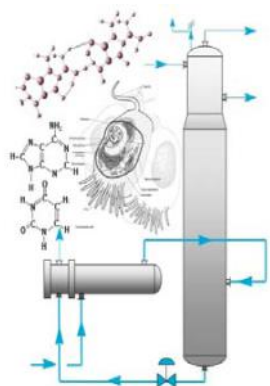


December Newsletter

Chicago Section

www.aiche.org/Chicago

December 2016



Inside this issue:

November Meeting Photos	2
January Meeting Information	3
AIChE Chicago Section Scholarship Info	4
AIChE Constitution Amendment Voting	8
Thiele Award Winner	9
New book published	9
Thiele Award Nominations	11
Upcoming Events	13



Season's Greetings

AIChE CHICAGO DECEMBER SOCIAL

THURS, DEC 8, 2016

5:30–10 PM

POLLYANNA BREWING COMPANY, LEMONT, IL

FOR MORE INFORMATION:

[HTTP://TINYURL.COM/JOJX342](http://tinyurl.com/JOJX342)

*Remember! Renew your AIChE Membership
by 12/31/2016*

<http://www.aiche.org/community/membership/renew>

November Meeting Photos



January Meeting - Save the date!

When: January 20, 2017

Prof. John Roberts, "Materials for Biodegradable Electronics"; Join with ACS



ABSTRACT

A remarkable feature of modern integrated circuit technology is its ability to operate in a stable fashion, with almost perfect reliability and without physical or chemical change. Recently developed classes of electronic materials create an opportunity to engineer the opposite outcome, in the form of devices that can dissolve in water to yield completely benign end products. The enabled applications include zero-impact environmental monitors, 'green' consumer electronics and bio-resorbable biomedical implants - none of which can be achieved with technologies that exist today. This presentation describes foundational concepts in chemistry, materials science and assembly processes for bioresorbable electronics, in 1D, 2D and 3D architectures, the latter enabled by approaches that draw inspiration from the ancient arts of kirigami and origami. Wireless sensors of intracranial temperature, pressure and electrophysiology designed for use in treatment of traumatic brain injury provide application examples.

BIOGRAPHY

Professor John A. Rogers obtained BA and BS degrees in chemistry and in physics from the University of Texas, Austin, in 1989. From MIT, he received SM degrees in physics and in chemistry in 1992 and the PhD degree in physical chemistry in 1995. From 1995 to 1997, Rogers was a Junior Fellow in the Harvard University Society of Fellows. He joined Bell Laboratories as a Member of Technical Staff in the Condensed Matter Physics Research Department in 1997, and served as Director of this department from the end of 2000 to 2002. He then spent thirteen years on the faculty at University of Illinois, most recently as the Swanlund Chair Professor and Director of the Seitz Materials Research Laboratory. In Sept 2016, he joined Northwestern University as the Louis Simpson and Kimberly Querrey Professor of Materials Science and Engineering, Biomedical Engineering, Mechanical Engineering, Electrical Engineering and Computer Science, Chemistry and Neurological Surgery, where he is also the founding Director of the newly endowed Center on Bio-Integrated Electronics. His research has been recognized by many awards including the Baeckeland Award (ACS, 2007), a MacArthur Fellowship (2009), the Lemelson-MIT Prize (2011), the Smithsonian Award for American Ingenuity in the Physical Sciences (2013), and the Society of Engineering Science Eringen Medal (2014). He is a member of the National Academy of Engineering, the National Academy of Sciences and the American Academy of Arts and Sciences.

AIChE Chicago Section Scholarship Fund

My fellow AIChE members;

Someday we shall all want to retire and enjoy the fruits of our labors. Toward that goal, we need to plan and train our replacements to follow our example. You can do that with little effort by encouraging the next generation of engineers to enter and continue their education in our field and practice chemical engineering as a professional.

