ACS NEWS

The biannual newsletter for the American Chemical Society Division of Fluorine Chemistry

MESSAGE FROM THE CHAIR

GREETINGS FROM SOUTHERN CALIFORNIA! It is my pleasure to begin this newsletter with congratulations to **Erhard Kemnitz** from the Humboldt-Universität zu Berlin, Germany, for being awarded the **2018 ACS Award for Creative Work in Fluorine Chemistry**. Professor Kemnitz's research involves the synthesis and characterization of high-surface metal fluorides, oxofluorides, oxides and inorganic-organic hybrid materials as well as fluorocarbons for medical purposes and perfluoroalkyl functionalized fullerenes. The award of Prof. Kemnitz will be recognized through an award symposium at the 2018 Spring ACS National Meeting in New Orleans. You will find more details about the meeting in the report of the program chair.

The 2018 Fluorine Award is sponsored by the Division of Fluorine Chemistry. As the smallest Division of ACS, the ACS Award for Creative Work in Fluorine Chemistry is extremely important to the Fluorine Division. Please increase your support by spending the time to nominate deserving candidates and help us to identify possible sponsors. Please contact me or any officer of the Division if you have any questions or comments, or if you wish to participate.

I am pleased to highlight the selection of three Division members as ACS Fellows and would like to extend congratulations to **John T. Gupton** (University of Richmond), **Viacheslav Petrov** (The Chemours Company), and **GB Hammond** (University of Louisville) for being recognized as 2017 **ACS Fellows** at the Fall ACS National Meeting in Washington. Please contact me or David Vicic with suggestions for the Fluorine Division to consider for the 2018 nomination process.

The Division is inviting applications for the **2018 Moissan Summer Undergraduate Research Fellowships (SURF)**. This is an excellent opportunity to recognize and support talented undergraduate students in your Department. You can find a description of the SURF contained within this newsletter. Faculty members should submit the applications (5 pages) by January 31, 2018 to Vicic@usc.edu.

In 2018, three at large seats of the Division's Executive Committee will be replaced, as **Kazuhiko Matsumoto**, **Gary Schrobilgen**, and **Norio Shibata** are finishing their terms of service. In addition, the Division's Treasurer position of **Bob Syvret** will come up for re-election. A slate of candidates was approved during an open Division meeting at the 2017 Winter Fluorine Conference. Furthermore, David Vicic will become Chair of the Division on January 1, 2018, thus leaving the Membership-Chair position open for vote as well. You can find the biographies of all candidates in this newsletter.

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VICE-CHAIR MEMBERSHIP REPORT

As of September 2017 there were 523 members of the Fluorine Division. The breakdown is as follows:

GROUP	COUNT	%
Division Affiliate	10	1.91
Emeritus Member	43	8.22
Regular Member	391	74.76
Regular Student Member	37	7.07
Retired Member	19	3.63
Society Affiliate	7	1.34
Student Member – Undergrad	16	3.06
TOTAL	523	100

Please join me in welcoming the newest members in 2017: Yoshinori Sato, Matthew Barchok, Sankarganesh Krishnamoorthy, Kerry Rippy, Nico Santschi, David Gutierrez, Nicola Breen, Kyle Kulinski, Haleema Alamri, Guojun Han, Kate Fryer, Akina Horiuchi, Hari Khatri, Fady Nahra, Ed Pheil, Leonard Luyt, Steven Davis, Selda Erkoc Ilter, Christopher Nix, Jae Han, Ryan Petery, and Kyle Seaborn.

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VICE-CHAIR **MEMBERSHIP REPORT** *Continued from p. 1*

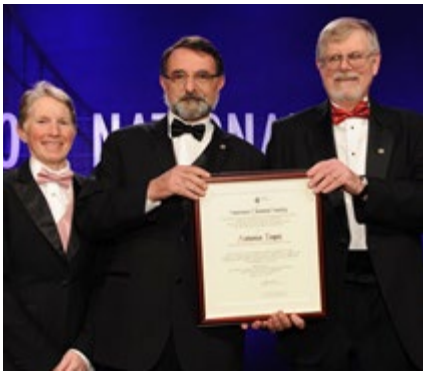

DAVID VICIC

I hope to encourage you at this time to become a member of the American Chemical Society Division of Fluorine Chemistry. As a member, you have drastically reduced rates at the Winter Fluorine Conferences, as well as eligibility for Division awards and travel reimbursements. We encourage current members to recruit students, postdocs, and early career fluorine chemists to join the Division. To become a member of the Division of Fluorine Chemistry, please click here and complete the application form. To be a full member you also have to be an ACS member. You can be an affiliate of the Division without being a member of the ACS. Please see the ACS website for further details. We welcome any suggestions for activities that will help maintain and expand our membership. ■

