



# PPS Newsletter

[www.tpps.org](http://www.tpps.org)

May 2017

Information to Polymer Processing Society Members

## The PPS-2017 Europe-Africa Conference, June 26-29, 2017 will be held in Dresden, Germany

The 2017 Europe-Africa Conference of PPS will take place in Dresden, Germany, on June 26-29 (website <http://www.pps2017dresden.de/>). The Conference Center of the Deutsches Hygiene Museum will be the venue, which is a superb world-class place for such a conference. The PPS-2017 Organizer, Prof. Udo Wagenknecht (IPF), is putting in his best efforts to organize a memorable conference with scientific quality and a splendid social and cultural program.

PPS-2017 will maintain a good balance of programs to serve the attendees from academia and industry. It will provide cutting-edge research results and the latest developments in the field of polymer engineering and science. The thematic range will comprise conventional processing technologies as well as materials-based macromolecular research. General Symposia and a series of Special Symposia will offer a forum for many oral and poster presentations. Further highlights will be the Plenary Lectures given by speakers from academia and companies focusing on topics from the academic science and global challenges for industrial polymer engineering. A splendid social program will accompany the conference.

Dresden, capital of the eastern German state of Saxony, is distinguished by the celebrated art museums and classic architecture of its reconstructed old town. Completed in 1743 and rebuilt after WWII, the baroque church Frauenkirche is famed for its grand dome. The Versailles-inspired Zwinger palace houses museums including Gemäldegalerie Alte Meister, exhibiting masterpieces of art like Raphael's "Sistine Madonna." The river Elbe runs through the city offering beautiful scenery on a boat trip.



Map of Germany, showing Dresden, the site of PPS-2017 Europe-Africa Conference.



A beautiful site of Dresden with the Elbe River passing through the city.



The Opera House of Dresden, Germany.

## The PPS-33 International Conference, December 10-14, 2017 will be held in Cancun, Mexico

The PPS INTERNATIONAL CONFERENCE is usually organized in late spring or early summer and the regional in the fall. For 2017 the Executive Committee of the PPS decided to organize the PPS-33 International Conference in December 10-14, in Cancun, Mexico, due to the very pleasant weather at this time of the year (start of the high tourist season).

The website of the conference is <http://www.pps-33.com>. The Conference Center of the Grand Fiesta Americana, Coral Beach, Cancun, will be the venue, which is a superb world-class place for such a conference. The PPS-33 Organizer, Prof. Octavio Manero (UNAM), is making every effort to organize a superb conference with scientific quality and a splendid social and cultural program.

The general symposia are: Extrusion processes, Injection molding, Process modeling and simulations, Blow molding, thermoforming and rotomolding, Recycling and environment friendly processes, Fiber, membranes and barrier polymers, Mixing and compounding, Polymer blends and alloys, Polymer nanocomposites and nanotechnology, Polymer composites, Biopolymers and natural fibers, Polymer foams and films, Rubber and elastomers, Rheology and Rheometry, Morphology and structure development, Reactive processing.

The special symposia are: Advanced processing technologies, Automotive and medical applications, Additive technology, Soft matter applications to polymer processing.

The plenary speakers are: 1. M. Okamoto, Toyota, Japan; 2. L. Zhang, Beijing University of Chemical Technology, China; 3. E. Brito de la Fuente, Fresenius-Kabi, Germany; 4. Chul B. Park, University of Toronto, Canada, 5. M. Farah, Braskem, Brasil; 6. J. M. Fernández, Teknopellets, S.A. de C.V., México.

Cancun is not only an internationally well-known place for beach and sun activities, but also it is a city of culture and conventions, industrial and scientific, surrounded by ancient Mayan sites, impressive landscape and natural beauties. It is a site where people from all over the world come and meet.



Map of Mexico and the Yucatan peninsula (right), showing Cancun, the site of PPS-33 International Conference.



A beautiful site of Cancun with many hotels by the ocean.



The sandy beach (tens of kilometers long) just behind the PPS-33 venue.