For this purpose, the AIChE Chicago Section has established a Scholarship, available to currently enrolled or planning to enroll in an ABET credited college or university of their choice in a chemical engineering discipline. The scholarship is also available to the immediate family of AIChE Chicago section members.

By contributing to the principal of the Scholarship Fund, which is separate from the section operating funds, you can help us make that happen. We, as a technical society, need to continually find and encourage the talented students to become engineers and bring them into our profession. Small contributions now will pay big dividends in the future.

Please consider a donation to the AIChE Chicago Section Scholarship Fund by:

- a. funding immediate need,
- b. contributing to the endowment of the scholarship program, or
- c. both.

Students or parents affiliated with the AIChE Chicago local section (students attended a high school or attending an ABET credited college or university in the serving area and participant parents in the local section events) can apply for this scholarship. The total amount of the scholarship for each individual is a maximum of \$2000 over four (4) years of enrollment, which needs to be renewed annually.

To contribute, please make your check payable to AIChE Chicago Section Scholarship Fund, and mail it to:

AIChE Chicago Section Scholarship Committee

13964 Doral Lane

Homer Glen, IL 60491

aichechicago@gmail.com

or:

Visit <http://www.cvent.com/d/j4q7yv/4W> and click on the "Donate" button, and make your contributions using a credit card.

When making a contribution, please provide your name and address. The section will send a thank you letter to document your contribution to a AIChE, a nonprofit organization under the IRS code at section 501(c)3 (Tax Deductible).

Thank you in advance for your consideration and contribution.

Very truly yours,

Azita Ahmadzadeh

AIChE Chicago Section Scholarship Development Team

Scholarship Program

I. PURPOSE

One of the purposes of the Chicago Section as stated in the By-Laws is to foster engineering education. The scholarship program is one way this is accomplished.

II. ELIGIBILITY

Eligibility for a scholarship is limited to persons who are:

1. Undergraduate or graduate student membership shall not be sufficient qualification for either the student member or a member of their family, unless they have attended at least 4 meetings in one AIChE-Chicago programming year (Sept-May).
2. Closely related to an AIChE Chicago Section member in good standing at the time of application. "Closely related" means: A) Children and grandchildren, whether natural, adopted, stepchild, or ward; B) Parents; or, C) Legal spouses.
3. High school seniors, who are applying for the scholarship, should demonstrate their interest in the chemical engineering practice and discipline.
4. Beginning or currently engaged in a course of study leading to a first degree in an ABET (or equivalent) accredited chemical engineering program.
5. The recipient of no more than (3) AIChE Chicago Section scholarship awards prior to this year's application.

III. THE AWARD

1. Each award shall be in an amount of \$2000 for those who are in a Chemical Engineering program over four (4) years.
2. The maximum number of awards to be made in any AIChE Fiscal Year (FY) shall be set by the Board of Directors (BOD) no later than March 31 of each FY.
3. The Selection Committee shall advise the BOD of their recommendations and the BOD shall have the authority to approve all or reduce the number of awards.

IV. APPLICATION

1. Application for the scholarship must be made using the application form and in the manner prescribed by the Selection Committee.

2. Each application packet is required to include a personal statement requesting the scholarship award as well as academic and personal references.
3. Applications must be received by the AIChE Chicago Section not later than March 1st for the next academic year.

V. SELECTION

1. The AIChE Chicago Section Scholarship award is intended to be competitive.
2. Evaluation of applicants will be based on the information provided in the application materials.
3. Applicants will be ranked according to selection committee evaluation criteria, which are mainly based on the applicant's credentials.

VI. NOTIFICATION

Notice of any award, or decline to award, will be sent by USPS first class mail or electronic mail to all applicants no later than May 30th.