VICE-CHAIR **PROGRAM REPORT**


NEIL VASDEV

A symposium in Honor of **Dr. Antonio Togni, Winner of the 2017 ACS Award for Creative Work in Fluorine Chemistry**, from the Swiss Federal Institute of Technology, ETH Zurich, Switzerland was organized by Dr. John Welch at the 253rd Spring ACS National Meeting in San Francisco, CA (April 2–6,2017). The meeting was a major success with more than 35 lectures presented. We thank Dr. Welch, as well as the Presenters and Chairs for their dedication and hard work and contributions for continuing to make this important award symposium a success. Congratulations again to Dr. Togni!



2017 recipient Antonio Togni (center) is presented his award by sponsor representative, David A. Dixon (right), and Allison A. Campbell, ACS President (left).

MESSAGE FROM THE **CHAIR**

Continued from p. 1

Please stay involved in the Division business by **casting your vote**.

Before finishing my last Division Newsletter as Chair of the Fluorine Division, I would like to thank all officers for their work and support during this past year. You will see from the individual reports that every officer and engaged member has been contributing to the overall success of the Division. It has been my honor and privilege to serve the Division of Fluorine Chemistry as Chair during the past two years. I am very thankful to all current and past members of the Executive Committee, colleagues and friends for their help and support. **Thank you!**

With just a few months left in this calendar year, I wish you a productive season of research. Please do not hesitate to contact me directly (haiges@usc.edu) if you have any comments, concerns or questions. ■

Ralf Haiges. Chair, 2017

We have several upcoming fluorine chemistry meetings and following calls for papers should be noted:

- Abstract submissions are now open for the **255th ACS National Meeting & Exposition, March 18-22, 2018, New Orleans, Louisiana.** Our Division will be sponsoring 2 symposia at this meeting: **1) 2018 ACS Award for Creative Work in Fluorine Chemistry in honor of Dr. Erhard Kemnitz** (Humboldt University – Berlin). This symposium will feature invited presentations and will be co-organized by Dr. David Dixon and Dr. Thomas Braun. The award will be presented at the ACS Awards Banquet on Tuesday March 20 and a separate symposium dinner is being planned; and 2) FLUO will be the primary sponsor of the **Radiopharmaceutical Chemistry Symposium** (co-sponsored with MEDI, INOR and NUCL) highlighting the latest developments radiochemistry with an emphasis on ^{18}F-radiochemistry. This symposium will feature both invited and contributed talks, as well as poster session on topics including: 1) Novel ^{18}F and ^{11}C chemistry and 2) production of radionuclides of radiopharmaceutical interest, 3) Radiometal-based radiopharmaceuticals. This meeting will be co-organized by Drs. Suzy Lapi, Gilles Tamagnan, Alan Packard and Neil Vasdev. As with our past radiopharmaceutical chemistry symposia, we anticipate that there will be an informal mixer for FLUO members, attendees and sponsors following the symposium. **Abstract submissions close on October 16, 2017**.

- The **22nd International Symposium on Fluorine Chemistry (ISFC)** will be held in **Oxford, UK from July 22-27, 2018** will be Chaired by Drs. Veronique Gouverneur, David O'Hagan, and Graham Sandford. **Registration, Housing and Abstract submission is now open.** See conference flyer on page 10.
- I hope you all will also mark your calendars for the **24th WFC and plan to attend in January 2019**.

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VICE-CHAIR **PROGRAM REPORT** *Continued from p. 2*

On the behalf of the Division I would like to thank all Symposia Organizers, as well as the Presenters and Chairs, as for their dedication and hard work in putting together excellent programs. We also greatly acknowledge the immense support of our Treasurer Dr. Bob Syvret for supporting all of the financial aspects involved in planning, fundraising and organizing our symposia, as well as the ACS administrative support teams who work tirelessly behind the scenes to make our meetings a success.

UPCOMING SYMPOSIA TO NOTE:

255TH ACS NATIONAL MEETING & EXPOSITION • MARCH 18-22, 2018, NEW ORLEANS, LOUISIANA.

