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The Chemical Bulletin

A publication of the Chicago Section of the American Chemical Society

ACS Local Section Chicago

In This Issue

ADVERTISERS

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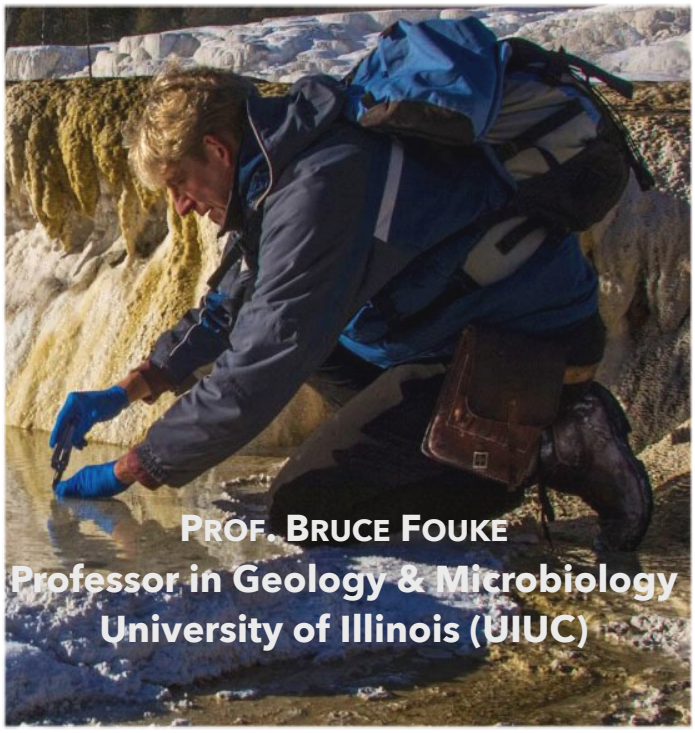
CHICAGO ACS SECTION VIRTUAL PROGRAM MEETING

Thursday, December 10, 2020
7:00–8:30 PM

Please register online at chicagoacs.org to receive meeting link

"UNIVERSAL BIOMINERALIZATION"



ABSTRACT: Living organisms have arisen from 4 billion years of Life-Earth coevolution that has combined non-biological (abiotic) and biological (biotic) controls on mineral deposition (*Biomineralization*). These processes are an essential, unavoidable and ubiquitously distributed force of nature at all scales of time and space. Biomineralization therefore has profound practical implications, ranging from being the key to survival to the cause of extinction. The goal of this presentation is to advance a more comprehensive appreciation for how the complex processes involved in biomineralization play a universal role in addressing the grand challenges facing society regarding the environment, energy, health and space exploration.

Agenda for December Dinner Meeting
Thursday, December 10, 2020

7:00 – 7:05 pm Announcements
7:05 – 7:10 pm Presentation of the Chair's gavel to incoming 2021 Chair
7:10 – 7:15 pm Introduction
7:15 – 8:00 pm Dr. Bruce Fouke – "The Science of Yellowstone National Park"

Speaker Biography: Bruce Fouke is a professor in Geology, Integrative Biology and the Carl R. Woese Institute for Genomic Biology at the University of Illinois Urbana-Champaign. He also serves as Director of the Illinois Roy J. Carver Biotechnology Center. His geobiology research program studies how living and fossil organisms have responded to, and often rise to influence, environmental change via universal biomineralization processes. Projects include studies of climate change recorded in coral skeletons, the emergence of infectious marine diseases, the deep subsurface biosphere, hot-spring thermophile ecology, development of antibiotic resistance, ancient Roman aqueduct hydrology and human kidney stone pathogenesis. You can see more about Bruce Fouke's work on kidney stone research in a video on the May Clinic Heritage Films website: https://history.mayoclinic.org/books-films/heritage-films.php "A World in a Grain of Sand: New Discoveries in Kidney Stones"