VII. ADMINISTRATION

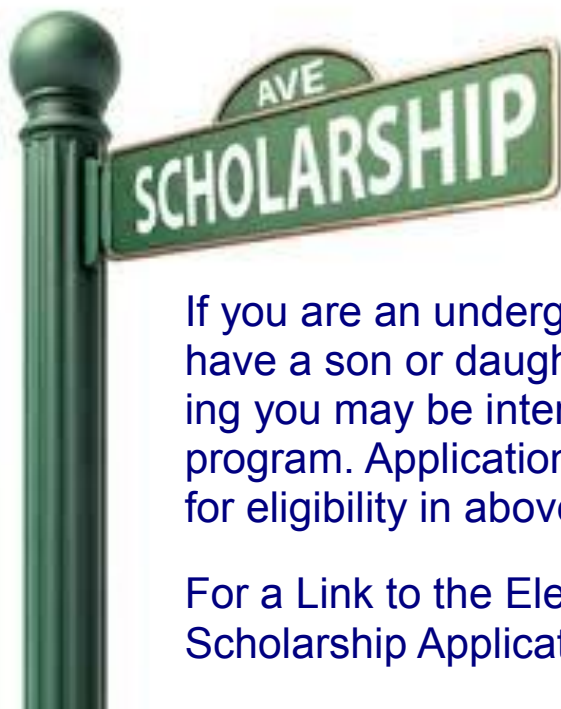
1. There shall be a Selection Committee of five members established and maintained for the purpose of evaluating applicants and determining awards to be made.
 - A. The AIChE Chicago Section Chair shall be a member, and shall appoint the Selection Committee, and preside over the Selection Committee meeting.
 - B. The Immediate Past-chair shall be a member, and serve as the Secretary of the Selection Committee.
 - C. The AIChE Chicago Section Board of Director (BOD) shall annually select, by majority vote, one section member to replace the longest serving member of the Selection Committee.
2. No member selected by the BOD shall serve more than three (3) consecutive years, except to serve an unexpired term.

VIII. RULES

1. The AIChE Chicago Section Secretary will verify the eligibility of each applicant.
2. All scholarship awards, including renewals, will be made competitively, based on the information provided in the application.

3. In the event an award is declined, the Selection Committee may, at its option, make an award to the applicant having the next highest evaluation.
4. All AIChE Chicago Section scholarships must be used in the first academic year following the award.
5. The awards made shall be presented, on behalf of the recipient, to the ABET accredited engineering institution. If the studies or admission of the recipient of an AIChE Chicago Section Scholarship are delayed for any reason the Chair of the section must be notified within 30 days. Failure to do so may disqualify the applicant for the following years.
6. The AIChE Chicago Section Scholarship is to be independent of any and all other awards, scholarships, and/or grants-in-aid accruing to the benefit of the student.
7. In making any award the committee shall not discriminate against any individual on the basis of any legally protected status under the applicable laws of the United States of America.
8. All recipients and alternates are subject to these same rules.

Attention Students and Parents!



If you are an undergraduate chemical engineering student or have a son or daughter that plans to study chemical engineering you may be interested in the Chicago sections scholarship program. Applications are due **March 1st**. Please see rules for eligibility in above pages.

For a Link to the Electronic Version of the AIChE Chicago Scholarship Application Form, Click on the Link Below:

<http://form.jotform.us/form/42814483647159>

AIChE Constitution Amendments Election

The election for the Constitution amendments is coming to close on **December 12th**. If we don't receive votes from at least 20% of eligible members, this election will not be valid. That means that your colleagues' votes—and the expense of the election--will have been for naught. It also means that there will have to be another Constitution election and AIChE will incur the cost once again. Please help us save your dues dollars by voting.

The 20% requirement demonstrates why AIChE's Board recommended amending the Constitution in the first place. People are just not voting in association and national elections as they did in the past. Most of AIChE's sister societies have addressed the declining trend in voting by changing their Constitution amendment requirement to approval by 2/3's in favor of all votes cast. The Board recommends we do the same.

It would be a tremendous help if you could reach out to your AIChE colleagues and friends to encourage them to vote. Below is the link to the election website where you'll need to enter your last name and member number. AIChE is also sending emails that include a one-click feature in which your name and member number are automatically entered so you can vote immediately.

