8th ICPC Poster Presentations

May 22, 15:30h
Posters Area
The Westin Valencia Hotel. Valencia, Spain.

1. Development of an analytical approach to characterize PP based recyclates by CRYSTEX technology
   Andreas Albrecht[1], Ljiljana Jeremic[1], Pilar del Hierro[2], Pia Wolfger[1]
   [1]*Borealis Polyolefine (Austria),* [2]*Polymer Char (Spain)*

2. Tailor-making chain microstructures of Ethylene/1-Butene copolymers using machine learning
   Orathai Amnuaykijvanit, Kett Khayanying, Siripon Anantawarasakul, Thanawin Rakthanmanon
   Kasetsart University (Thailand)

3. Comprehensive analysis of Low-Density Polyethylene using analytical methods
   Jan-Hendrik Arndt[1], Tibor Macko[1], Subrajeet Deshmukh [1], Masud Monwar[2], Youlu Yu[2], Robert Brüll[1]
   [1]*Fraunhofer Institute LBF (Germany),* [2]*Chevron Phillips Chemical Company (USA)*

4. Cloud Point temperature investigations – key information about slurry polymerization
   Jan-Hendrik Arndt[1], Tibor Macko[1], Francisco Pérez[2], Robert Brüll[1]
   [1]*Fraunhofer Institute LBF (Germany),* [2]*SABIC Technology & Innovation (The Netherlands)*

5. Characterization of maleic anhydride functionalized polyolefins with HT-GPC-IR6 and HT-GPC-UV
   Jan-Hendrik Arndt[1], Tibor Macko[1], Henk Verhoogt[2], Joep Vanderfeesten[2], Robert Brüll[1]
   [1]*Fraunhofer Institute LBF (Germany),* [2]*SABIC Technology & Innovation (The Netherlands)*

6. Recycled HDPE from milk bottles: Cross-contamination problems and possible solutions
   Aymara Blanco Romero[1], Rafael Juan Rodríguez[1], Carlos Domínguez Vizcaya[1], Beatriz Paredes[1] Martínez[1], Rafael A. García- Muñoz[1]
   [1]*King Juan Carlos University (Spain)*

7. Deconvolution of polymerization kinetics and polymer microstructures for Ethylene/1-Olefin copolymers produced from two-reactor system
   Wannida Boopphakome[1], Tamaned Chayrattanaroj[1], Siripon Anantawaraskul[1], João B. P. Soares[2]
   [1]*Kasetsart University (Thailand),* [2]*University of Alberta (Canada)*

8. Measurement of the intrinsic viscosity of polyolefins and PET by IVA
   Olivier Boyron[1], Alberto Ortín[2], Pilar del Hierro[2], Manel Taam[1], Olivier Boulan[1], Thomas Soullié[1]
   [1]*CNRS Lyon (France),* [2]*Polymer Char (Spain)*

9. Chemical Composition of LLDPE using raman spectroscopy and chemometrics
   Olivier Boyron[1], Sofiane Ferchichi[2], Stéphane Lebras[3], Anaud Di Bitetto[3]
   [1]*CNRS Lyon (France),* [2]*IFPEN (France),* [3]*Thermofisher (France)*

10. Characterization of entanglement of UHMWPE
    Olivier Boyron, Olivier Boulan, Roberta Lopes do Rosari, Manel Taam
    CNRS Lyon (France)

11. Chain Microstructures of Olefin Block Copolymers (OBCs): theoretical model and its applications in materials design
Tamaned Chayrattanaroj[1], Sompob Buaparungsri[1], Suwicha Sottesakul[1], Poramet Buakrong[1], Siripon Anantawaraskul[1], João B. P. Soares[2]
[1]Kasetsart University (Thailand), [2]University of Alberta (Canada)

12. Unlocking superior properties in Polypropylene/Polyethylene Terephthalate (PP/PET) blends using reactive compatibilization
Sebastián Coba-Daza[1], Itziar Otaegi[2], Nora Aramburu[2], Gonzalo Guerrica-Echeverria[2], Georg Ramer[3], Lourdes Irusta[2], Alba Gonzalez[2], Dario Cavallo[4], Davide Tranchida[5], Alejandro J Müller[2]
[1]Basque Country University- Borealis Polyolefine (Spain-Austria), [2]Basque Country University (Spain), [3]TU Wien (Austria), [4]University of Genova (Italy), [5]Borealis Polyolefine (Austria)

13. Development of an in-line filter for analysis of complex polyolefin compounds with CRYSTEX technique and comparison with off-line filtration
Pilar del Hierro[1], Ljiljana Jeremic[2], Andreas Albrecht[2]
[1]Polymer Char (Spain), [2]Borealis Polyolefine (Austria)

14. Automatic differential dual capillary viscometer for low temperature measurement of PET and other polymers
Pilar del Hierro
Polymer Char (Spain)

15. A novel approach for evaluating the suitability of non-chlorinated solvents for liquid adsorption chromatography of polyolefin elastomers
Subrajeet Deshmukh[1], Jan-Hendrik Arndt[1], Tibor Macko[1], Raffaele Bernardo[2], Gerard van Doremaele[2], Robert Brüll[1]
[1]Fraunhofer Institute LBF (Germany), [2]Arlanxeo (The Netherlands)

16. Application of high-temperature size exclusion chromatography coupled with dual detection for measuring the distribution of unsaturation in EPDM terpolymers
Subrajeet Deshmukh[1], Jan-Hendrik Arndt[1], Tibor Macko[1], Raffaele Bernardo[2], Sander Niessen[2], Robert Brüll[1]
[1]Fraunhofer Institute LBF (Germany), [2]Arlanxeo (The Netherlands)