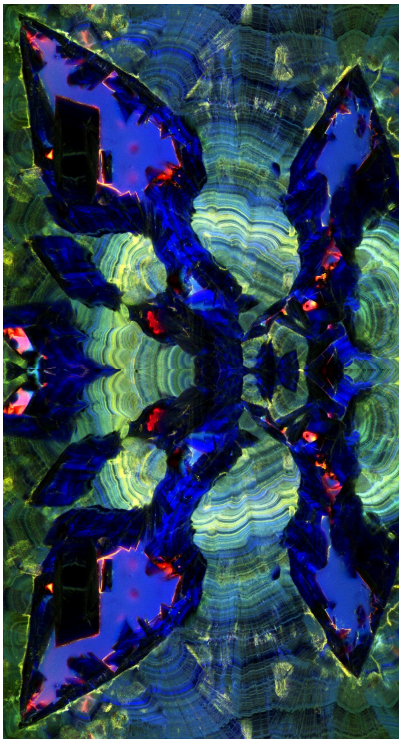


Photo credit: Bruce Fouke (image is doubled for artistic effect)

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Alternate Councilors (3, 2021-23): Mark Cesa, Sherri Rukes, Becky Sanders

Bulletin Information

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KINETICS, THERMODYNAMICS – AND SAFETY!

A "SAFETY FIRST!" MINUTE

A recent issue of *Chemistry World*, a publication of the Royal Society of Chemistry (UK), highlighted the life and work of Leslie Bretherick (1926–2003), creator and founding author of the eponymous book on chemical safety and reactivity, *Bretherick's Handbook of Reactive Chemical Hazards*. This classic reference work, now in its 8th edition, is a comprehensive yet highly readable summary of hazardous chemical reactions involving thousands of different chemical compounds, and even more combinations of chemicals leading to fires, explosions, runaway reactions, personal injury, economic damage, or destruction. The opening paragraph of the article in *Chemistry World* contains the following reflection on a near-miss chemical incident:

> *"It was a reminder of how much the chemistry we do is under kinetic control; we are often blissfully unaware of the yawning thermodynamic abyss that lies just a little beyond our standard reaction conditions. There monsters be."*

What an introduction! The author's reflection provides fertile ground for thinking about **Safety First,** and it evoked numerous memories of my own experiences with "unexpected" chemical reactivity. I'd like to touch just briefly on an additional aspect—or, really, challenge—of chemical safety that came to mind when I read that opening paragraph. We often talk about teaching chemical safety as if it's something separate from teaching chemistry. Educators at all levels discuss and debate how to incorporate chemical safety topics into the chemistry curriculum. My own view is that we will only have truly or successfully integrated chemical safety and chemistry education when we no longer distinguish between the two.

The *Chemistry World* article suggests one possible approach to achieve this synthesis. Kinetic versus thermodynamic control is a standard topic in the chemistry curriculum, everywhere from college prep and general chemistry to organic and advanced physical chemistry. The next time you teach this topic, ground it using an example of real-life chemical stability versus reactivity. Consider a can of gasoline stored in your garage, or the tank of propane on your backyard patio—the heat of combustion of either substance when mixed with oxygen is highly exothermic. What happens, and why, when we descend from the plateau of apparent kinetic stability into the abyss of thermodynamic reactivity?

Stories are an indispensable feature of effective communication. Leslie Bretherick achieved a pinnacle of chemical storytelling with the creation of *Reactive Chemical Hazards*. The American Chemical Society, through its CAS Division, recently committed to ensuring this tradition continues by partnering with the Pistoia Safety Alliance to host and further develop the Chemical Safety Library (CSL). The CSL provides an open-access, fully searchable platform consolidating first-hand information about hazardous chemical reactions encountered in laboratories and other workplaces all across the world. Because the examples in the library are supplied directly by people who witnessed or experienced an adverse event or incident, the information often includes specific details about reaction conditions and factors that led or contributed to the outcome. These details may be crucial in preventing future incidents!

