

ICPC 2010

Poster Presentation list

1. Studies on Thermal Decomposition Kinetics of C5 Petroleum Resin

Li Ai-yuan¹, Sun Xiang-dong¹, Zhang Hui-bo¹, Xu Guo-cai²

¹ Ningbo Professional and Technical College, China

² Anhui university of science and technology, China

2. Effects of CEF Run Parameters on the CCDs of Metallocene LLDPE Blends

Abdulaziz A. Alghyamah, João B.P. Soares

University of Waterloo, Canada

3. Theoretical Analysis on Chain Microstructures of Olefin Block Copolymers

Sompob Buaparungsri¹, Siripon Anantawaraskul^{1,*}, João B.P. Soares²

¹ Kasetsart University, Thailand

² University of Waterloo, Canada

4. TREF calibration with homogeneous ethylene/ α -olefin copolymers

Emilie Cossoul¹, Jean-Pierre Broyer¹, Fernande Boisson², Christophe Boisson^{1*}, Olivier Boyron^{1*}

¹ Université de Lyon, France

² IMP/CNRS/UMR5223, France

5. Imaging Techniques As Tools For Studying The Ageing Behaviour Of PP-Pipes

R. Maria¹, R. Brüll¹, K. Rode¹, G. Geertz¹, J. Wüst², K. Engelsing², M. Wenzel², R. Kleppinger³

¹ German Institute for Polymers (DKI), Germany

² SKZ, Germany

³ DSM Resolve, The Netherlands

6. Separation of High Impact Polypropylene Using Interactive Liquid Chromatography

Robert Brüll¹, Tibor Macko^{1,2}, Klaas Remerie³, Lars-Christian Heinz⁴

¹ German Institute for Polymers (DKI), Germany

² Dutch Polymer Institute (DPI), The Netherlands

³ SABIC T&I Geleen, The Netherlands

⁴ DSM Resolve, The Netherlands

7. The First Interactive Liquid Chromatography of EPDM polymers

Rajesh Chitta^{1,2}, Robert Brüll¹, Tibor Macko^{1,2}, Gerard van Doremalee³, Lars-Christian Heinz⁴

¹ Deutsches Kunststoff-Institut (German Institute of Polymers), Germany

² Dutch Polymer Institute (DPI), The Netherlands

³ DSM Elastomers B.V., The Netherlands

⁴ DSM Resolve, The Netherlands

8. Monitoring the behaviour of polyethylene in diluted solutions with solution differential scanning calorimetry

Robert Brüll, Tibor Macko

German Institute for Polymers (DKI), Germany

9. Unsaturation analysis of polyolefins by thermal gradient NMR with high temperature cryoprobe

Rongjuan Cong¹, Zhe Zhou², Yiyong He², Mike Cheatham¹, Manjiri Paradkar², Willem deGroot¹

¹ Basic Plastics Characterization ; ² Analytical Sciences

The Dow Chemical Company, U.S.A.

10. Design Criteria for Creating Columns for the Analysis of Polyolefins by Gel Permeation Chromatography

Lee Creaser

Agilent Technologies, United Kingdom

11. Influences of Ionic Environment on Self-assembly Behavior of Hyperbranched Polymers

Guorong Duan^{1,2*}, Xin Wang¹, Guohong Huang, Ying Gong², Aimei Li², Xujie Yang²

¹ Nanjing University of Science and Technology, China

² Nanjing Hydraulic Research Institute, China

12. Nanocomposites of LDPE and Silica by High Energy Ball Milling: Structure and Thermostability

Gustavo González-Gaitano¹, Dania Olmos², Javier González-Benito²

¹ Universidad de Navarra, Spain

² Universidad Carlos III de Madrid, Spain

13. The Effect of Cyclodextrins on the Crystallinity of Isotactic Polypropylene

Iñigo X. García-Zubiri¹, José R. Isasi¹, **Gustavo González-Gaitano**¹, and Rufina Alamo²

¹ Universidad de Navarra, Spain

² FAMU and Florida State University College of Engineering, U.S.A.

14. The use of nanoindentation to investigate the structure-property relationships of Ziegler-Natta catalysed isotactic polypropylene

Gareth W. Harding, Albert J. Van Reenen

University of Stellenbosch, South Africa

15. "True" Concentration Determination Using a Composition Sensitive Detector for MW/MWD Characterization of Polyolefins

Tianzi Huang, Ray Brown, Rongjuan Cong, Wallace Yau, Lonnie Hazlitt, and A. Willem deGroot

The Dow Chemical Company, U.S.A.

