

*Cross Technology Area Workshop 2014 “New Horizons in Polymer Characterisation”*

Date : Thursday 23 January 2014  
 Time : 9.00 – 19.00  
 Location : Holiday Inn Eindhoven, Veldmaarschalk Montgomerylaan 1, Eindhoven

---

09h00 **Welcome and Registration**

09h30 Opening Remarks by S. van der Zwaag (Scientific Director DPI and Chairman)

09h40 PolyOlefins

M. Honing (DSM Resolve): Challenges in Analytical Sciences: Resolving the Molecular Structures in complex polyolefine systems  
 I. Mingozzi (LyondellBasell): polyolefines characterisation: some recent challenging examples

10h00 Performance Polymers

P. de Lange and Anton H.M. Schotman (Teijin Aramid Research): New challenges in the characterisation of aramid fibers  
 C. Wold (SABIC Innovative Plastics) : Analytical challenges for engineering thermoplastics

10h20 Functional polymer systems

R. Janssen (TU/e): Current challenges in functional polymeric systems

10h40 **Break**

11h00 Coatings technologies

L. van de Ven (AkzoNobel): Challenges in the characterisation of coatings  
 R. Peters (DSM): Coatings - the greatest analytical challenges

11h20 Bio-inspired and bio-based polymers

Y. Nicolas (FrieslandCampina): Challenges in the characterization of bio-based polymers for food applications

11h40 G. Peters(TU/e): In-house build experimental set-ups - how to get more from your equipment

12h10 **Lunch** (Posters from equipment manufacturers will be exposed on the walls next to the meeting room).

**Scattering techniques**

*Chair: G. Peters (TU/e)*

**NMR and hyphenated techniques**

*Chair: A. Kentgens (RUN)*

13h00 G. Peters (TU/e): Using x-ray scattering to study and predict polymer crystallization

A. Kentgens (RUN): Current developments in NMR for polymer characterization

13h30 G. Portale (ESRF): Advanced X-ray scattering techniques for polymer characterization: what can we learn more

V. Litvinov (DSM): Solid state NMR: how it helps material research

14h00 **Break**

14h10 K. Schneider (IPFDD): Online structure characterization during deformation and fracture of polymers using x-ray scattering

A. Velders (WUR): Using solution-state NMR spectroscopy to study functionalization and encapsulation properties of dendrimers

14h40 K. Pappas (TUD): Current developments in neutron scattering for polymer characterization

A. de Jong (UU): Hyphenated techniques for characterization of biopolymers (proteins)

15h10 (Pre-submitted) questions and answers

(Pre-submitted) questions and answers

15h30 **Break**

*Cross Technology Area Workshop 2014 “New Horizons in Polymer Characterisation”*

**Electron Microscopy**

*Chair: S. van Tendeloo*

- 15h45 M. Vos (FEI): TEM Solutions for Polymer characterisation challenges
- 16h15 R. Geurts (FEI): SEM and Dual Beam Solutions for Polymer characterisation challenges
- 16h45 **Break**
- 16h55 J. Loos (DSM): Electron Microscopy @ OneDSM
- 17h10 N. Sommerdijk (TU/e): 2D and 3D Cryo-TEM in the analysis of complex block copolymer morphologies
- 17h25 H. Friedrich (TU/e): Quantitative 2D and 3D TEM of nanostructured polymers and composites
- 17h40 (Pre-submitted) questions and answers
- 18h15 Closing remarks and buffet**