Let's do our part to keep safety at the forefront of our **Safety First!** culture by continuing to share our stories and experiences.

Submitted by Irene Cesa

Letter from the Chair

Back in the February *Bulletin*, I laid out a number of reasons that the Board members gave for being an ACS member. In this very strange year, I wonder which of these became more important:

- *Chemical & Engineering News*
- Gaining skills to meet others (networking)
- Finding new employment opportunities – check out the articles in the May and September issues of the *Bulletin*
- Gaining resources and connections for students – check with the chairs of the K-12 or College Education Committees
- Webinars and keeping up to date – if you've not seen information on these, your Spam filter might be a bit tight!
- Safety – you can find interesting articles put out on this each month at the Board or Dinner Meetings as well as in the *Bulletin*
- Access to world leaders in your field – collaborations
- Fulfills the responsibility to the integrity of the profession
- Offers professional resources such as résumé services and salary calculators:

  https://www.acs.org/content/acs/en/careers/personal-career-consulting/resume-review.html

  https://www.acs.org/content/acs/en/careers/salaries/salary-calculator.html

- Gives leadership opportunities - the Local Section is always looking for people to help out on committees and to chair them
- Teaching young kids (outreach)
- Gives an opportunity to contribute back to society

If I were to guess, many of these reasons found prominence for a number of individuals. It was harder to teach youth this year as we were all quarantined, but Sherri Rukes is still looking for people to record some demonstrations that K-12 teachers can use in their classroom. Most are geared for K-5 so you know you've got the expertise to help out here. You can contact Sherri at chair-elect@chicagoacs.org, or beginning in 2021 at chair@chicagoacs.org.

After hearing Dr. Zhenan Bao deliver her Gibbs Medal address in November, it became evident that it is easier than ever to connect with world leaders in our field. By the way, if you missed her excellent talk, you can find it under the "Events" tab on the Chicago Section website chicagoacs.org. You can also find other recorded talks from the past year at this site as well.

Lastly, the December meeting is another exciting talk ready to be crystallized! This "Universal Biomineralization" talk will be given by Dr. Bruce Fouke from the University of Illinois – Urbana-Champaign. I expect his talk will engage your eyes and your mind as he shows us some beautiful pictures of Yellowstone National Park and tells us the chemistry of what has happened over the last 4 billion years. Be sure to register to get the link at https://chicagoacs.org/meetinginfo.php.

Have yourself some Happy Holidays and please remain safe and healthy!

Sincerely,

Paul Brandt, Chair

pfbrandt@noctrl.edu

UPCOMING EVENTS

For information on future meetings and events please refer to the Section's website chicagoacs.org, Social Media, and future bulletin issues. This issue has more on asterisked (*) events.

HOLIDAY TOYS & DONATIONS – See back page for details on how to contribute

*** December 2, 2020 at 6-7 PM – Panel event with student chapters of Purdue AIChE and UIUC ACS**
*** December 8, 2020 at 10 AM (Central) – JAWSChem (Just Another Webinar Series) for Young Researchers**
April 5 – 16, 2021 – ACS Spring National Meeting, online: 2nd Century of Macromolecular Chemistry
June 6 – 9, 2021 – Great Lakes Regional Meeting (GLRM) – Minneapolis, MN
June 14 – 16, 2021 – 25th Annual Green Chemistry & Engineering Conference, Reston, VA
August 22 – 26, 2021 – ACS Fall National Meeting: Resilience of Chemistry

IUPAC Young Observer Program

APPLICATION DEADLINE : December 18, 2020 at 5:00 pm EST

The International Union for Pure and Applied Chemistry (IUPAC) Young Observer Program fosters interactions with internationally acclaimed scientists in various fields. Young Observers attend meetings of IUPAC Divisions and Standing Committees in their particular areas of interest during the General Assembly and learn about IUPAC activities and projects.