- **2018 ACS Award for Creative Work in Fluorine Chemistry in honor of Dr. Erhard Kemnitz** (Humboldt University – Berlin) Co-Organizers: Dr. David Dixon and Dr. Thomas Braun. Invited presentations.

- **RADIOPHARMACEUTICAL CHEMISTRY SYMPOSIUM**
  Co-organizers: Drs. Suzy Lapi, Gilles Tamagnan, Alan Packard and Neil Vasdev. Contributed Oral and Poster Presentations.

ABSTRACT SUBMISSION CLOSES OCTOBER 16, 2017 | SUBMIT VIA WWW.MAPS.ACS.ORG ■

DIVISION COUNCILOR **REPORT** ACS FALL 2017 COUNCIL MEETING, WASHINGTON, D.C.

COUNCIL ACTIONS Five new members were elected to the each of the Council Policy Committee, Committee on Nominations and Elections, and Committee on Committees.

A recommendation by the Committee on Membership Affairs that Council approve the Petition on International Chemical Sciences Chapters narrowly failed to achieve the two-thirds majority required to amend the Bylaws. The proposal would have amended Bylaw IX, Section 4, to permit financial support for International Chemical Sciences Chapters and to remove language from the Bylaws prohibiting Chapters from having representation on Council. It was recommended that more study be done on this issue.

The Council defeated a proposal from the Committee on Divisional Activities that establishes a probationary Division of Space Chemistry, effective January 1, 2018. A number of Divisions strongly opposed this proposal, notably, Physical and Inorganic.

On the recommendation of the Committee on Local Section Activities, the Council approved a petition from the South Jersey Local Section to annex the unassigned and adjacent territory of Ocean County, New Jersey.

NOMINATIONS AND ELECTIONS COMMITTEE The Committee on Nominations and Elections solicits input of qualified individuals for President-Elect and/or Directors for future consideration. Suggestions may be sent to nomelect@acs.org. Ballots for the 2017 fall national election will be distributed on September 29, with a voting deadline four weeks later, on October 27. In a change of procedures, all members with an email address on file and eligible to vote will receive an **electronic ballot** with the option to request a paper ballot. Those members with no email address on file will be sent a paper ballot with the option to still vote electronically. The ACS election vendor, Survey & Ballot Systems, will send three email reminders during the voting period to those who have not voted as of the reminder date.

BUDGET AND FINANCE COMMITTEE The Society's 2017 Probable Projection calls for a Net from Operations of $25.3 million. This is $2.1 million favorable to the Approved Budget and $1.6 million higher than 2016. Total revenues are projected to be $553.0 million, which is $2.4 million unfavorable to the budget, but 5.0% higher than the prior year. Total expenses are projected at $527.6 million, which is $4.5 million favorable to the budget, and 4.9% higher than 2016. The Board approved funding for the *ACS Online Course in Laboratory Safety and the New Faculty Workshop Series* for inclusion in the 2018 Proposed Budget and the 2019-2020 Forecast.

Additional information can be found at www.acs.org, at the bottom of the page, click 'About ACS', then 'Financial'. There you will find several years of the Society's audited financial statements and IRS 990 filings.

WASHINGTON MEETING ATTENDANCE The theme of the 254th ACS National Meeting was "Chemistry's Impact on the Global Economy." Attendance was 12,904. The advance member registration fee for national meetings held in 2018 will bet $475.

The Board held a discussion with officers and members of the board of directors of the National Organization for the Professional Advancement of Black Chemists and Chemical Engineers (NOBCChE) on what governance participation might look like at the organizations' annual meetings, possible meetings between ACS and NOBCChE at the ACS Leadership Institute, dual membership between both organizations, strategic alliances of student chapters at the local section and regional levels, and ACS Board participation at NOBCChE Annual Conferences.

An issue is the decline of membership. We need to increase membership in the ACS and in the Division. ■

BOB SYVRET

The Division's **total** assets have increased approximately **5.6%** over the course of the 12 month period ending June 30, 2017. This increase is primarily due to industrial contributions received in support of the 23rd Winter Fluorine Conference.

ASSETS *(actual as of 30 June 2017)*

	($) as of 30 June 2016	*($) as of 30 June 2017*
Wells Fargo Bank Account	$10,064	$34,007
Long-term Investment Accounts	$204,915	$192,956
TOTAL ASSETS	$214,979	$226,963
Percent Change		+5.6%

2017 FINANCIAL HIGHLIGHTS

- In 2016 the Division provided 2 Moissan Summer Undergraduate Research Fellowships in the amount of **$5,000 each** to Professors John Welch at the University of Albany and Markus Etzkorn at UNNC.
- The Division provided **$3,500** in financial support to the Award Symposium for Antonio Togni at the Spring ACS National Meeting in San Francisco, April 2017.
- The Division provided **$2,500** to support the Organofluorine Symposium held at SERMACS 2017 in Charlotte, NC.
- **$28,000** of industrial sponsorship was raised to support the 23rd WFC.