All of the Constitution changes are available at:

www.aiche.org/amendments.

Vote online at

<http://www.aiche.org/about/governance/constitution/proposed-amendments>

Votes received by **December 12, 2016** will be entered in a drawing to win an Apple Watch®.



PROFESSOR SATISH PARULEKAR WINS THE 2016 ERNEST W. THIELE AWARD

Congratulations to Professor Satish Parulekar, Professor of Chemical Engineering at Illinois Institute of Technology for being awarded the 2016 Ernest W. Thiele award! This prestigious award will be presented to Professor Parulekar at a meeting of the Chicago AIChE Section during the 2016-2017 meeting season.

Professor Parulekar is awarded the 2016 Ernest Thiele Award for his significant original research contributions in chemical engineering, development of educational material for chemical engineers, teaching and leadership and service activities relate to the AIChE and IIT.

Professor Parulekar's early research on using continuous spectral theory showed his mathematical prowess for solving difficult problems. An inquisitive thinker, he moved into biotechnology and made major advances in that area. All the while he continued to publish chemical engineering manuscripts and books, be a popular teacher at IIT, and provide service to our AIChE organization.

The Ernest W. Thiele award is presented annually to a Midwest region member of AIChE who has made outstanding contributions to advance the practice of Chemical Engineering. The award is sponsored by BP, and consists of a plaque and a \$1000 honorarium.

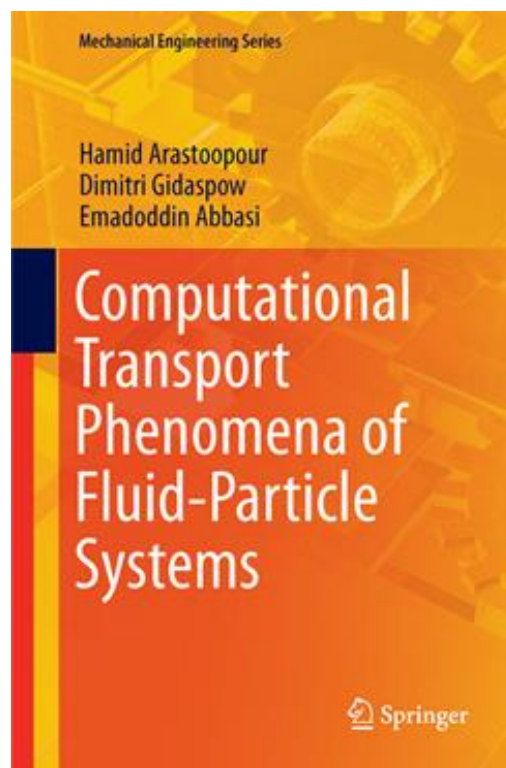
Please join us in congratulating Professor Satish Parulekar on his achievement.

Congratulation to our member

A new publication by AIChE Chicago section members (H. Arastoopour, D. Gidaspow & Emad Abbasi) entitled "Computational Transport Phenomena of Fluid-Particle Systems" is out by Springer.

The book concerns the most up-to-date advances in computational transport phenomena (CTP), an emerging tool for the design of gas-solid processes such as fluidized bed systems.