Applications are now open for the 2021 Young Observer Program. The next IUPAC General Assembly and Congress will be held August 13-20, 2021 in Montreal, Canada.

APPLY NOW: Click **here** for more information, including application questions, review criteria, and the link to the application form. Applications are due by the close of business (5 pm) on Friday, December 18, 2020.

The program is open to U.S. scientists and engineers (U.S. citizens and permanent residents) under the age of 45. Applicants are drawn from industry, academia, and national laboratories.

Applicants under 35 will also have the opportunity to be considered for nomination to serve as a U.S. delegate to the International Younger Chemists Network (see next page for more information).

Have questions? Please contact Maggie Walser, PhD (mwalser@nas.edu) with any questions. Dr Walser is Senior Program Officer, Board on Chemical Sciences and Technology of the National Academies of Sciences, Engineering, and Medicine.

This is an ongoing program from the U. S. National Academies. It's an excellent vehicle for providing opportunities for international exposure to young-to-mid-career scientists, from academia and industry. A former IUPAC President (our own Mark Cesa) and the new ACS President-Elect were both Young Observers in past years.

JAWSChem = Just Another (Chemistry) Webinar Series
December 8, 2020 – 11 AM (EST) / 10 AM (CST)

Speakers: Punam Rattu (University of Southampton, UK) • Dr. Ana M. Geer (ISQCH-CSIC, Zaragoza, Spain) • Prof. Julian Silverman (Manhattan College, USA)

JAWSChem is a brand-new chemistry seminar series designed to give a platform to **YOUNG RESEARCHERS** from all walks of life to share their work. Sign up to submit an abstract!

https://jawschem.wixsite.com/home/about-us

From the Editor's Desk

Dear Readers,

For their contributions to this last issue of 2020, I am indebted to the following awesome individuals and teams: Jason Romero, Andrea Twiss-Brooks and the planning committee, Josh Kurutz, Sherri Rukes, Paul Brandt, Fran Kravitz, Tobin Marks, Fraser Stoddart, Ken Fivizzani, Helen Dickinson, Mark Cesa, Bruce Fouke, Helen Free, Irene Cesa, Susan Shih, Milt Levenberg, and Tanya Ivushkina.

Calling all authors and potential authors: Send your concepts or contributions to editor@chicagoacs.org or historian@chicagoacs.org. Once you begin looking at the searchable, archival issues of the bulletin (https://chicagoacs.org/Bulletin_Digitized), you'll be hooked. For 100-year old, fairly ridiculous humor, I can recommend the "Spinthariscope" column; check out also the "Loco Chemical Company" (a favorite of Josh's). More interested in personalities? Then consider researching Dorothy Wrinch, Julius Stieglitz, or your favorite chemist.

Thanks for reading, and enjoy the holidays! ~~ M. E. S. ~~

International Younger Chemists Network

Our Vision

"Connect and empower younger chemists globally"

Our Mission

"The IYCN supports and advocates for younger scientists working across the chemical sciences towards a globally sustainable future"

- IYCN is dedicated to creating an environment where all of those in the **chemical sciences globally** are welcome. We believe that celebrating our differences and what makes us unique will help us to create a more sustainable and inclusive scientific community, and world.
- IYCN strives to make an impact on the UN Sustainable Development Goals (SDGs). We will rely on our diverse membership and essential partner organizations to engage their unique skills, views, and experiences. We can only succeed if early career chemists from all backgrounds and nations have the opportunity to join, network and participate.
- IYCN **will not tolerate discrimination** (read our code of conduct) or bias against any person or group, and pledges to actively speak out against injustice.
- We have reached out to early career chemists from many countries and continue to seek out ambassadors from the underrepresented countries. A platform like IYCN is a route to bridging international borders.
- A truly global network of early career chemists has not been established: in most developing countries national chemical societies do not have key programs for the sustainable integration of students and early career professionals. We hope IYCN can develop into a lasting system to foster growth and mentorship in chemistry.