## Other Meetings of Interest to PPS Members

### 2017

29 Oct - 3 Nov

AIChE Annual Meeting

Minneapolis Convention Center, Minneapolis, MN, USA

<https://www.aiche.org/conferences/aiche-annual-meeting/2017>

8 Oct - 12 Oct

89th Society of Rheology Meeting

Denver, United States - A. Grillet - - [lbirtco@umche.maine.edu](mailto:lbirtco@umche.maine.edu) -

[www.rheology.org/sor/annual\\_meeting/2017Oct](http://www.rheology.org/sor/annual_meeting/2017Oct)

8 Oct - 10 Oct

1st European Symposium on Nanofluids (ESNf2017) ►  
Lisbon, Portugal - S.M. Sohel Murshed - - esnf2017@fc.ul.pt -  
esnf2017.campus.ciencias.ulisboa.pt

2 Oct - 6 Oct  
3rd International Conference on Rheology and Modeling of Materials (ic-rmm3 2017) ►  
Miskolc-Lillafüred, Hungary - L.A. Gomze - - femgomze@uni-miskolc.hu - www.ic-rmm3.eu

24 Sep - 29 Sep  
Complex Motion in Fluids 2017 ►  
Cambridge, United Kingdom - E. Lauga - - complexmotion2017@damtp.cam.ac.uk -  
complexmotion2017.damtp.cam.ac.uk

17 Sep - 22 Sep  
Multiscale Materials Modeling Symposium (as part of EUROMAT 2017) ►  
Thessaloniki, Greece - T. Karakasidis - - thkarak@civ.uth.gr - euromat2017.fems.eu

## Lambda Award winner for 2017 is Bryan Vogt of the University of Akron, Ohio, USA

The Lambda Award will be given at PPS-33 in Cancun, Mexico, to Prof. Bryan Vogt.



**Dr. Bryan Vogt** grew up near Madison, Wisconsin, USA, and was inspired at a young age to explore the wonders of chemistry by *Once Upon a Christmas Cheery, In the Lab of Shakhshiri* (presented by Prof. Bassam Shakhshiri, Dept. of Chemistry @ UW-Madison). He received his B.S. in Chemical Engineering from Michigan Technological University in 1998.

During his undergraduate studies, he was fortunate to have the opportunity to help Prof. Julia A. King set up her laboratory for examination of carbon-filled composites. This early exposure to polymer compounding and testing laid the foundations for his independent work in polymer processing.

As an NSF graduate research fellow, he then worked with Prof. Jim Watkins at UMass-Amherst for his PhD studies in examination of the phase behavior of polymers swollen by supercritical fluids. He received his PhD in Chemical Engineering for UMass in 2003 after receiving a National

Research Council Postdoctoral Assistantship to work with Dr. Wen-li Wu in the Polymers Division at NIST in Gaithersburg, MD.

At NIST, he worked with a variety of companies to address measurement needs associated with thin films and interfaces, most notably understanding the fundamental limits of chemically amplified photoresists for the microelectronics industry.

In 2006, he joined the faculty of chemical engineering at Arizona State University as an Assistant Professor and received the NSF CAREER award during his tenure at ASU.

In 2011, he moved to the Department of Polymer Engineering at the University of Akron. His research interests focus on self-assembly and interfacial phenomena with a focus on how these structures can be used for fundamental understanding of critical phenomena in emergent technologies. Specific applications of interest are biobutanol recovery, ice prevention, next generation battery technologies, robust adhesives, and preventing traumatic brain injuries with

mechanically responsive soft materials. He has over 120 peer reviewed publications with an h-index of 29.

## **JLWhite Innovation Award for 2017 Goes to Prof. Phil Coates, FREng, Director of the Polymer Interdisciplinary Research Centre, University of Bradford, UK**



The James L White Award will be given at PPS-33 to Phil Coates for the development of solid phase orientation processing routes which are exploited in the manufacture of products with greatly enhanced properties.

Prof. Coates has exploited solid phase processing of polymers (at temperatures above  $T_g$  but below  $T_m$ ), to attain stable, molecularly oriented structures with significant, controlled improvement in modulus, tensile strength, thermal conductivity, creep resistance, impact resistance, diffusion behaviour and drug elution. His work from the 1970s, when he invented the polymer die-drawing process, to the present has established the excellent team in the Polymer IRC at Bradford as the leaders in solid-phase polymer orientation with extensive journal publications, the research book in this area (PPS series), a range of patents with collaborators, and a large industrial (including BP Chemicals, Bridon International, Dow, Sinopec, Sabic, Smith & Nephew, Arterius) and government research contract portfolio. The Polymer IRC research led by Phil has been commercialised in macro to micro products, including highly stable building materials exploiting controlled cavitation with orientation (via a Dow spin out company in the USA, Eovations LLC); suitcases (CURVTM e.g. Samsonite); and high precision arterial stents (Arterius Ltd); with other products such as shape memory tissue fixations and drug-eluting implants in development.

