



**SOCIETY OF PLASTICS ENGINEERS – CLEVELAND SECTION**

February 2018 Vol. 61 No. 6

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

Editor: [Craig Potter](#)

## **Upcoming Meeting: Monday, February 12, 2018**

### **A Case Study of Plastic Material Selection for Medical Device Design, Prototype, and Manufacture**

Presented by Dr. Shengqiang Gao, Manager of Polymer Core, Medical Device Solutions, Cleveland Clinic

Dr. Gao, Senior Principal Research Engineer will introduce the function of the Polymer Core group at Medical Device Solutions department at the Cleveland Clinic, review the material selection process in general and provide a few specific examples of projects that were done in the past.

#### **Location:**

Hilton Garden Inn  
[8971 Wilcox Dr.](#)  
[Twinsburg OH](#)

#### **Agenda:**

4:30 Board Meeting  
5:30 Social / Networking  
6:00 Dinner at Hilton Garden Inn  
7:00 Presentation by Dr. Shengqiang Gao

**Price:** Non-members \$35 / Members/Guests - \$30 / Retired - \$25 / Student - \$10

#### **Reservations:**

Please submit your reservation noon on **Wednesday February 7** to [mail@cmd-tip.com](mailto:mail@cmd-tip.com) or call Dan Crist at [440-227-5424](tel:440-227-5424). Please be sure to include the company affiliation of each attendee and any dietary restrictions.

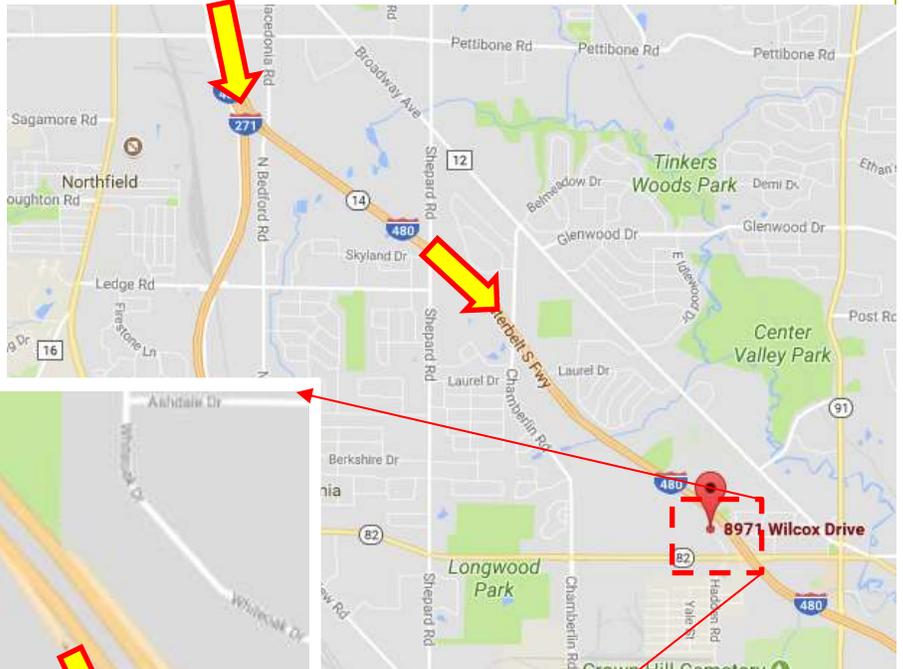
#### **Quick Clicks:**

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[SPE Board – Officers](#)  
[SPE-Cleveland Website](#)

## ***Directions to November 13<sup>th</sup> Meeting***

### **Directions from Cleveland:**

Take exit 36 (Aurora Rd) from I-480  
Turn west on Aurora Rd  
Turn right on Wilcox  
Hilton Garden Inn is at end of road  
past Blue Canyon.



## ***About the Speaker - Dr. Shengqiang Gao:***



The Polymer Core in Medical Device Solutions (MDS), Lerner Research Institute, Cleveland Clinic, is dedicated to providing polymer- and biomaterials-related medical device design and prototyping support and services to research projects. The Core, which Dr. Gao manages, is staffed with experts of varied backgrounds and years of medical device development experience. Dr. Gao holds a Ph.D. degree in polymer materials science and is experienced in many disciplines. He has designed and prototyped numerous medical device projects, including catheters, balloons, prosthetic valves/rings, total artificial heart, artificial kidney, and so on. He has received innovation awards multiple times in the past. More than 15 patent applications have been filed in this period. Seven of them have been granted to this point.

## *Sponsor Appreciation:*

Thank you to our sponsors from the Cleveland Section SPE.

We would like to take this opportunity to thank our sponsors for the 2017-2018 season. Their support is invaluable to the mission of our section and enables us to provide programs and educational benefits. Again, thanks for your support.

To our section members, please reach out to our sponsors when looking for products or services for your business.

## **Notes from Jan 8<sup>th</sup> SPE Cleveland-Akron Technical Meeting:**

### SAE Event at Cleveland Auto Show:

Cleveland and Akron Board of Directors have each agreed to send two board members to the upcoming Society of Automotive Engineers event at the Cleveland Auto Show in February in order to solicit new members for our organizations.

### TopCon Planning Committee:

The TopCon Planning Committee has been formed by the Cleveland section Board to identify opportunities for our section to support national and regional technical conferences as held by SPE divisions and other specialty groups, in the Cleveland area. The Committee has the following members - J. Blayne, T. Waddle, D. Meade, C. Potter, R. Raleigh and D. Crist.