FOUR PILLARS OF IYCN

COMMUNICATE

COLLABORATE

EDUCATE

MENTOR

2020 ACS President Luis Echegoyen with IYCN members at a reception hosted by ACS during IUPAC2019. Photo by Marilia Valli

Spring National Meeting (April 5-16, 2021) – Abstract submission period is December 16, 2020 to January 19, 2021. New lower fees for the online meeting include: ACS Members, $99; non-members, $149; students, $129; unemployed members and 50-year members attend at no cost. The cost for retired members has not yet been posted.

Gibbs Medal Lecture – Milt Levenberg reported that as of the day before the lecture, 181 people had registered. (Actual attendance was 157 at maximum.)

Exams and Olympiad – Russ Johnson reported that the section's webpages for teacher excellence, ACS Scholarship exam, and Chemistry Olympiad have been updated. The board has decided to offer an exam for two of the scholarships to those who are currently enrolled in a second-year chemistry course; those who are not enrolled are eligible for the 2021 scholarship exam.

Community Activities- Sherri Rukes reports that the American Association of Chemistry Teachers (AACT) has now over 8,000 members. Use of the website's resource page has increased tremendously. The teacher program at the ACS Spring National Meeting will consist of a couple of "Happy Hour" Zoom meetings with trivia, a keynote speaker and time to talk with other teachers.

Outreach - Sherri also reported that the first round of kits (38) were handed out for National Chemistry Week (NCW), and some kits are still available. Wtih help from students at Libertyville High School, over 750 NCW magazines were passed out to neighborhood homes in North Chicago, Zion, Waukegan, Gurnee, Round Lake and Round Lake Beach, areas that might need more support for motivating young people to consider STEM fields.

Younger Chemists Committee – Kudos to YCC on their string of successful events on professional development. There were even prizes! On October 14, Dr. Becky Sanders (North Central College) presented on "how to make your presence known". On November 10, the YCC welcomed Dr. Matthew Grandbois (ACS) who gave a presentation about "managing up" and building strong relationships.

Archives – The holiday message below is from the archives of *The Chemical Bulletin*. Your editor searched for but did not find the date of publication. The word "Christmas", which appeared in first line of the original, has been changed to "the holidays."

As the holidays approach,
The Chemical Bulletin
Wishes its readers
All good things;
That their experiments may all be happy ones,
That their plants may confirm their test tubes,
That they may have the praise of their peers
And the inner satisfaction of a job well done;
That they may in the pursuit of truth
Forget not the pursuit of beauty,
Nor in the pursuit of riches
Forget the virtues of humanity;
That the New Year may bring larger visions
And greater success;
In laboratory and classroom, plant and office.

Nominations Open for 2021
Helen M. Free Award for Public Outreach

Deadline: February 15, 2021

Learn more at: www.acs.org/helenfreeaward

The Helen M. Free Award for Public Outreach recognizes outstanding volunteer achievements in the field of public outreach by a member of the ACS who improves public recognition and appreciation for the contributions of chemistry. This award was established in 1995 by the American Chemical Society Committee on Public Relations and Communications (CPRC) and is presented annually. Winners receive a cut-crystal award and a $1000 prize, to be presented at the ChemLuminary Awards, which will take place during the Fall 2021 ACS National Meeting.

Nominations must be submitted using the Helen M Free nomination form.

Any individual may submit a nomination. Accompanying materials, such as the nominee's resume and seconding letters (maximum of two, but letters are not required), should be **e-mailed by February 15, 2021**, to **HMFreeAward@acs.org**. For more information, contact this email address or call 1-800-227-5558 x4384.