16. The Dynamic Rheological Study of Biaxially Oriented Polypropylene (BOPP)

Kai Jiang, Fenghua Zu, Li Wang, Xiaoying Lu, Jianjun Yi*

PetroChina Company Limited, China

17. Composites of polyolefin with comminuted straws from annual crops

Ewa Spasowka, **Ewa Kowalska**, Marta Kijenska

Industrial Chemistry Research Institute, Poland

18. Effect of alkali on rheological behavior of polymer solution

Xiao-wei Li

Research Institute of Daqing Oil Field Company, China

19. Degraded High Density Polyethylene Grafted Carbon Black Technique and its Reinforcement on The Pipeline Materials

Xuelian He, Yongqing Chai, Yaohuang Wang, Xin Qi, **Boping Liu***
East China University of Science and Technology, China

20. Comparison of Crystallization Behaviors between Unimodal and Bimodal High Density Polyethylene for High Grade Plastic Pipe Materials

Xin Qi, Xuelian He, **Boping Liu***
East China University of Science and Technology, China

21. Additional Effects of Homo-Polyethylene with Different Molecular Weights on the Mechanical Properties and Crystallization Behavior of a Unimodal PE100

Yaohuang Wang, Xuelian He, **Boping Liu***
East China University of Science and Technology, China

22. Analysis of Short Chain Branches Distribution in Pipe Grade Polyethylenes from a Hybrid Chromium-Based Catalyst System

Shiliang Zhang, Ruihua Cheng, Qi Dong, **Boping Liu***
East China University of Science and Technology, China

23. TREF and SSA Characterization of Ethylene and 1-Hexene Copolymers from SiO₂-Supported Silyl Chromate Catalyst with Different Al-Alkyl Cocatalysts

Ning Zhao, Qi Dong, Ruihua Cheng, **Boping Liu***
East China University of Science and Technology, China

24. Stress-whitening of High-impact Polypropylene: Characterization and Analysis

Xuanbo Liu, Wenjun Wei
Beijing Research Institute of Chemical Industry, China

25. Repeatability and Reproducibility of Sample Preparation and Analysis in High-Temperature SEC: IUPAC SEC/GPC Round Robin Project Report (PHASE 1)

Nyambeni Luruli¹, Christian Piel², Harald Pasch³

¹ Sasol Polymers, South Africa.

² Borealis Polyolefine GmbH, Austria,

³ University of Stellenbosch, South Africa

26. New sorbent/solvent systems for separation of polyethylene and polypropylene with interactive liquid chromatography

R. Chitta, **T. Macko**, R. Brüll
German Institute for Polymers (Deutsches Kunststoff-Institut), Germany

27. Separation of propene/alkene and ethylene/alkene copolymers by interactive HPLC

T. Macko¹, B. Brüll¹, S. Losio², F. Forlini², R.G. Alamo³, F. J. Stadler⁴, Y. Thomann⁵

¹ German Institute for Polymers (Deutsches Kunststoff-Institut), Germany

² ISMAC-C.N.R, Italy

³ FAMU/FSU College of Engineering, U.S.A.

⁴ Chonbuk National University, South Korea

⁵ Freiburg Materials Research Center and Institute for Macromolecular Chemistry, Germany

28. High-Temperature Two-Dimensional Liquid Chromatography (HT HPLC×SEC) Of Polyolefins Versus TREF×SEC

A. Ginzburg^{1,2}, **T. Macko**^{1,2}, V. Dolle³, R. Brüll¹

¹ German Institute for Polymers (DKI), Germany

² Dutch Polymer Institute (DPI), The Netherlands

³ LyondellBasell, Germany

29. Influence of molar masses on separation of polyolefins with gradient adsorption liquid chromatography in system Hypercarb/1-decanol/1,2,4-trichlorobenzene

T. Macko¹, B. Brüll¹, R.G. Alamo², S. Losio³, F. J. Stadler⁴, K. Kivistik⁵, T. Poltimäe⁵, Y. Thomann⁶

¹ German Institute for Polymers (Deutsches Kunststoff-Institut), Germany

² FAMU/FSU College of Engineering, U.S.A.