OUTLOOK FOR 2018

- The Division has budgeted to provide **2 Moissan SURF @ $5,000 each** in 2018.
- The Division will sponsor the 2018 ACS Award for Creative Work in Fluorine Chemistry at a cost of **$9,000**.
- The Division will provide up to **$3,500** for the ACS Award for Creative Work in Fluorine Chemistry symposium in honor of Professor Erhard Kemnitz to be held at the 2018 ACS Spring National Meeting in New Orleans.
- The Division will provide up to **$6,000** for the F-18 Radiochemistry Symposium to be held at the 2018 ACS Spring National Meeting in New Orleans.

SUPPORT OF FLUORINE DIVISION SYMPOSIA

The Division's support is currently at $3,500 + $2,500 = $6,000 for each FLUO Division Symposium held at ACS National Meetings and Pacifichem. Beginning with the ACS National Meeting in Philadelphia (August, 2016), the criteria for providing this support changed as follows:

1. Any Fluorine Division sponsored symposium at an ACS National Meeting or Pacifichem is eligible to receive $3,500. The $3,500 must be used to pay for speaker registrations.
2. Only Fluorine Division members with current dues paid in full will be reimbursed. **Non-members of the ACS Division of Fluorine Chemistry will not be reimbursed**.
3. If the symposium organizers raise at least $3,500, the Division will provide an additional $2,500 of discretionary funding. ■

FOLLOW US ON TWITTER! **AN EASY WAY TO DISCOVER THE LATEST NEWS RELATED TO THE ACS DIVISION OF FLUORINE CHEMISTRY IS TO FOLLOW OUR TWITTER ACCOUNT LOCATED HERE: HTTPS://TWITTER.COM/FLUORINECHEM.**

KENJI UNEYAMA, the brilliant organofluorine chemist and Professor Emeritus of Okayama University, passed away on May 2, 2017 at the age of 75. He was born on June 23, 1941, in Osaka, Japan. He studied chemistry at the Department of Applied Chemistry, Osaka City University, where he received a B. Eng. in 1964 and M. Eng. in 1966. He obtained his Ph. D. degree under the supervision of Professor Shigeru Oae concerning the chemistry of divalent sulfur-stabilized carbanions at the same university in 1969. His academic career started as a lecturer at the Department of Applied Chemistry, Okayama University in 1969 and was quickly promoted to an associate Professor in 1970. He worked with Professor Paul G. Gassman as a postdoctoral fellow at Ohio State University from 1972–73. He had accomplished excellent studies in the fields of natural product syntheses and electroorganic chemistry in Professor Sigeru Torii's group and became a full Professor of Okayama University in 1984. He then started his new projects on organofluorine chemistry, focusing on the development of the smart synthetic methodology of fluorinated organic compounds.

The scientific achievements of Professor Uneyama in fluorine chemistry are very notable. His chemistry of trifluoroacetimidoyl halides is famous around the world in the field of organofluorine chemistry; his compounds are now widely used as versatile trifluoromethylated synthetic blocks endowed with reactive sites such as halogens, the C-N double bond, and N-aromatic rings. The discovery of the practical one-pot preparation of trifluoroacetimidoyl halides from trifluoroacetic acid, in particular, allowed expansion of the scope of the synthetic application as multifunctional building blocks for synthetic organofluorine chemistry. For instance, the halogen atoms (Cl, Br, and I) in imidoyl halides are trigger sites for generating the imidoyl cations, radicals, and anions for a wide repertoire of carbon-carbon and carbon-heteroatom bond forming reactions. His next representative contribution in organofluorine chemistry was the development of magnesium-promoted carbon-fluorine bond activation to provide a general synthetic route to difluorinated organic compounds; by the use of metallic magnesium/TMSCl, selective cleavage of C-F bonds in trifluoromethyl ketones, esters, imines, and aromatics produced difluorinated synthetic intermediates for various applications such as the synthesis of optically-active fluoroamino acids and the production of fluorocyclophanes for electronic devices.