For the purposes of this award, "public outreach" activities are defined as those that reach lay audiences, as opposed to science professionals. The award selection committee will consider such factors as the nominee's personal advocacy and involvement in public outreach initiatives; development or expansions of ideas, materials, and/or resources for volunteer programs; and overall impact on the public. Qualifying activities include lectures, presentations, demonstrations, seminars, symposia, and exhibits; newspaper or magazine articles and interviews; radio and television appearances; and hands-on science activities with children and/or adults. Venues may include schools, libraries, churches, museums, parks, shopping malls, and other public places. Audiences may include civic, fraternal, religious, youth, and professional (non-science) groups. These activities may be local, national, or international.

The award's namesake,**1993 ACS President Helen Murray Free**, is known for her longstanding commitment to public outreach, and was involved in establishing Kids & Chemistry, National Chemistry Week, and numerous other outreach activities, including the International Year of Chemistry in 2011. Dr. Free has given countless talks on the importance of communicating science to the public, and she has personally done more than 100 media interviews on the importance of chemistry to modern society. Now retired, she had a 50+ year career as a clinical scientist—a career that is studded with honors and awards for professional excellence and service to her profession and the community-at-large. She received a B.S. with honors in Chemistry from The College of Wooster in 1944 and an M.A. in management from Central Michigan University in 1978. She received honorary doctorates from both schools.

ACS Photo - https://www.acs.org/content/acs/en/education/whatischemistry/women-scientists/helen-m-free.html

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NEW! Thanks to the efforts of section member Milt Levenberg (and of course our presenters), **VIDEOS OF RECENT MONTHLY MEETING PROGRAMS** can now be found on the Chicago ACS Section website. A list of videos is provided here and at **https://www.chicagoacs.net/videos/index.html** or the section's archive home page at https://www.chicagoacs.net/ and click on the link at the bottom left of the page to get to the list.

2020 Zoom Programs		
May	Sean Casten	A Conversation with a U.S. Representative
June	Dwight Chasar	Chemistry is for the Birds
September	Sherri Rukes	Poly What? Applications of STEM Using Polymers
	Josh Kurutz	125 Years of Chemistry in Chicago
October	Darryl Boyd	Introducing STEM to Elementary-Aged Children
November	Zhenan Bao	Skin-Inspired Electronics

State of the 2020 COVID-19 Pandemic

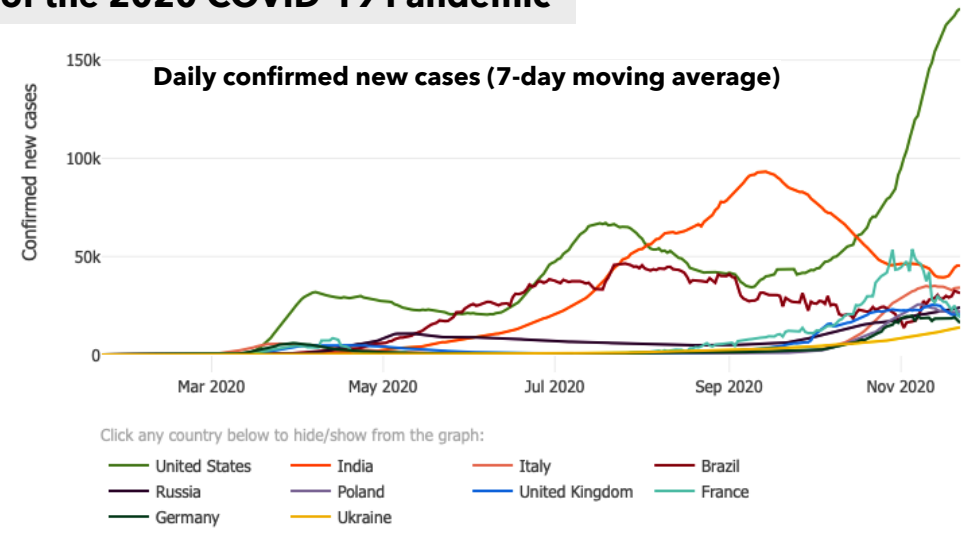
Data as of Nov 23, 2020

1.39 M global total deaths

Graph shows outbreak evolution for the current 10 most affected countries

COVID-19 Dashboard by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University (JHU)

https://coronavirus.jhu.edu/data/new-cases



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I t's due no later than the 15th of the month prior to the edition in which the item is to be published.