<http://www.springer.com/us/book/9783319454887>



Ernest W. Thiele Award Recipients

YEAR	RECIPIENT	AFFILIATION	RECOGNITION & ACHIEVEMENT
1983	E.W. Thiele	Standard Oil (Indiana)	Catalysis, Distillation fundamental advances
1985	B.B.Broughton	UOP	Aromatics Separation Processes, adsorptive separation
1986	T.J. Hanratty	Univ. Of Illinois	Advances in Fluid Mechanics
1987	G. Thodos	Northwestern	Physical Property Advances
1988	L.O. Stine	UOP	Petroleum/Petrochemical Processes
1989	D.T. Wasan	IIT	Research and Progress on Separation Processes
1990	R.S. Mah	Northwestern	Chemical Process System Analysis
1992	J.J. Carberry	Notre Dame	Chemical Reaction Engineering research, innovation, and education
1993	R..J. Bertolacini	Amoco	Catalysis research innovations and leadership
1994	J.W. Westwater	Univ. of Illinois	Research in Heat transfer and contributions in teaching
1995	Norman Li	UOP	Pioneering research in membranes and separations
1996	Rathin Datta	Argonne	Original research in metabolic engineering and membranes
1997	Hamid Arastoopour	IIT	Academic leadership and environmental engineering
1998	Arvind Varma	Notre Dame	Fundamental advances in synthesis of materials, catalysis and reactor stability
1999	S. George Bankoff	Northwestern	Heat transfer advances in chemical and nuclear engineering
2000	Henry Linden	IGT (retired)	Leadership of the Institute Of Gas Tech.
2001	Paul Sechrist	UOP	Contributions to computational fluid Mechanics, CCR, and FCC refining processes
2002	Julio Ottino	Northwestern	Research in Chaos Theory and mixing of solids and liquids
2003	Ali Cinar	IIT	Contributions in process modeling, monitoring and control. As an educator championing computers and statistics.
2004	Ted M. Knowlton	PSRI	For his contributions to fundamental and applied research, and his leadership in the fields of fluidization and particulate solids.
2005	Dimitri Gidaspow	IIT	For his fundamental contributions to computational fluid dynamics, multi-phase flow and fluidized bed systems and as an educator.
2007	Lynn H. Rice	UOP	For his fundamental contributions to the petroleum refining isomerization process.

2008 Robert Lyczkowski	Argonne	For Innovative application of multiphase theory and computational fluid dynamics in the areas of nuclear, fossil and biochemical engineering.
2009 Harold Kung	Northwestern	For contributions to understanding catalytic phenomena, design of catalytic structures, and teaching.
2010 J. Peter Clark	Consultant	For leading the development of numerous food products and new food preparation processes, and as a mentor and teacher.
2011 Urmila Diwekar	IIT and V. Institute	For leading the development of uncertainty analysis in processes.
2012 Richard Hoehn	UOP	For leadership and creativity in Hydroprocessing technology
2014 Alan Zagoraia	UOP	For leadership and innovation in hydrogen utilization in refining
2015 Randy Snurr	Northwestern	For advancing nanoporous metal-organic frameworks for gas storage and absorption
2016 Satish Parulekar	IIT	For research in biotechnology, teaching and service to AIChE.

ERNEST W. THIELE AWARD

The Ernest W. Thiele award is sponsored by BP and recognizes the outstanding contributions to our profession by a Midwest region chemical engineer. This award was established by the AIChE Chicago Section and is presented annually to a Midwest region AIChE member. This internationally recognized award consists of an engraved plaque and \$1000 honorarium presented at our sectional meeting.

Nomination forms and additional information can be obtained from the Thiele Committee Chair. Completed nominations are due to the committee chair no later than

May 1, 2017

One of the highest honors a distinguished chemical engineer can receive is our Chicago Section Thiele award. Please consider nominating a deserving engineer for this prestigious award.

Jim Simnick

BP Amoco Complex, J-8

150 W. Warrenville Road, Naperville, IL 60566

Ph 630-420-5936, fax 630-420-4832

email: james.simnick@bp.com

Why Renew Your AIChE Membership?

Renew your membership now to keep learning and growing.

Renew Membership



Stay Connected to 40,000+ international members who take advantage of:

- Subscription to AIChE's flagship publication: CEP*
- Education—Access to e-learning courses and instructor-led training, offering Continuing Educations Units and PDHs
- Access to CareerEngineer—a comprehensive job site tailored to chemical engineers
- Access to the AIChE eLibrary—a wealth of information from Knovel Life Sciences and the McGraw-Hill AccessEngineering Library collections

[View COMPLETE benefits](#)

Visit our website!

Be sure to check out our website to make sure you have the latest information on meetings and events! Miss a meeting? You can even find old newsletters and past events!

