



The Institute of Materials, Minerals & Mining

Functional Materials Division ANNUAL REPORT FOR 2012

1. Board membership

The Functional Materials Division board was constituted in January 2012 following the establishment of the Division. The membership of the board is composed of the chair (Professor Robert Dorey, Cranfield University) and chairs of the relevant committees:

- Dr Martin Kemp: Nanomaterials and Nanotechnology Committee
Nanotechnology Knowledge Transfer Network (NanoKTN)
- Professor Markys Cain: Smart materials and Systems Committee Chair
National Physical Laboratory
- Dr Steve Dunn: Functional Materials Training Board Chair
Queen Mary, University of London
- Michael Khor: Functional Materials (Singapore) Committee Chair
Nanyang Technological University Singapore

Smart Materials and Systems Committee membership was updated in February 2012. Phil Irving of Cranfield University and Sharon Baurley of Brunel University resigned from the committee, Prof. Richard Bonser of Brunel University joined the committee

2. Board meetings

The board of the Functional Materials Division has yet to meet physically but communications have taken place via phone and email, as well as conversations between individual board members.

3. Activities during 2012

3.1. Technical programme

See Appendix; also a Smart Materials session was organised for the subsequently cancelled Congress 2012 on Materials in Sport.

3.2. Web-site developments

New website content for the Division has been developed and material has gone live on the IoM3 website. Committees have also updated their websites.

3.3. Engagement with technical community and/or local societies

Individual committees within the FMD continue to collaborate with each other and with the relevant KTNs.

SMASC engaged closely with the Materials KTN and is fully supportive of all the Smart Materials activities that are undertaken by this KTN. During 2012 SMASC has liaised with the MBE regarding a joint event and has maintained 'low level' contact with other IOM3 committees, with the view of working together on events at some point in the future.

3.4. Contributions to IoM3 house journals

- Profile article about the new Functional Materials Division has appeared in Materials World. Article also sought new members to join the committee. So far 1 person has enquired about getting involved.
- NNC has produced an article in materials world on nanotechnology - What are the risks of nanoscale particles? Feb 2012
- SMASC produced an article on Smart Nanostructured Surfaces for the February 2012 edition of Materials World.

4. Strategy and Objectives for 2013

4.1. Opportunities and constraints

FMD is planning on developing its activity through support of events (see below) and increased collaboration between committees and other relevant external groups.

4.2. 2013 planned activities

- HiPerNano 2013, Birmingham, Organised by NNC
- Session at National Science & Engineering week as part of Big Bang 2013 (15-24 March 2013) organised by NNC
- How will nanotechnology shape the 21st century? (mid 2013) organised by NNC

5. Other matters

Appendix: Technical Programme as of December 2012

Date (YY/YY/MM)	Status (Held /Progressing /Planned)	Title	Location	Organising Division(s) /Committee(s) /Collaborators	Financial Underwriter (IOM3/ Local/ Other)	100% Target No's	Actual No's
24/04/12	Held	2 Sessions at HiPerNano: Graphene & New Materials – update on graphene and new materials manufacture and applications. Sensors & Monitoring – next generation sensing devices and materials for health.	IET London: Savoy Place, London, UK	NNC	KTN		
5/05/21	Held	Nanorectification	1CHT	SMASC, Smart Materials KTN	KTN		
13/11/12	Held	Structural Power: An Emerging Technology from the Defence Sector	Shrivenham, UK	FMD, DSSC, KTN Aerospace, Aviation and Defence, KTN Materials	KTN		28