T hanks for your business!

That's So Trivial:	Did you know that the phoenix in the ACS logo faced to the left in the early days?	Awesome - I'll use it as an icebreaker at the next Section meeting!

Catalysis researcher John M. Thomas (1932–2020) dies

Sir John Meurig Thomas, the University of Cambridge solid state chemist and specialist in catalysis and nanomaterials, died Nov. 13. He was 87.

To study catalysts and other solids, Thomas advanced the capabilities of transmission electron microscopy (TEM), an analytical tool not commonly used by chemists—especially in the 1970s, when he began this work. Together with coworkers, he developed TEM-based high-resolution electron tomography methods and spectroscopy techniques, using them to reveal the structures and photophysical properties of organic crystals. Thomas also applied those methods and other TEM imaging techniques to analyze nanoporous materials and improve their catalytic properties. For example, his team studied palladium-ruthenium nanoparticles and other bimetallic catalysts held in silica pores. Such materials are effective catalysts for hydrogenating organic compounds in solvent-free reactions.

In related work, Thomas's group designed a bifunctional catalyst for solvent-free synthesis of a nylon precursor. The catalyst, which eliminated the waste by-product generated by the standard industrial process, consists of nanoporous aluminophosphate decorated with redox-active cobalt sites and separate acidic sites containing silicon, magnesium, or zinc. Another major thrust in Thomas's decades-long research career was the development and analysis of single-site and single-atom heterogeneous catalysts. By maximizing the efficiency of costly metals and minimizing waste, these materials are expected to have a major impact on green chemistry and sustainability.

"It was clear from the first time I met John just how passionate he was about microscopy, chemistry, and indeed science in general," says Paul A. Midgley of Cambridge, Thomas's longtime scientific collaborator. He adds that Thomas's "knowledge of scientific literature was immense, and his ability to recollect details of papers was remarkable …. John was an extraordinarily gifted scientist, a generous and inspiring colleague, and friend. He will be greatly missed by everyone who knew him."

Adapted from an article by Mitch Jacoby, Chemical & Engineering News, November 20, 2020. ISSN 0009-2347 Copyright © American Chemical Society.

ACS Local Section Chicago

Members Recall Sir John

Ken Fivizzani recalls: Sir John, who was knighted by Queen Elizabeth II in 1991, received the **Gibbs Medal from the Chicago Section in 1995**. He participated in the Chicago Section's Gibbs Medal Centennial Symposium at the ACS National Meeting in Denver in 2011. The title of his presentation was "Three-Cornered Hat." Shortly after we had sent out invitations to all the living Gibbs Medalists, I was surprised to receive a call from John, who was inquiring about the details of the symposium. He was a most congenial person; we spoke for 30 minutes. He was very proud to be a Gibbs Medal recipient, and I think I recall him telling me that he was the only living international Gibbs Medalist. He was as delightful in person as he was during our phone call.

Tobin Marks (Gibbs Medalist in 2001) recalls: John was a scientific pioneer and scholar of amazing depth and breadth. I fondly remember a taxi ride during a catalysis conference in Florence Italy in which Sir John recited from memory the exact same Tagore poem quoted below.

At the end of a tribute* to the late Max Perutz, Sir John penned these words. "Knowing that the premier academies and scholarly bodies of the world are committed to the restless pursuit of truth and knowledge (as Max was), it is appropriate that I should recite, to end, Song 35 of Tagore's 'Gitanjali'":

Where the mind is without your fear and the head is held high;
Where knowledge is free;
Where the world has not been broken up into fragments by narrow domestic walls;
Where words come out from the depth of truth;
Where tireless striving stretches its arms towards perfection;
Where the clear stream of reason has not lost its way into the dreary desert sand of dead habit;
Where the mind is led forward by thee into ever-widening thought and action —
Into that heaven of freedom … let my country awake.