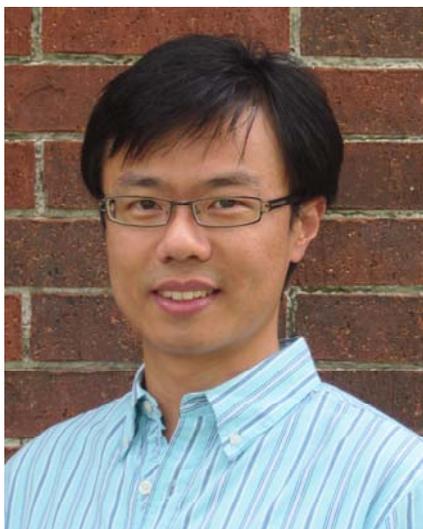
His research has developed fundamental understanding of the mechanics of solid-phase deformation behaviour of polymers, with new constitutive relationships and physical modelling used to achieve molecular-related understanding of deformation and feed computer modelling and control of structure. This has underpinned inventive steps in the design and implementation

of batch and continuous processes, and these die-drawing process technologies have been transferred to industry at both large and small scales, and also to academy, the latter via Royal Society Newton support for in-situ x-ray beam line studies of die drawing structure development in a joint international research laboratory in Changchun, China. This forms part of the highly successful Science Bridges China (2009 on) advanced materials platform formed and led by Prof. Coates, with over 200 leading Chinese and UK academics.

Phil is a Fellow of the Royal Academy of Engineering and Fellow of the IMechE and IoMMM, winner of the Netlon Award, the Swinburne Award, the Tianfu Friendship Award and Sichuan International Science Cooperation Award. He is Chief Editor of the IoMMM international journal, *Plastics Rubber & Composites: Macromolecular Engineering*.

## **Early Career Award for 2017 goes to Prof. Jiahua Zhu of University of Akron, OH, USA**

The Early Career Award will be given at PPS-33 in Cancun, Mexico, to Prof. Jiahua Zhu.



Dr. Jiahua Zhu joined the Department of Chemical & Biomolecular Engineering at the University of Akron in 2013 as an Assistant Professor. Dr. Zhu received his Ph.D. degree of Chemical Engineering from Lamar University in 2013 and received a Master's degree in Chemical Engineering from Nanjing University of Technology (2009) and a Bachelor's degree in Applied Chemistry from Yangzhou University (2006).

Dr. Zhu has coauthored more than 100 peer-reviewed journal articles, three book chapters and three patents. His work has been cited more than 4000 times with an h-index of 37. Dr. Zhu has actively served on the Materials Science & Technology Society, Minerals, Metals & Materials Society (TMS) and the American Institute of Chemical Engineers as symposium organizer and session chair since 2011, and served as reviewer for more than 40 scientific journals.

Dr. Zhu was awarded the Chinese Government Award for Outstanding Self-Financed Students Abroad, Young Leader Development Award from Functional Material Division of TMS Society. Dr. Zhu's current research interests cover the fundamental study of multifunctional polymer- and carbon-based nanocomposites and explore their applications in emerging fields such as thermal management, catalysis, lubrication, etc. His research efforts have been recognized through the NSF-CBET, ACS-PRF and Center for Tire Research.

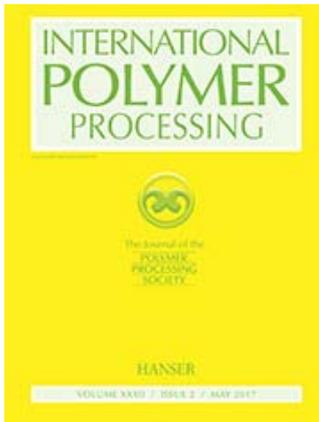
## **PPS Member Offers on Publications from Hanser**

(by Mark Smith, Senior Editor, *Plastics Technology*, Hanser)

Did you know that your PPS membership entitles you to several offers and privileges on publications from Hanser? Well, just take a look at the list below.

