical Materials and Net-shape Structures**
Dr Ben Farmer, Senior Research Engineer, EADS Innovation Works
- 10.40 **Large Volume, Bottom Up Synthesis of High Purity Graphene Nanoplatelets for Composite Application**
Dr Karl Coleman, Chief Technical Director, Applied Graphene Materials
- 11.00 **Melt Processing Composites of Polymers and Carbon based Nanoparticles**
Prof Tony McNally, Chair in Nanocomposites & Director – International Institute for Nanocomposites Manufacturing, WMG, University of Warwick
- 11.20 **Break & Networking**
- 11.50 **Processing & Properties of Graphene Composites**
Dr Cristina Vallés, University of Manchester - National Graphene Institute
- 12.10 **Up-Scaled Production of Graphene Reinforced Thermosetting Polymers for Composite Applications**
Dr Matthew Thornton, Project Manager, NetComposites Ltd



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- 12.30 **Plasma Functionalised Nanomaterials for Multi-scalar Composites**
Martin Williams, Technical Manager, Haydale Ltd
- 12.50 **Exploitation Opportunities in Aerospace and Defence**
Dr Amir Rezai, Advanced Technology Centre, BAE Systems
- 13.05 **Lunch, Networking & Tours of NCC**
- 14.15 **Pitches:**
- **Frequency Dependent Conductivity & Permittivity Properties of Composites**
Prof Chris Bowen, **University of Bath**
 - **Nanodielectric Processing for the Electrical Power Industry**
Dr Fabrice Perrot, **Alstom Grid**
NanoDiamond Fillers – Big Changes from Small Particles
Gavin Farmer, **Carbodeon**
 - **Graphene Oxide Nanocomposites**
Toby Sainsbury, **National Physical Laboratory**
 - **The Utility of a Nanomaterial Exchange in a Nascent Marketplace and as an Essential Catalyst for Ubiquitous Industry Integration**
Tom Eldridge, **Fullerex Limited**
 - **High Purity & Large Scale Production of Carbon Nanomaterials**
Dr Krzysztof Koziol, **University of Cambridge**
- 15.15 **Graphene Composites - Commercialisation Opportunities & Challenges**
Introduction to Break-out Session
Dr Bojan Boskovic, Director, Cambridge Nanomaterials Technology
- 15.25 **Break-out Session**
- 16.15 **Summary**
- 16.30 **Close**

Delegate Registration:

	Cost
NanoKTN Members	£50 +VAT
Supporting Partner Members	£65 +VAT
Non-members	£80 +VAT

For more information and to register, please visit: www.nanoktn.com

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Supporting partners:

