



PPS Newsletter

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November 2013 Information to Polymer Processing Society Members

PPS-29 International Conference, in Nuremberg, Germany, a huge success

Our Annual International Conference, PPS-29, took place in Nuremberg, Germany, in July 15-19, 2013. The venue of the meeting was the superb Nuremberg Exhibition and Conference Hall. The meeting was organized under the superb direction of Prof. Dr.-Ing. Volker Altstaedt and the Neue Materialien Bayreuth GmbH. This 5-day International Conference, the premier event of PPS, brought together about 700 people from around the world, all involved in the polymer processing field. There were 8 plenary talks, 62 keynote, a total of 621 abstracts from 55 countries, (342 oral and 271 posters). Most people came from Germany (36%), followed by Japan, Austria, Brazil, etc. There were 14 general symposia and 8 special ones. Prof. S. Ray, the Morand Lambla Awardee 2013, as well as the representative of the James L. White Innovation Awardees for 2013, Dr. Roland Hingmann, presented their innovative research results. Prof. Altstaedt and his team worked very hard in putting together an excellent and stimulating scientific program. All important sessions on polymer processing were covered in the meeting, while several plastics companies were represented for fruitful collaboration with the Conference attendees. In keeping with the famous Bavarian vitality and culture, the meeting also offered many exciting cultural events and excursions, while the banquet featured local beer and superb food in a very old and historic beer hall.



Prof. Volker Altstaedt, organizer of PPS-29, kicks off the meeting in Nuremberg, Germany.



PPS President, Prof. Ica Manas-Zloczower, declares open the PPS-29 meeting in Nuremberg, Germany.



Prof. Ray (middle) receives the Lambla award amid Prof. Mosto Bousmina (left), chair of the awards committee, and PPS President, Prof. Ica Manas-Zloczower.



Officers of PPS and awardees during the banquet. From left: Bousmina, Kikutani, Ray, A. Thuemen and R. Hingmann (JLWhite awardees), Manas-Zloczower.



Bavarian music during the banquet gave impetus in the celebrations.



The people who were instrumental in making PPS-29 such a grand success.

The PPS-2013 Asia-Australasia Regional Meeting, December 4-7, 2013 in Mumbai, India, gets under way

The 2013 Asia-Australasia Regional Meeting of PPS will take place in Mumbai, India, on December 4-7 (website <http://www.pps2013mumbai.com/>). The Conference venue is the Ramada Powai Hotel and Convention Center in Mumbai, which guarantees all the necessary details for a successful meeting. The venue is located only 6 km from the Mumbai International Airport and 10 km from the domestic airport. The PPS-2013 Organizer, Prof. Anup Ghosh, aided by IIT-Mumbai and IIT-Delhi, and the Polymer Processing Academy in Mumbai, is working very hard to make this event a truly memorable one, in line with the previous PPS-25 organized by him in Goa. The scientific program includes conventional processing technologies, sustainable processing, morphology and structure development, nanocomposite processing technologies, rheology and process modeling and simulation, among others.



Mumbai and its exciting coastline in western India is the site for the 2013 Asia-Australasia Regional Meeting of PPS.



Another view of Mumbai, site of the 2013 Asia-Australasia Regional Meeting of PPS.



The conference venue for PPS-2013 is the Ramada Powai Hotel in Mumbai.

The PPS-30 International Conference, June 8-12, 2014 in Cleveland, Ohio, USA, is celebrating 30 years of PPS

The 2014 International Conference of PPS will take place in Cleveland, Ohio, USA on June 8-12 (website <http://www.pps30.com/>). The Conference venue is the Renaissance Hotel, which will guarantee a top modern and generous atmosphere. The hotel is centrally located in Cleveland, only steps away from Terminal Tower and Public Square, and with direct train access from Cleveland Hopkins International Airport. The PPS-30 Organizers, Profs. Sadhan Jana and Joao Maia, are putting in their best efforts to organize a memorable conference with scientific quality and a splendid social and cultural program.

PPS-30 promises to maintain a good balance of programs to serve the attendees from academia and industry. PPS-30 attendees will receive updates on conventional processing technologies and should be ready to embrace the discoveries of new materials and emerging nano- and micro-scale processes in the areas of flexible electronics, soft materials for implants, aerogels, and additive manufacturing.

The conference focuses on more than 15 technical topics and will host 6 plenary speakers, two award lectures, two honorary sessions, two memorial sessions, and at least 30 keynote lectures. Honorary sessions are scheduled for Han Meier, Don Paul, Zehev Tadmor. Memorial sessions are scheduled for the late Professors Xi Xu and Marino Xanthos.

The City of Cleveland is located on the southern side of Lake Erie. It was founded in 1796, has an area of 82.47 square miles, and has a population of close to 400,000. The full program and further information on all topics (hotel, travel, public transport) are available on (<http://www.pps30.com/>).



Map of USA, showing Cleveland, the site of PPS-30, which is located in Ohio State, northern USA.



The Cleveland skyline. The city offers exciting places and museums to visit.



The Renaissance Hotel, venue for PPS-30.

Future PPS Conferences

In its continuing effort to be a truly international society, PPS strives to have meetings every year in different parts of the world. The following list of upcoming meetings is a good indication of these efforts.

2014 Conferences

International Conference (PPS-30), Cleveland, OH, USA, June 8-12

Conference Chairs: Profs. Jana, Maia

For information visit: <http://www.pps30.com/>

Europe/Africa Conference PPS-2014, Tel Aviv, ISRAEL, October 19-23

Conference Chair: Prof. Kenig

2015 Conferences

International Conference (PPS-31), Jeju Island, KOREA, June 7-11

Conference Chair: Prof. J.K. Kim

For information visit: <http://www.pps-31.com/>

Europe/Africa Conference PPS-2015, Graz, AUSTRIA, September 21-25

Conference Chair: Prof. Holzer

2016 Conferences

International Conference (PPS-32), Lyon, FRANCE, July 15-20

Conference Chair: Prof. A. Maazouz

Asia/Australasia Conference PPS-2016, Chengdu, CHINA, October 1-7.

Conference Chair: Prof. Qi Wang

Other Meetings of Interest to PPS Members

2014

**AERC 2014, The Annual European Rheology Conference
April 8-11, Karlsruhe, GERMANY**

For information visit: <http://rheology-esr.net/events/aerc-2014-karlsruhe/>

SPE-ANTEC® 2014

April 27-May 1, Las Vegas, Nevada, USA

For information visit: <http://www.4spe.org>

13th International Symposium on Bioplastics, Biocomposites & Biorefining: Moving towards a Sustainable Bioeconomy

May 19-24, Guelph, Ontario, CANADA

For information visit: <http://www.isbbb.org/home/>

6th Pacific Rim Conference on Rheology

July 20-25, Melbourne, AUSTRALIA

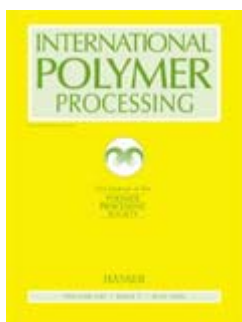
For information visit: <http://www.cvent.com/events/6th-pacific-rim-conference-on-rheology/event-summary-90217231d3074d5f82a1841b92aa1e7e.aspx>

86th Annual Meeting of the Society of Rheology

October 5-9, Philadelphia, PA, USA

For information visit: <http://www.rheology.org>

IPP Journal – All Previous Issues Now Available on Line



All issues of IPP from its inception in 1985 are now available on-line at <http://www.polymer-process.com>. To download papers from this site, use your PPS membership number. In response to PPS member requests, papers in IPP will now have a DOI number, as well as a Hanser document number, which allows quick access to a paper for the on-line journal website.

New PPS Executive 2013-2015

In the PPS-29 Nuremberg meeting the new executive of PPS was elected. The new president is Prof. Giuseppe Titomanlio (Salerno, Italy). The other officers are: Sati Bhattacharya, President-Elect (Melbourne, Australia), Ica Manas-Zloczower, Past-President (Cleveland, OH, USA), Evan Mitsoulis, Secretary (Athens, Greece), M. Cengiz Altan, Treasurer (Norman, OK, USA), Mosto Bousmina, Member-at-large (Rabat, Morocco), Takeshi Kikutani, Member-at-large (Tokyo, Japan), Andy Hrymak, IPP Editor-in-Chief (London, ON, Canada), Musa Kamal, PPP Editor-in-Chief (Montreal, PQ, Canada). Also: John Vlachopoulos, Membership Chair (Hamilton, ON, Canada) and Miko Cakmak, Webmaster (Akron, OH, USA).

