

PPE'15 – UK China AMRI

Polymer IRC Conference Room, WB19, University of Bradford

8-10 September, 2015

PROGRAMME



Tuesday 8 September

- 8.45 Welcome
Precision Processing & Resource Efficiency
- 1 9.00 *Sustainability: Implications on Polyolefin Products and Application Development*
Maria Soliman, Sabic
- 2 9.20 *Utilizing Novel technologies for the research and development in Material Science, processing and analyzing*
Frits de Jong, Thermo Scientific
- 3 9.40 *Electron Beam for Plastics Modification – a powerful tool*
Michel Bielman, eBeam; Cristina Tuinea-Bobe Polymer IRC, Bradford
- 4 10.00 *Leading edge developments in micro moulding*
Barry Hill, Wittmann Battenfeld
- 5 10.20 *Ultrasonic molding, the next generation of micro-molding*
Enric Sirera, Ultrason
- 10.40 **Coffee & Posters/ EXHIBITION**
- 6 11.10 *Progress on Microprocessing of Polymer-Based Multifunctional Micro/Nanocomposites*
Qi Wang, Sichuan
- 7 11.30 *Advances in precision micromoulding*
Karthik Nair, Polymer IRC, Bradford
- 8 11.50 *Composite colloidal particles as high performance fillers for silicone rubber*
Dong Qiu, ICCAS Beijing
- 9 12.10 *Rapid Fabrication of Micro Structure on PMMA Substrate by the Plate to Plate Transition-Spanning Isothermal Hot Embossing Method Nearby T_g*
Daming Wu, BUCT
- 12.30 **Lunch & EXHIBITION**
- 10 13.50 *Factors affecting the compatibilization efficiency of nanoparticles in immiscible polymer blends*
Yajiang Huang/ Guangxian Li, Sichuan
- 11 14.10 *Electrical and rheological percolation of composites of poly(ϵ -caprolactone) and MWCNTs*
Tony McNally, Warwick
- 12 14.30 *SLS 3D printing of Polyurethane Carbon Nanotubes Nanocomposites*
Hesheng Xia, Sichuan
- 13 14.50 *Replication quality of polymer distributed and deterministic nano geometries*
Guido Tosello, DTU
- 15.10 **Tea & Posters/EXHIBITION**
- 14 15.40 *Simulation and Validation of Mold Filling with Velocity Controlled Valve Gates*
Zhongshuang Yuan, Autodesk
- 15 16.00 *An information technology way for uplifting polymer processing efficiency*
Furong Gao, HKUST
- 16 16.20 *Energy management - new technologies for plastics processing*
Robin Kent, Tangram Technology
- 17 16.40 *SME technologies:*
The use of covert surface markings in the security of products
Phil Harrison, Sofmat
A Novel Bioresorbable Stent by Solid-Phase Orientation Process
Kadem Al-Lamee, Arterius
Novel, point-of-use assay kits to assess the quality of donated organs prior to their possible use in transplant surgery
Brian Thomson, Aedstem / Polymer IRC Bradford
- 17.10 **Laboratory demonstrations**
- 18.00 end of demos
- 18.30 Conference banquet (Great Victoria Hotel)



Wednesday 9 September

8.40 **Formal welcome and Strategy**

Guangxian Li; Phil Coates

Sunan Jiang, Chinese Embassy - Minister Counsellor for Science & Technology

Giles Blackburne, CBBC

UKTI

Advanced Materials for Healthcare Technologies

- 1 9.20 *Stress-whitening in Isotactic Polypropylene at large Strains during Tensile Deformation at Elevated Temperatures*

Yongfeng Men, CIACCAS Changchun

- 2 9.40 *Synchrotron Studies on Material Distribution and Transfer in Drug Delivery System*

Jiwen Zhang, SIMMCAS Shanghai

- 3 10.00 *Fast Recyclable and Multiple Self-healing Epoxy Materials through Diels-Alder Adduct Cross-linker*

Dujin Wang, ICCAS Beijing

- 4 10.20 *Design and preparation of advanced dielectric elastomers with excellent electromechanical performance*