If you want to help us improve our website, please give us feedback, or even better, volunteer to help us with the website!



Thank you for being part of AIChE Chicago!

www.aiche.org/Chicago

AIChE Chicago is now on Facebook and LinkedIn!



Like us on Facebook www.facebook.com/AIChEChicagoSection



[Join our group on LinkedIn!](#)

Upcoming AIChE Conferences, Meetings and Webinars

Chicago Section Monthly Meetings

Jan 20, 2017	Meeting Joint with ACS
Feb 28 - Mar 1, 2017	9th Midwest Regional Conference , UIC, Chicago

AIChE Conferences

Jan 8-11, 2017	7th ICBE—International Conference on Biomolecular Engineering , San Diego, CA
Feb 18-19, 2017	Engineering Solutions for Sustainability: Materials and Resources 3 , Denver, CO
Feb 28 - Mar 1, 2017	9th Midwest Regional Conference , UIC, Chicago
Mar 12 - 15, 2017	5th International Conference on Accelerating Biopharmaceutical Development , Scottsdale, AZ
Mar 19 - 22, 2017	7th International Conference on Bioengineering and Nanotechnology , Chicago, IL

AIChE Webinars

Dec 14, 2016	Distillation Trays as Mechanical Equipment
Dec 21, 2016	Distributed Ammonia Synthesis
Jan 11, 2017	A Survival Guide to Chemical Engineering and a Guided Tour of Elementary Principles of Chemical Processes
Jan 19, 2017	Next Generation IT for Next Generation Manufacturing

Officers and Contact Information

Chair	Tom King
Chair Elect	Janet Werner
Chair Programming	Beth Carter
	Robert Tsai
Secretary	Nick Guzman
Treasurer	Rong Jiao
Directors at Large	Dan Rusinak
	Dennis O'Brian
	Ellen Kloppenborg
House Committee	Bindi Patel
	Asmara Soomro
Newsletter Editors	Azita Ahmadzadeh azita.ad@gmail.com
	Janet Werner Janet.werner8@gmail.com

AICHE CHICAGO SECTION

American Institute of Chemical Engineers
Chicago Section
13964 Doral Lane
Homer Glen, IL 60491
aichechicago@gmail.com

We are on the web
www.aiche.org/Chicago

We want you for AIChE-Chicago!

We need your help!

How many opportunities can you find to learn project management, delegation and leadership skills for free? Becoming an officer in the Chicago Section of AIChE is such an opportunity. While you're learning new skills, your local network grows. Just about all of us are either undergoing a career change, contemplating a career change, or are wondering if our career will be changed for us. Volunteering with AIChE is a way to add skills and accomplishments to your resume.

aichechicago@gmail.com

<http://www.aiche.org/community/sites/local-sections/chicago/announcements/volunteerism>

Submitting Articles to AIChE Columns

We welcome email submissions for our monthly newsletter. Commercial announcements are subject to the fee schedule below. News stories, editorials, technical or career related non-commercial contributions are always welcome with no charge. We consider job postings, announcements of for-fee training courses, expositions, conferences as commercial. Categorization of announcements is at the sole discretion of the Chicago AIChE Board of Directors. Chicago AIChE may publicize activities of interest to our members by cooperating professional societies and other non-profits without charge.

AICHE Publicity Committee Fees	Academic (non-AICHE)		Company		Recruiters	
	Per Month	Per Year	Per Month	Per Year	Per Month	Per Year
Advertisements (3X3)	100	450	150	675	N/A	N/A
Half-Page (~7"x 4.5")	280	1260	420	1890	N/A	N/A
Job Posting (Size?)	50	225	100	450	250	N/A
Special Sizing	Contact Publicity Committee aichechicago@gmail.com					

For the purchase of a year ad, customers have the option of changing ads/jobs month to month. Online payment can be done using <http://www.cvent.com/d/9cq5pw/4W>

Student and AIChE Member Related Postings are Free.

