

# Nanopolymers

# 2011

3<sup>rd</sup> INTERNATIONAL CONFERENCE

13-14 September 2011

The Radisson Blu Scandinavia Hotel, Düsseldorf

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# Nanopolymers 2011

**13-14 September 2011**

iSmithers' Third International Nanopolymers Conference will provide an update on the burgeoning growth being seen for polymers incorporating nano-scale additives, including clays, carbon nanotubes, and other nanoparticles. Nanopolymers are finding applications now in most market sectors, specifically in transport, energy, packaging and construction, where improvements in weight saving, barrier properties, flame retardancy, and functional coatings are achievable with nanotechnology based components. Invited speakers from around the world will address current market sizes and future expectations. Processing these materials will also be considered, along with how best to maximise property enhancement opportunities. As with most new technologies, regulatory and environmental aspects are being raised, and for nanopolymers information and guidance in these areas will be discussed. In addition there will be a focus on the sectors where nanomaterials are making the most impact.

This two-day conference is packed with innovative, application-driven case studies, and those attending will have the opportunity to meet and exchange ideas with the leaders and movers from across the world.

## Early Registration Offers

Register before **8 July 2011** to take advantage of the special Early Bird Discount registration fee.

### *Companies sending one or two delegates*

€799 + VAT @ 19% per delegate before 8 July 2011

€1099 + VAT @ 19% per delegate after 8 July 2011

### *Companies sending three or more delegates*

€699 + VAT @ 19% per delegate before 8 July 2011

€999 + VAT @ 19% per delegate after 8 July 2011

Registration includes a copy of the proceedings, lunches and refreshments during the day. The cost of accommodation is not included in the delegate registration fee.

**For Further Information:** Please contact Helen Charlesworth or Sharon Garrington, tel: +44 (0)1939 250383 or email [conferences@ismithers.net](mailto:conferences@ismithers.net)

## Conference Venue

### Radisson Blu Scandinavia Hotel

Karl-Arnold-Platz 5

D-40474 Düsseldorf

Germany

Tel: +49 (0)211 4553 3500

Email: [reservations.dusseldorf@radissonblu.com](mailto:reservations.dusseldorf@radissonblu.com)

Situated close to the River Rhine, the Radisson Blu Scandinavia Hotel offers a unique view of this world-class city, which plays host to modern architecture and industry as well as memorable historical sites. Visitors in Düsseldorf will find a growing art scene rich in avant-garde

museums and galleries. The city also has several examples of historical and modern architecture, as well as famous World War II landmarks. Düsseldorf serves as an important European business hub and is an ideal destination for business travellers.



## Accommodation

We are holding a limited number of rooms at the Radisson Blu Scandinavia Hotel at a specially negotiated rate. Accommodation booking forms will be sent with your joining instructions on receipt of your completed conference registration form. For further assistance please contact [conferences@ismithers.net](mailto:conferences@ismithers.net).

## Sponsorship & Exhibition

A limited number of cost-effective sponsorship opportunities are available to promote your products and/or services to a highly targeted audience. Starting from as little as €750 for a wallet service this is an ideal opportunity to maximise your company's profile at one of the industry's leading events. For further information please contact Helen Charlesworth, tel: +44 (0)1939 250383, email: [hcharlesworth@ismithers.net](mailto:hcharlesworth@ismithers.net).

### About the Organisers

iSmithers has been organising world class technical conferences for the polymer and related industries for over 30 years. Drawing authorities from industry and academia, conferences offer the ideal forum to hear original, pioneering technical papers and meet and exchange ideas with like-minded peers from across the world. With topics spanning the latest developments in rubber and plastics technology, legislative changes and market trends, iSmithers conferences continue to attract over 1,200 senior technical executives and decision makers per year.

# Conference Agenda

Tuesday 13 September

Wednesday 14 September

08.30 COFFEE AND REGISTRATION

09.20 Welcome to Nanopolymers 2011

## Session 1: Markets and Trends

09.30 Introduction and background

*Dr Alan Smith, AZ-Technology, UK*

10.00 The market for nanotechnologies

*Tim E Harper, Cientifica, UK*

10.30 COFFEE

## Session 2: Nano-Component Developments & Processing

11.00 New hybrid nanostructured organic-inorganic polymeric materials with silsesquioxane cores

*H Harris & P J Lutz, Institut Charles Sadron CNRS/ University of Strasbourg, France*

11.30 Challenges in nanocellulose production and utilisation

*Prof Tom Lindström, Innventia, Sweden*

12.00 QUESTION AND ANSWER SESSION

12.15 LUNCH

## Session 3: Property Enhancement with Nanomaterials

13.45 Impregnating thermoplastics with novel additives by means of a carrier particle

*Dr Daniel Lynch, Exilica, UK*

14.15 Nanocomposites for improved flame retardancy – what we know and what is still unsolved

*Dr Günter Beyer, Kabelwerk, Belgium*

14.45 Polymer-nanophosphor composites for some light relief

*Prof Robert Withnall, Brunel University, UK*

15.15 COFFEE

## Session 4: Regulatory, Environmental & Characterisation Implications

15.45 The patent situation for nanopolymers

*Richard Michalitsch, European Patent Office, Germany*

16.15 Regulatory challenges for nanomaterials in the EU

*Dr Anna Gergely, Steptoe & Johnson, Belgium*

16.45 QUESTION AND ANSWER SESSION

17.00 END OF DAY ONE

18.00 EVENING SOCIAL EVENT

## Conference Language

Please note that the conference will be conducted in English.

08.30 COFFEE AND HOTEL CHECK-OUT

## Session 5: Specific Application Areas for Nanopolymers

Clays:

09.00 Montmorillonite – an effective additive to make nanopolymers

*Dr Tie Lan, Nanocor Inc, USA*

09.30 Nanostructured polymer films – application of polymer brushes to colloidal nanocomposites

*Prof Rigoberto Advincula, University of Houston, USA*

10.00 Hybrid filler networks in hydrocarbon polymer compounds – the unexpected role of organoclay building blocks

*Luca Giannini, Pirelli, Italy*

10.30 COFFEE

11.00 FP6 Pegasus project – automotive applications

*Colin Chilles, Smithers Rapra, UK*

11.30 Biocomposite materials for food packaging and high performance applications

*Keith Dingwall, Institute of Nanotechnology, UK*

12.00 QUESTION AND ANSWER SESSION

12.15 LUNCH

Carbon nanotubes:

13.30 Inno.CNT – a novel cooperation model to conquer new markets for CNT-based products

*Dr Péter Krüger, Bayer MaterialsScience AG, Germany*

14.00 An overview of the FP7 project “CONTACT” – tailored supply chain development of the mechanical and electrical properties of CNT-filled composites

*Dr Christof Hübner et al, Fraunhofer Institute for Chemical Technology (ICT), Germany*

14.30 Carbon nanotubes – a review of their current applications and trends for the future

*Cédric de Villepin, Dr Michaël Claes & Céline Dewaghe, Nanocyl SA, Belgium*

15.00 COFFEE

Graphene:

15.30 The potential of graphene in multifunctional composites

*Dr Ian Kinloch, University of Manchester, UK*

16.00 Polymer reinforcement with graphene – high performance at low cost

*Prof Jonathan N Coleman, Trinity College, Dublin, Ireland*

16.30 QUESTION AND ANSWER SESSION

16.45 END OF CONFERENCE

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*Note: The conference organisers reserve the right to modify or change the programme if necessary.*

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