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## President's Message:



Greetings to all our members and industry professionals. This month we have initiated further efforts within the leadership of the Cleveland Section on one main front - Local TopCons. We now have two SPE TopCons coming to Cleveland in the near future.

The Injection Molding Division's IMTECH has chosen Cleveland as it's venue for this year, 2018. Additionally, the Color and Appearance Division RETEC event will be in Cleveland in 2019. Both events offer an opportunity to expose SPE divisions to our beautiful and vibrant city, and to allow our local section to build their rapport the various divisions. Along with a positive reputation, we have a lot to offer the other divisions in SPE.

To bolster this effort, we have founded a new TopCon committee that will be dedicated to the ongoing process of organizing and planning the various TopCon activities regardless of other changes in the Board. This will include efforts toward the already dedicated events, and courting future events. Please keep an eye out for the upcoming events, and we hope to see many local members at them to learn a few things, meet some new people, and show the rest of SPE how active and supportive we are.

Sincerely,  
Ron Raleigh  
President SPE - Cleveland Section

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## ***Minutes of the Board of Directors Meeting held January 8<sup>th</sup>:***

### **In Attendance:**

Dan Crist (House), John Sovis (Treasurer), Rik Keeley (Program), Craig Potter (Advertising, Newsletter), Bob Opalko (Secretary), J. Blayne (Councilor), R. Raleigh (President), T. Waddle, D. Meade (Education, Awards)

### **Minutes**

#### **New Business:**

The Society of Automotive Engineers (SAE) meeting is scheduled on February 26, 2018 as part of the AutoShow at the IX Center. B. Opalko and C. Potter plan to attend and set up a table to promote the SPE.

D. Meade and R. Raleigh volunteered to be judges at the upcoming Science Fair on 3-13-18.

Dr. H. Ishida is the point contact at CASE, and he is interested in the Cleveland Section of the SPE holding meetings at the university. Members agreed that the Spring tours/speakers are already in place, and perhaps the Fall is a good time to begin this. In this case, he would like the speaker to talk about non-technical aspects of the industry. Dr. Ishida is the founder of the CASE Flame Retardant group, and he is active in PINFA.

Teagan Smith, a senior at Rocky River HS, joined us at the meeting. He will be attending Shawnee State in the fall, majoring in Plastics Engineering. He was active during the networking session, as he is looking for a sponsor for his senior project during May 17-31.

The board established a committee for the upcoming Injection Molding TOPCON (11-6 to 11-8-18).

**Treasurer:** As of January 2018 income has exceeded expenses by \$169.30. Our total assets are \$33,735. Total income is \$2203.

**Advertising:** Nothing new to report.

**Councilor:** The Color and Appearance Division (CAD) has begun planning the 2019 RETEC in Cleveland. Members met prior to the board meeting to discuss the details.

**House:** No report.

**Membership:** Li Nie reported that for the last 2 months, 7 members dropped out, and 6 new members joined, leaving an active member total at 141.

**Education:** D. Meade has contacted Jeremy Stark, the 2017 scholarship winner. Mr. Stark will be attending Purdue University, majoring in materials science, and he will attend the May Awards event.

Eve Vitale will be organizing the PlastiVan program again, and she is working with target schools. This time she is looking for new schools, and will skip Lake Ridge Academy this time, as they have been a target school the last few years.

**Program:** For February 13, 2018, Dr. Gao from the Cleveland Clinic Medical Device Solutions will give a talk entitled, "Plastics Material Selection for Medical Device Design, Prototype and Manufacture". This will be held at the Twinsburg Garden Inn.

# January 8<sup>th</sup> Technical Meeting:

## Adding Capacity in a Challenging Environment, Mr. Ed Hall, Baerlocher USA

Mr. Halls' presentation focused on a recent large capital project at Baerlocher to install a second chemical reactor in their manufacturing facility, while keeping the existing process running. Mr. Hall shared several lessons with us. The need for the project was driven by plant economics, capacity needs, need for redundancy, new market demands both volume and performance and to support a growing PE capacity worldwide.

Some of Mr. Hall's learning included:

- Realize that expectation is the root of all headaches – manage expectations
- Be sure all process engineers and managers understand what products and their performance you intend to make in this expansion
- Train your team to work safely in a construction environment, including contractors
- Be strict with fire watches and other safety rules, PPE, railings, forklifts, trip hazards, etc
- Everything will cost more than you expect, and take longer
- Set the proper expectation both up and down the organization, especially in terms of money and timing
- Communicate intensely within organization and with suppliers, contractors, etc



Click on graphic to jump to website.

*Random shots of attendees and dessert from January 8<sup>th</sup>*



*Random shots of attendees and dessert from January 8<sup>th</sup>*





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## 2017 – 2018 Cleveland SPE Programs (with Akron section)

Meeting	Topic	Speaker	Company	Location
12-Feb-18	Plastics in Medical Field	Dr. Gao Shengqiang	Cleveland Clinic	Hilton Garden Inn-Twinsburg
12-Mar-18	Tooling	Darrell Stafford	Polymer Ohio	Akron Hilton
9-Apr-18	Plastics in Education		SPE	Akron Hilton
14-May-18	Cleveland Section Awards	Ron Raleigh Dennis Meade	SPE Cleveland	tbd

### 2017 – 2018 SPE Cleveland Section Officers and Board of Directors

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## CALL FOR PRESENTATIONS

The SPE Thermoplastic Elastomers Special Interest Group (SIG) & Akron Section invite the submission of abstracts for presentation at the 13th TPE Topical Conference September 18-20, 2018.

*In a change of format, only abstracts and presentations will be required.*

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### **Submission Deadlines:**

Abstract: March 1, 2018

Completed Presentation: July 15, 2018