³ ISMAC-C.N.R., Italy

⁴ Chonbuk National University, Republic of Korea

⁵ Tallinn University of Technology (TUT), Estonia

⁶ Freiburg Materials Research Center and Institute for Macromolecular Chemistry, Germany

30. Comparison of elution profiles obtained with CRYSTAF and with high-temperature HPLC for ethylene/1-butene and ethylene/1-octene copolymers

T. Macko¹, S. Mehdiabadi², J.B.P. Soares², R. Brüll¹

¹ German Institute for Polymers (Deutsches Kunststoff-Institut), Germany

² University of Waterloo, Canada

31. A Complete Solution for the High Temperature Characterization of Polyolefins by Gel Permeation Chromatography

Ben McCreath

Agilent Technologies, UK

32. Full Automation of Preparative Fractionation of Polyolefins on packed column technology

Benjamín Monrabal, Rebeca Chiva, Pilar del Hierro, Nuria Mayo, Juan Sancho-Tello

Polymer Char, Spain

33. Dynamical Density Functional Simulation of phase formation in Polypropylene Impact Copolymers

Shyamal K. Nath¹, Johannes G.E.M. Fraaije², Klaas Remerie³, Jan Groenewold⁴

¹ Culgi Incorporated, U.S.A.

² Leiden University, The Netherlands

³ SABIC T&I, STC Geleen, The Netherlands

⁴ Utrecht University, The Netherlands

34. Advantages of Infrared detection in GPC of Polyolefins

Alberto Ortín, Benjamín Monrabal, Jesús Montesinos, Pilar del Hierro, Nuria Mayo

Polymer Char, Spain

35. New calibration method for accurate determination of ethylene content in EP copolymers by CRYSTEX-IR

Alberto Ortín, Loli Romero

Polymer Char, Spain

36. High Temperature Asymmetrical Flow Field Flow Fractionation as an Universal Separator for Ultrahigh Molar Mass- and extensively branched Polyolefins

Tino Otte¹, Thorsten Klein¹, Robert Brüll², Harald Pasch³

¹ Postnova Analytics GmbH, Germany

² German Institute for Polymers, Germany

³ University of Stellenbosch, South Africa

37. Phase Separation in the Bimodal Polyethylene for Pipes

Minqiao Ren

SINOPEC Beijing Research Institute of Chemical Industry, China

38. The Investigations on Morphological Changes of Linear, Branched Polyethylenes and their Blends during Crystallization and Subsequent Melting by Synchrotron SAXS and DSC

Yingying Sun, Zhiyong Jiang, Yongfeng Men

Changchun Institute of Applied Chemistry, Chinese Academy of Sciences, China

39. An in-situ Small Angle X-ray Scattering Study of Propylene-1-Butene and Propylene-Ethylene Random Copolymers during Heating Process

Yujing Tang, Liping Hou and Jianfang Sheng

Beijing Research Institute of Chemical Industry, Sinopec, China

40. Long-term Stabilization of Polypropylene Based on the Interaction of Stabilizer and Hyperbranched Polymer

Toshiaki Taniike ¹, Masaki Umemori ¹, Nguyen Tien Binh ¹, **Minoru Terano** ¹, Hisayuki Nakatani ²

¹ Japan Advanced Institute of Science and Technology (JAIST), Japan

² Kitami Institute of Technology, Japan

41. Effects of Spherulites for the Mobility of Stabilizers in Polypropylene

Masaki Umemori, Toshiaki Taniike, **Minoru Terano**

Japan Advanced Institute of Science and Technology (JAIST), Japan

42. Preparation of polypropylene-based nanocomposites using SiO₂ with grafted matrix polymer chain

Masaki Umemori, Toshiaki Taniike, Minoru Terano

Japan Advanced Institute of Science and Technology (JAIST), Japan

43. Molecular rheology of model ethylene/styrene copolymers

J.F. Vega, **M.T. Expósito**, **J. Martínez-Salazar**

Instituto de Estructura de la Materia. CSIC. Madrid. Spain

44. Study on High Impact Polypropylene Prepared with Ziegler-Natta/Metallocene Hybrid Catalyst

Rongbo Li^{1,2}, Hualin Luo¹, Yong Zhou¹, **Ying Zhao**^{1,*}, Jinyong Dong¹, Dujin Wang¹

¹ Chinese Academy of Sciences, China

² PetroChina Petrochemical Research Institute, China

45. Characterization of Short Chain Branching in Polyolefin Copolymers by Full Scan GPC-FTIR Using the Infrared Fingerprint Region

Ming Zhou, William Carson, Sidney Bourne, Tom Kearney

Spectra Analysis Instruments, U.S.A.

46. Study of Cocrystallization Effects on PE/PP Blends

Abdulaziz A. Alghyamah, Ahmad Alshaiban, João B.P. Soares

University of Waterloo, Canada

47. Application of a New High Temperature Low Angle Laser Light Scattering (LALS) Detector for the Characterization of Polyolefins

Wei Sen Won

Malvern Inc., USA