* Notes and Records of the Royal Society of London, Vol. 60, No. 1 (Jan. 22, 2006), pp 59-65.

Edward A. Knaggs, Stepan Innovator, 98, died August 6 in Deerfield

Edward Knaggs (1922–2020) worked for Stepan Chemical Company for 30 years, attaining the role of Vice President. A futuristic researcher, he authored 35 publications in the technical literature, primarily in the detergent and petroleum industries, including being a coauthor of a chapter in the prestigious Kirk-Othmer Encyclopedia of Chemical Technology. He was also an authority in the field of tertiary oil recovery.

Ed's passion for chemistry evolved at Lane Technical High School, at the time an all boys' school of 8,000 students, where he graduated 16th in his class. Ed paid his way through Wright Junior College by washing windows and walls and delivering newspapers around Chicago. He attended night school to follow his dream of obtaining a B.S. degree (1945) in Chemistry from the Central YMCA College, the future Roosevelt University. He worked at Swift & Company as a Pilot Plant Operator, making glue from animal carcasses. Following his graduation with an MS degree (1954) at the Illinois Institute of Technology, Ed worked as an entrepreneur in the field of sulfonation. He authored or co-authored 47 U.S and foreign patents. He was an innovator at the forefront of developing the film sulfur dioxide sulfonation process, currently used globally to manufacture detergent compounds. In addition, he completed a certificate (1965) in advanced management at the University of Chicago.

Friends and family were always foremost in Ed's heart, and he inspired them to be better and stronger and kinder. He would laugh at his own gaffes which made him all the more human. Ed traveled the world with his wife Pearl, documenting their travels with his artistic eye for photography. He also authored a 600-page book for his family detailing his life experiences across the changes he encountered during the span of nearly a century. Ed lived by his high code of ethics and inspired those around him to live their impossible dream. He believed that nothing is out of one's reach. "Do not follow where a path may lead," he would say, "but instead forge your path and persevere through the curves in the road." To encourage others, for example, he took time to work with students preparing for a state-wide robotics competition.

Survivors include a daughter, Kathleen; son, Thomas; five grandchildren and three great-grand-children. He was preceded in death by his beloved wife Pearl.

Adapted from an entry by Linda Wang, dated November 20, 2020, Chemical & Engineering News with photo by Kathleen L. Miller. Copyright © American Chemical Society; and from an obituary posted online at https://www.kelleyspaldingfuneralhome.com.

HOLIDAY GIVING OPPORTUNITY

In the past the Chicago ACS Section has held a food and toy drive at its annual holiday meeting in December. This year, however, we are unable to host an in-person holiday meeting because of Covid. The pandemic has put a strain on many people who are out of work. Many will go hungry for the holidays or be unable to give toys to their children. *Note: You may need to contact an agency before dropping things off.* Here are a few suggestions.

GREATER CHICAGO FOOD DEPOSITORY: https://www.chicagosfoodbank.org/ • **NORTHERN ILLINOIS FOOD BANK**: https://solvehungertoday.org • **NORTHWEST INDIANA FOOD BANK**: https://foodbanknwi.org/ • You may also send a donation to Naperville-based **LOAVES AND FISHES** at https://www.loaves-fishes.org/ or a check to 1871 High Grove Lane, Naperville, IL 60540 • Or donate non-perishable food items to the local food pantry in your area • Please also remember children at this time of year by donating new-only items to **TOYS FOR TOTS** at https://www.toysfortots.org/request_toys/donate-toy.aspx. Once at the website, select a location near you or donate a toy virtually at https://www.toysfortots.org/donate/Default.aspx.

Please won't you help make someone's holiday a bit brighter this year?