The International Representatives of PPS, 24 in number, are:

Volker Altstaedt (Germany), Sebastiao Canevarolo (Brazil), Phil Coates (UK), Jose Covas (Portugal), Anup Ghosh (India), Jean-Marc Haudin (France), Clemens Holzer (Austria), Ibelwaleed Hussein (Saudi Arabia), Hiroshi Ito (Japan), Sadhan Jana (USA), Toshitaka Kanai (Japan), Samuel Kenig (Israel), J.K. Kim (Korea), Shih Jung Liu (Taiwan), Yusuf Menciloglu (Turkey), Paula Moldenaers (Belgium), Hussein Nazockdast (Iran), Luiz Pessan (Brazil), Gerrit Peters (The Netherlands), Hans-Joachim Radusch (Germany), Petr Saha (Czech Republic), Krisda Suchiva (Thailand), Utti Sundararaj (Canada), Qi Wang (China).

AWARDS Announcement

The Polymer Processing Society is proud to announce two awards meant to encourage and financially assist young researchers working in polymer processing research programs to attend and present a paper at the Polymer Processing Society International Conference.

Polymer Processing Society Graduate Travel Award

For two graduate students, preferably PhD students with research area related to the society's scope.

Eligibility:

- Graduate student from various institutions around the world, who will be attending the Polymer Processing Society Annual Meeting.
- At least one year into a graduate degree program and working on polymer processing related research.

Polymer Processing Society Young Researcher Travel Award

For up to two young researchers who have completed his/her PhD within 6 years of Dec 31, 2013.

Eligibility:

- A young researcher from various institutions around the world, who will be attending the Polymer Processing Society Annual Meeting.
- Must be within 6 years of PhD graduation date.

Fields of Study: Polymer Engineering and Science, Chemistry or Chemical Engineering, Materials Engineering and Science, Physics, Mechanical Engineering, and related fields to Polymer Processing

Value: Up to \$1,500 for each awardee to travel to the Annual Meeting of the Polymer Processing Society

Application:

- CV/Research accomplishments (CV is required)
- Research abstract of paper to be presented at PPS (*abstract required*—give abstract ID if available)
- Support letter from supervisor (*letter from supervisor required indicating their endorsement and that they will cover any additional expenses beyond \$1500 to allow the student to travel to the conference with all normal expenses paid*)
- Academic merit (*post-secondary transcripts required—may be scanned*)
- Please send to Prof. U. Sundararaj, University of Calgary via pps-award@ucalgary.ca

Deadline: November 30, 2013

Interesting Books Published in 2012 and 2013

(compiled by John Vlachopoulos, PPS Membership Chair)

M. Kontopoulou (Editor) “Applied Polymer Rheology”, Wiley (2012), 354 pages.

It includes chapters on the role of rheology in polymer processing, additives for melt fracture control, branched polyolefins, fiber suspensions, nanocomposites, wood plastic composites, block copolymers in external fields, reactive systems, pastes, thermotropic liquid crystalline polymers, and electrorheological fluids.

O. S. Carneiro and J. M. Nóbrega (Editors) “ Design of Extrusion Forming Tools”, Smithers Rapra (2012), 300 pages.

Very few books focusing on extrusion equipment and process design have been published in the past. This book includes chapters on design of pipe dies, flat film and sheet dies, blown film dies, profile dies, calibration/cooling systems, flexible dies, rotating mandrel dies, and an introduction to rheological fundamentals and thermal properties relating to extrusion. There are detailed presentations on mathematical modeling and modern computational methodologies, combined with practical know-how.

G. A. Campbell and M. A. Spalding “Analyzing and Troubleshooting Single-Screw Extruders”, Hanser (2013), 777 pages.

While prior books on single-screw extrusion are based on barrel rotation physics, this book focuses on screw rotation and discusses in detail the differences between the two approaches. Several realistic case studies are presented, with actual screw dimensions, rheological properties of polymers, operating conditions, calculated and experimental results, and numerous suggestions and hints for fault diagnosis, troubleshooting and process optimization.

J. M. Dealy and J. Wang “Melt Rheology and its Applications in the Plastics Industry”, Springer (2013), 282 pages.

This is the second edition of a book first published in 1990 by J. M. Dealy and K. Wissbrun, and of much broadened scope. It starts off with rheological fundamentals, discusses linear and nonlinear viscoelasticity with an easy to follow tensorial development of various constitutive equations, measurement techniques, and the role of rheology in polymer processing.

Polymer Processing in Vietnam

(Edited version of a report submitted to the PPS executive committee by Prof. Bui Chuong)

Polymer processing (including both plastics and rubbers) is one of the most developed branches of industry in Vietnam. The most important areas of polymer processing include:

- Modification (physical and chemical) of plastics and rubbers.
- Utilization of domestic fillers for plastic and rubber, including nanofillers.
- Improving the properties of plastics in tropical conditions.

Below are some leading organizations in Vietnam.

