

#### THE SOCIETY OF PLASTICS ENGINEERS

Nov/Dec 2016

2016 SECTION AWARDS





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#### MEETING LOCATION: Olde Mill Inn

Fieldstone Room (board meeting) Morris Room (dinner) 225 Morristown Rd. (Rt. 202) Basking Ridge, NJ 07920

THURSDAY DECEMBER 8, 2016 4:00 PM Board Meeting 5:30 PM Networking 6:00 PM Dinner and Speaker Presentation Member Non-Member Advance (before Noon 12/7/16) \$40 \$45 At Door \$45 \$50 Prosp. Mbr/Sig.Other/Guest \$25 \$15 Unempl. Mbr. Students (show I.D.) \$15 R.S.V.P. to: Mr. Pete Hayles, Jr.

peterhayles11@gmail.com 732-569-2368

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DECEMBER 8, 2016

### TEXTURE ANALYSIS OF FORMULATIONS CONTAINING RHEOLOGY MODIFIERS

Daphne Benderly, PhD., Kristina Kannheiser, Zsolt Szabados, Presperse

The initial choice to purchase a personal care product can be influenced by word of mouth, advertising, brand recognition, packaging, and many other factors. The repeat purchase, however, depends on whether the consumer enjoyed the product performance, fragrance, and "feel" (texture). One of the ingredients in a personal care product that can affect texture is the rheology modifier used. Many rheology modifiers used in creams and lotions are polymers, either natural or synthetic.

The term "texture" is not well defined. To date it is not characterized in the personal care industry and there are no standardized methods. This talk will give some background on texture analysis and how it differs from measurement of viscosity. The types of rheology modifiers studied were two of the most commonly used in the personal care industry: carbomer and acrylate/C10-30 alkyl acrylate crosspolymer. Texture profiles of synthetic rheology modifiers in a model gel system will be discussed.

continued on page 2

UPCOMING MEETING DATES						
Dec. 8 , 2016	Section Meeting					
Jan. 19, 2017	Section Meeting					
Feb. 16, 2017	Section Meeting					
March, TBD	Meeting at Rutgers					
April 20, 2017	Section Meeting					
May/June, TBD	Awards Meeting					

# PRESIDENT'S MESSAGE



Hello again fellow members of the Palisades-New Jersey Section. Our season is well under way after a hugely successful Vinyltec conference in September, and our first technical dinner meeting on October 20th. I'd like to extend my thanks to our

own Vikram Bhargava for speaking at our October meeting, and for sharing with us his expertise and vast experience in the proper selection of materials, tooling and processing methods required for successful injection molding of precision parts utilized in the hand-held electronics industry.

We hope to build upon this momentum with a well-attended dinner meeting on December 8th, where we will welcome Dr. Daphne Benderly of Presperse, a global supplier of innovative technical solutions and raw materials used in the Cosmetics and Personal Care Industry. Daphne and her colleagues hope to enlighten us to the "not so well defined" fields of texture and rheology modification as they apply to the cosmetics industry. Finally, I'd like to report on what I perceived to be the best K show in ten years. I was in Dusseldorf from October 18 until October 22 for the first half of K 2016, the largest plastics trade show in the world. K 2016 drew some 230,000 visitors from more than 160 countries, and provided 3,285 suppliers the opportunity to promote their newest technologies on this global stage. Show organizers tell us that attendance was up by over 5% as compared to K 2013. To me, this is a clear indication that our industry is strong and healthy, so let's put all that political uncertainty behind us a strive towards greater days ahead.



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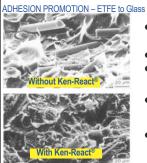
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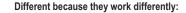
Daphne Benderly is a Senior Applications Scientist at Presperse. She has over 20 years experience in industrial R&D, among others in the personal care, specialty chemicals, and plastics industries. Daphne received her doctorate in Materials Engineering from the Technion - Israel Institute of Technology; MS in Macromolecular Sciences from Case Western Reserve University; and BS in Mechanical Engineering from Massachusetts Institute of Technology. Daphne is a member of SPE and SCC (Society of Cosmetic Chemists). She is on the Board of Directors for the SPE Applied Rheology Division, and has been involved in the organizing committee of several SCC technical symposia. The most recent symposium was on the topic of rheology and product development.