Liqun Zhang BUCT

10.40 **Coffee & Posters/ EXHIBITION - Group Photograph**

- 5 11.10 *Solid State Molecular Orientation to Obtain Enhanced Polymer Properties*

Ian Ward, Leeds

- 6 11.30 *Oriented Bioresorbable Polymers for Biomedical Applications*

Dimitrios Vgenopoulos, Polymer IRC, Bradford

- 7 11.50 *Developments in processing functionally graded osteochondral cell-conducting materials*

Andrew Pattinson/ Pete Twigg, Polymer IRC, Bradford

- 8 12.10 *Studies on PVA/Bioceramics Composite Foams Used for Joint Soft Tissue Repair*

Chuhong Zhang, Sichuan

12.30 **Lunch & EXHIBITION**

- 9 13.50 *Stratified Design and Manufacture of Medical Devices*

MeDe1 - John Fisher, Leeds

- 10 14.10 *Biofabrication Techniques for In-Clinic Manufacture of Medical Devices*

MeDe2 - Kenny Dalgarno, Newcastle

- 11 14.30 *Novel Microstructural Features in Resorbable Glass for Cell and Biomaterial Interactions*

MeDe3 - Ifty Ahmed, Nottingham

- 12 14.50 *Biofunctional Modifications to Biomaterials used in the Manufacture of Musculoskeletal Medical Devices*

MeDe4 - Paul Hatton, Sheffield

15.10 **Tea & Posters/EXHIBITION**

- 13 15.40 *Polymer technologies for the control of bacterial adhesion/ Ibuprofen-loaded nano-hydroxyapatite: a spectroscopic and computational study*

MeDe5 - Maria Katsikogianni/Yulia Ryabenkova, Bradford

- 14 16.00 *Biocompatibility of Nanohydroxyapatites in 2- and 3-Dimensional Culture Systems*

Aileen Crawford, Sheffield

- 15 16.20 *Biofunctional branched polymers incorporated in semi-interpenetrating hydrogels*

Steve Rimmer, Polymer IRC, Bradford

- 16 16.40 *Age-dependent Cellular Distribution of the Mammalian Lens Epithelium*

Junjie Wu, Durham

17.00 **Laboratory demonstrations**

18.00 *end of demonstrations*

18.30 *banquet (Great Victoria Hotel)*

Advanced Materials for Healthcare Technologies

- 1 8.30 *Modelling of Processing of Oriented Polymers*
Paul Spencer Polymer IRC, Bradford
- 2 8.50 *Development of Crystalline Orientation in Die-Drawn HDPE Pipes*
Ajay Taraiya, Sabic
- 3 9.10 *Controlled Drug Release from Oriented Polymer Matrices*
Adrian Kelly' Polymer IRC, Bradford /UKIERI
- 4 9.30 *Structure and Blood Compatibility of Highly Oriented Poly(lactic acid)*
Lin Ye, Sichuan
- 5 9.50 *Modification of Polyethersulfone Membrane for Blood Purification*
Changsheng Zhao, Sichuan

- 10.10 **Coffee & Posters**

- 6 10.40 *Linking Macromolecular Architecture to Polymer Processing: Some Case Studies*
Harshawardhan Pol: National Chemical Laboratory, Pune -UKIERI
- 7 11.00 *Degradation of pharmaceuticals during high shear processing*
Anant Paradkar, Polymer IRC, Bradford/ UKIERI
- 8 11.20 *Surface Characterisation at the Nano-Level Using Atomic Force Microscopy (AFM)*
Colin Grant, Polymer IRC, Bradford
- 9 11.40 *Composition Analysis by AFM-IR of Nano Domains in High Impact Polypropylene*
Zhaohui Su, Changchun
- 10 12.00 *The structure and rheological properties of Polymer/nanoparticle composites*
Zhaoyan Sun, Changchun
- 11 12.20 *Preparation of Poly(vinyl alcohol)/Gelatin Composite via In-situ Extrusion*
Li Li, Sichuan
- 12 12.40 *Advanced health care opportunities through targeting orphan Cytochromes P450*
Laurence Patterson, ICT Bradford University

- 13.00 **Lunch**
AMRI Board meeting

- 14.00 **Workshop session**

- 17.30 End of Workshop

- 18.30 Banquet