1. Institute of tropical technology - Vietnam Academy of Science and Technology (ITT)

Address: 18 Hoang Quoc Viet, Hanoi, Vietnam

Head of Institute: Prof. Thai Hoang (e-mail: p2@itt.ac.vn)

Website: <http://itt.ac.vn/en/bvct/id95/Department-of--Physico-Chemistry-of-Non-metallic-Materials/>

In the ITT, various fields of tropical technology are investigated. Particularly, problems of polymer processing and the behavior of plastic materials in tropical conditions are studied in the Department of physico-chemistry of nonmetallic materials.

2. Institute of Chemistry - Vietnamese Academy of Science and Technology

Address: 18 Hoang Quoc Viet, Hanoi, Vietnam

The Head of Laboratory of Polymer Technology: Asst. Prof. Do Quang Khang (e-mail: cnpolyme@ich.vast.ac.vn)

Website: <http://www.vienhoahoc.ac.vn/Main.aspx?MNU=209&Style=1>

3. Key Laboratory for Polymer and Composite Materials - Hanoi University of Science and Technology

Address: 1 Dai Co Viet, Hanoi, Vietnam

Head of Laboratory: Prof. Bui Chuong

The main research directions of Laboratory are:

- Preparation and application of “green” composite materials from thermoplastic (PP, PE, PLA) and thermosetting resin (epoxy, unsaturated polyester) reinforced with natural organic fillers, fibers (bamboo, jute, coconut).
- Physical and chemical modification of natural rubber (NR), preparation blends of NR with some synthesis rubbers (EPDM, CR).
- Study on preparation and properties of nanocomposites from TP, TS resins, NR with inorganic (nanoclay, SiO₂) and organic (nanocellulose) nanofillers.

The website of Laboratory is now under construction.

4. Plastic and Rubber Technology Center

Located in Ho Chi Minh City, Vietnam

Director: Mr. Truong Van Long (e-mail: tvlong_ptc@kcm.fpt.vn)

This center is newly equipped with good machine and testing equipment. Their target is to develop new plastic processing methods. However, until now their main activity is testing plastic and rubber materials.

Although the number of scientific organizations in the field of polymer processing in Vietnam is still modest, the results of their research have met with high evaluation from the industry. In the above mentioned organizations, the number of contracts with companies is growing, both in material processing and technical consultation.

NJIT's Marino Xanthos Passed Away at 67



Marino Xanthos passed away on June 27, 2013. He was born in Athens, Greece, and studied Chemistry at the Aristotle University of Thessaloniki (B.Sc. 1968) before moving to Canada to study at the Department of Chemical Engineering and Applied Chemistry at the University of Toronto, M.A.Sc. (1970) and PhD (1974). His doctoral thesis was on mica-reinforced composites under the supervision of Professor Ray T. Woodhams. He was Manager, R&D and Technical Services, at Marietta Resources International Ltd. (a subsidiary of

Martin Marietta Corp.), in Boucherville, QC, Canada (1975-1980). He served first as Adjunct and later as Research Professor of Chemical Engineering at Stevens Institute of Technology, Hoboken, NJ (1980-1995). While at Stevens, he also served as Academic Advisor of the overseas M.S., undergraduate and technician programs in Plastics Engineering at the Algerian Institute of Petroleum. Since joining NJIT in 1995 he had held various academic and administrative positions, and at the time of his death he was Professor and Associate Provost for Graduate Studies.

His research interests were polymer blends, composites and foams, reactive polymer processing, processing/structure/properties relationships, and plastics environmental issues. He was author/co-author of more than 250 publications, more than 40 book chapters, editor/co-editor of four books including “Reactive Extrusion” and “Functional Fillers for Plastics” and holder of 9 US and Canadian patents. He was first the Editor and then the Executive Editor of *Advances in Polymer Technology*, 1990-2010. He served as regular technical consultant since 1987 to companies such as Arkema (France), Colgate-Palmolive,

Roche Diagnostics, AT&T, Shell Chemical Co. and Cytec. He received the Harlan J. Perlis Research Award (the highest research award of NJIT) in 2003 and the Heinz List Award for outstanding achievements in polymerization reactions and devolatilization technologies given by the Society of Plastics Engineers at the SPE-ANTEC in Orlando, in 2010. He was a Fellow of SPE and served as USA International Representative of PPS for several years.

Next Newsletter – May 2014

If you have comments on how to improve this newsletter or want to share some information in the next one, please contact the Newsletter Editor Prof. Evan Mitsoulis at mitsouli@metal.ntua.gr. The next issue of the Newsletter is due in May 2014.