- **Free Subscription to *International Polymer Polymer Processing***

The renowned journal of the Polymer Processing Society, *International Polymer Processing* (IPP), is available to PPS members as a free personal (single-user) subscription.



Full details for how to register as a member for the online edition can be found here:

<http://psfebus.allenpress.com/eBusPOPR/PUBLICATIONS.aspx>

You will get access to all issues of IPP since its inception in 1985, via the user-friendly interface of the Hanser eLibrary. To know when the latest issue is available, just sign up for e-mail alerts via the “My Profile” link at the top of the Hanser eLibrary Web page.

If you have problems registering for the Hanser eLibrary, please contact Kristin Grosskopf ([kristin.grosskopf@hanser.de](mailto:kristin.grosskopf@hanser.de)).

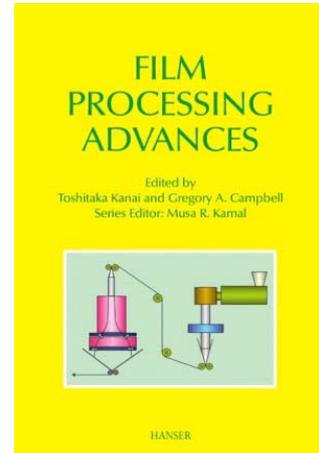
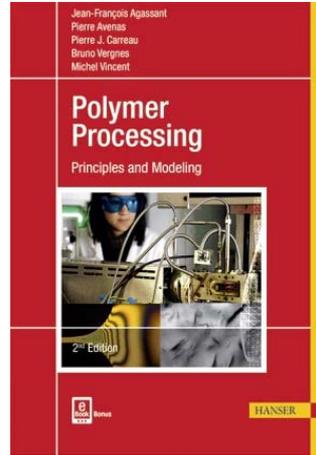
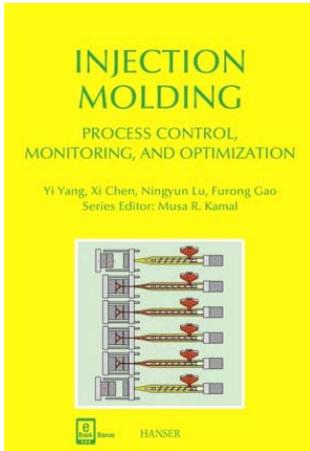
- **Discounted Institutional Subscription to *International Polymer Processing***

Want to help your colleagues in your institution to get access to IPP, and also get a discount for your library on the institutional subscription price? Your institution (university, company, etc.) can get a generously discounted subscription by virtue of your membership. Just contact Yvonne Hacker ([yvonne.hacker@hanser.de](mailto:yvonne.hacker@hanser.de)) for full details.

The screenshot shows a web browser window displaying the Hanser eLibrary website. The URL in the address bar is 'www.hanser-elibrary.com/loi/ipp'. The page features a blue header with the 'HANSER eLIBRARY.COM' logo. Below the header is a navigation menu with links for 'Home', 'Books', 'Journals', 'For Librarians', 'For Booksellers', and 'For Business Customers'. The main content area is titled 'International Polymer Processing' and includes a 'Quick Search' box. On the left, there is a section for 'Volume 32, Issue 2 (May)' with a thumbnail of the journal cover and a '&lt; Previous' link. The central section, 'About International Polymer Processing', describes the journal's focus on original research and peer-reviewed articles. Below this is an 'Available Issues' section listing '2010-2017' and 'Volume 32 (2017) Issue 2, May' with page numbers 'pp. 149 - 266'. On the right, a 'Top 4 Articles' section lists recent research papers such as 'Drag and Pressure Flow in Twin Screw Extruders' and 'Influence on Product Quality by pVT-Optimised Processing in Injection Compression Molding'.

- **30% Discount on All Books at Hanser Publications**

PPS members can get a discount of **30%** on ALL Hanser books available from [www.hanserpublications.com](http://www.hanserpublications.com), including the Progress in Polymer Processing series from the PPS. Just enter the code **PPS3014** at the checkout.



Hanser is proud to be publisher of the journal and books of the Polymer Processing Society.

## **Next Newsletter – November 2017**

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](mailto:mitsouli@metal.ntua.gr). The next issue of the Newsletter is due in November 2017.