17. Hyphenating CEF and MALS detector: Challenges and overcomes
Manoela Ellwanger
Braskem (Brazil)

18. Advances in Dynamic Crystallization technique for the characterization of the Chemical Composition Distribution.
Tonica González, Laura Santonja, Jean Paul Soliva, Benjamín Monrabal
Polymer Char (Spain)

19. Enhancing Crystallization Rate of Polyethylene in Immiscible blends with Polypropylene: The Role of Self-Nucleation of Polypropylene and Polyethylene Chain Regularity
Magdalena Góra[1], Sebastián Coba-Daza[2], Enrico Carmeli[3], Davide Tranchida[3], Andreas Albrecht[3], Alejandro J Müller[2,] Dario Cavallo[1]
[1]Universitá degli studi di Genova (Italy), [2]Basque Country University (Spain), [3]Borealis Polyolefine (Austria)

20. Simultaneous and fast determination of key design parameters of PP compounds by Crystex
Ljiljana Jeremic, Daniela Mileva, Andreas Albrecht, Pia Wolfger
Borealis Polyolefine (Austria)

21. Structural correlation of branching estimation with mechanical, optical and thermal characteristics of mLLDPE
Sangeetha Karthikeyan, Virendra Kumar Gupta
Reliance Industries (India)

22. Processing-Dependent Polymer Chain Orientation In HDPE Pipes After Biaxial Drawing In The Solid-State
Ralf Kleppinger[1], Ajay Taraiya[2]
[1]DSM Material Science & SABIC Technology Center (The Netherlands), [2]SABIC Technology Center (The Netherlands)

23. Novel approaches to compositional analysis of mixed polyolefins for recycling applications
Pia Klingenberg[1], Nigel D.J. Visser[2], Floris J.A. Gerritsen[2], Jan-Hendrik Arndt[1], Robert Brüll[1]
[1]Fraunhofer Institute LBF (Germany), [2]Veridis Technologies (The Netherlands),

24. Electrifying the world of polyolefins: exploring the electrical properties of these versatile materials
Dirk Lellinger
Fraunhofer Institute LBF (Germany)

25. GPC-IR analysis of PET and PE-PET blends, a new application field of filter-based IR detector
Esther López, Alberto Ortín, Benjamín Monrabal
Polymer Char (Spain)

26. *Supporting the sustainability of polyolefins by developing analytical methods for recycled materials*
Esther López, Alberto Ortín, Benjamín Monrabal
Polymer Char (Spain)

27. Revealing non-reproducibility in the synthesis of LLDPE using high-temperature size exclusion chromatography coupled with an infrared detector (HT-SEC-IR5)
Hamza Mahmoud Aboelanin[1], Subrajeet Deshmukh[1], Jan-Hendrik Arndt[1], Stepan Podzimek[2], Tibor Macko[1], Robert Brüll[1]
[1]Fraunhofer Institute LBF (Germany), [2]Pardubice University (Czech Republic)

28. Characterization of chemical composition distribution of ethylene-1-hexene copolymers, which form solution at room temperature
Tibor Macko[1], Subrajeet Deshmukh[1], Jan-Hendrik Arndt[1], Youlu Yu[2], Masud Monwar[2], Robert Brüll[1]
[1]Fraunhofer Institute LBF (Germany), [2]Chevron-Phillips Chemical (USA)

29. Effect of SCBs on Mechanical Performance of Pipe Grade HDPE Exposed to Chlorinated Water
Susan Mantell[1], Andrew Hagen[1], Ebuka Ezugwu[1], Mrinal Bhattacharya[1], Alberto Ortín[2], Esther López[2]
[1]University of Minnesota (USA), [2]Polymer Char (Spain)

30. Reduction of solvent consumption in polyolefin characterization techniques
Nuria Mayo, Laura Santonja, Alberto Ortín
Polymer Char (Spain)

31. Moving from TCB to oDCB in CRYSTEX QC
Francisco Samper, Jesús Montesinos, Pilar del Hierro, Alberto Ortín, B. Monrabal
Polymer Char (Spain)

32. Automated measurement of intrinsic visosity of synthetic polymers using new versatile automated instrumentation
Alba Cárdenas, Pilar del Hierro, Olivier Boyron, Alberto Ortín
Polymer Char (Spain)

33. Application of Machine Learning on Estimation of Propylene Polymerization Conditions in a Two-Reactors System
Jirayu Pornjaturawit, Siripon Anantawaraskul
Kasetsart University (Thailand)

34. A combined SSA – NMR - HT 2DLC approach to elucidate compositional differences in impact PP materials
Sara Ronca, Joep Vanderfeesten, Claudiu Melian, Miguel Cordova, Anthony Ndiripo
SABIC Technology & Innovation (The Netherlands)

35. Mathematical modeling of High Temperature Thermal Gradient and Solvent Gradient Interaction Chromatography (HT-TGIC and HT-SGIC) of Polyethylene and Ethylene/1-Olefin copolymers
Worapath Sirithong[1], Siripon Anantawaraskul[1], Subrajeet Deshmukh[2], Jan-Hendrik Arndt[2], Robert Brüll[2], João B. P. Soares[3]
[1]Kasetsart University (Thailand), [2]Fraunhofer Institute LBF (Germany), [3]University of Alberta (Canada)

36. Fast evaluation of process stabilization by means of online-rheology
Bernd Steinhoff, Hans Kothe, Elke Metzsch-Zilligen, Robert Brüll
Fraunhofer Institute LBF (Germany)

37. Characterization of POE fractions by Cryo-TREF
Qiansu YIN
ExxonMobil Asia Pacific Research & Development Co. Ltd. (China)

38. Identification of Polyethylene degradation at high gas pressures using cross fractionation chromatography
Jana Zimmerman, Michael Fischlschweiger
Univ. Clausthal (Germany)