Zsolt Szabados is the director of R&D at Presperse. He has extensive experience in Product & Application Development and Technical Service with a strong focus on Personal Care and Cosmetic Science. Zsolt received an MBA in Marketing and International Management from Northeastern University; an MS in Pharmaceutics, with a concentration in Topical Dermatological and Cosmetic Applications from Long Island University; and a BS in Chemistry & Physics from Babes-Bolyai University, Romania.

Kristina Kannheiser is a Senior Formulation Chemist at Presperse. She has 7 years of formulating experience in the cosmetic industry. Prior to Presperse, Kristina worked in contract manufacturing creating finished products for the skin, color, and sun protection markets. Kristina holds a MS in Cosmetic Science from Fairleigh Dickenson University and a BS in Chemistry from Richard Stockton University. Currently, she is an adjunct professor at Rutgers University teaching Fundamentals of Personal Care Science at the graduate level.

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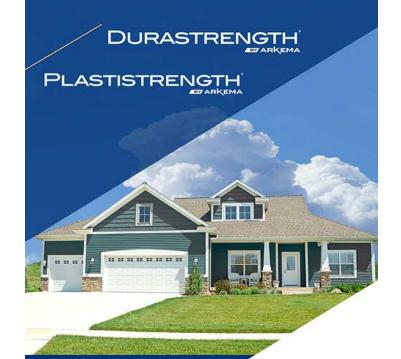


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# **RUTGERS STUDENT CHAPTER NEWS** JAMIE WOODING, PRESIDENT OF RUTGERS STUDENT CHAPTER OF SPE

The Rutgers SPE Chapter has been very involved this semester with outreach to new students. We started the new school year off with a bang by tabling at the Engineering First-Year Kick-off to reach out to first-year School of Engineering students. With this event, we had the opportunity to educate students in who we are and what we do, and to spark interest in polymer engineering and materials science. After garnering interest at the Engineering First-Year Kick-off, we held our Annual Injection Molding Demonstration as our introductory event. Prior to the demonstration, we held a Meet and Greet for our older members to interact with the newer prospective members, bonding over pizza and a love for materials. The subsequent demonstration was led by Arya Tewatia and chapter President Jamie Wooding as they worked to showcase the importance and versatility of injection molding in the polymers industry. Students learned thoroughly about the steps involved in the process and even received tensile bars as souvenirs.

In October, we hosted Alyson Fick, a staff manager and outreach coordinator for the ASTM International D20 Plastics Committee, and Mark Lavach, a Fellow for ASTM International, to give a talk on the importance of standardization in the plastics industry. Many students really enjoyed this event, as they had never learned about the different aspects of establishing material standards. Alyson Fick also discussed the importance of getting involved as a student with ASTM. She described to students the ways they can get involved and benefit from an ASTM membership, including the importance for job applications and career development to be engaged in your applied

# SECTION NEWS

The following members joined our section in July or later. Join us in welcoming them to our group. If you joined the section between January and July and would like to be recognized in the newsletter with a short bio and contact information, please send your information to the newsletter editor.

#### New professional members to our section are:

- ★ Bill Novak (wnovak@leistritz-extrusion.com) is product manager at Leistritz and also serves as project/sales/ service manager and process engineer. He has been in the industry for 28 years and joined Leistritz Extrusion in 2015.
- ★ Mike Bickley, Coperion
- ★ Evan Dawood, Coperion
- ★ Wylie Royce, partner at Royce Associates
- ★ Roy Sorenson, engineer at C&K Plastics

#### New student members in our Rutgers Chapter are:

- ★ Justin Hendrix
- ★ Joshua Tedesco
- ★ Vincent Chee (vc261@scarletmail.rutgers.edu) is a new SPE member at our Rutgers student chapter. He is majoring in Packaging Engineering and expects to graduate in May 2017. He is currently a packaging engineering co-op at Janssen Pharmaceuticals, and also finished a co-op at Mondelēz International. Vincent's career goal is to deliver sustainable value-driven products in the pharmaceutical/fast-moving consumer goods industries.

field, which resonated powerfully with the students looking for jobs and internships in the coming months.

As the semester comes to a close, the Rutgers Chapter will be holding a "Make Your Own Eraser" event to once again attract younger students and a De-Stress Laser Tag joint event with The International Society for Optics and Photonics, SPIE. We may even be able to squeeze in an end-of-semester talk as well. So overall, we've had an enjoyable fall semester that we will certainly be looking to build upon next semester. As always, we thank Len Krauskopf and the SPE New Jersey - Palisades Section for your continued support and dedication, and for helping us to improve as a student chapter.



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