Professor Uneyama received many awards, including in 1997, the Award of the Society of Synthetic Organic Chemistry, Japan and in 2007, the ACS Award for Creative Work in Fluorine Chemistry. He was a member of the 155th Committee on Fluorine Chemistry, Japan Society for the Promotion of Science from 2000 to 2007. He supervised the dissertations of over 100 research students and published more than 200 papers. He is also well known as the author of 'Organofluorine Chemistry' (Blackwell Publishing, 2006), which is a worldwide-renown textbook on basic organofluorine chemistry.

Professor Uneyama had many friends in the fluorine chemistry community due to his splendid research activities as well as his gentle and warm character. He will be deeply missed by the chemistry community.

—Hideki Amii (Gunma University), Toshiyuki Itoh (Tottori University), and Toshimasa Katagiri (Tokyo University of Technology)

NOTE:

THE ELECTION BALLOT FOR OFFICES OF THE DIVISION OF FLUORINE CHEMISTRY WILL BE DISTRIBUTED BY EMAIL.

READ THE BIOS ON THE FOLLOWING PAGES ...

EXECUTIVE COMMITTEE

(Three-year term, 2018-20)

GARY J. SCHROBILGEN, Professor, Department of Chemistry, McMaster University, is a native of Eastern Iowa and received his B.S. degree in chemistry from Loras College (Dubuque, Iowa) and a Ph.D. in inorganic chemistry from McMaster University under the supervision of Prof. Ronald J. Gillespie. After two years of research as a Natural Sciences and Engineering Research Council (NSERC) of Canada Postdoctoral Fellow at Leicester University, U.K., Dr. Schrobilgen joined the McMaster Chemistry Department as a NSERC University Research Fellow (1980-90) and member of faculty in 1980, and was promoted to full Professor of Inorganic Chemistry in 1988. He has made important contributions in two major areas of synthetic and structural inorganic chemistry; fluorine chemistry and the polyatomic anions of the main-group elements. Both programs are heavily reliant upon the use of modern methods of structural elucidation, including multi-NMR spectroscopy, X-ray crystallography, and vibrational spectroscopy, as well as quantum-chemical calculations, to characterize novel bonding situations among main-group and high-oxidation state transition element species. He is best known for his work in the experimentally challenging field of inorganic fluorine chemistry, encompassing the syntheses and structural characterization of a large percentage of the known compounds of krypton and xenon as well as fluoro- and oxofluoro-derivatives of the main-group and transition elements in their highest oxidation states and at the limits of coordination. He is also known for his work in two areas of radiochemistry, which involve the syntheses of 99Tc fluorine compounds that are relevant to the uranium fuel cycle, and ^{18}F-labelled radiopharmaceuticals of use in PE (positron emission) imaging of the human brain. His fundamental work has been of importance in our understanding of structure and chemical bonding in so-called "hypervalent" molecules and main-group ring, cage, and cluster species.

He is recipient of the President's Award for Excellence in Graduate Supervision at McMaster University (1997); the American Chemical Society Award for Creative work in Fluorine Chemistry (1998); several Canadian Society for Chemistry Awards: the Alcan Lecture Award (2002), the Award for Pure or Applied Chemistry (2002), the E. W. R Steacie Award in Chemistry (2003); and has held a Canada Council Killam Research Fellowship (1998-99). He was inducted as a Fellow of the Royal Society of Canada (Canada's National Academy) in 1999. Professor Schrobilgen has served on the Executive Committee of the Division of Fluorine Chemistry of the American Chemical Society, holding the positions of Vice Chair/Secretary (2002-04), Chair (2005) and Past Chair of the Fluorine Division (2006), as well as serving as a member of the Executive Committee at Large (2007-17). More recently, he received a senior Alexander von Humboldt Research Award (2010), the McMaster University (2011) Distinguished Alumni Award in the Sciences (2011), the Brock University Distinguished Alumni Award in Mathematics and the Sciences (2014), the Lifetime Achievement Award in Fluorine Chemistry sponsored by SciFluor (2012), and was elected a Fellow of the American Chemical Society (2013). He presented the Neil Bartlett Memorial Lecture, University of California, Berkeley in April, 2017.

MARKUS ETZKORN studied chemistry at the Albert-Ludwigs-University in Freiburg (Germany) where he also obtained his Ph.D. under the supervision of Prof. Horst Prinzbach. He continued his post-graduate work as a post-doctoral researcher in Prof. George A. Olah's laboratory at the Loker Hydrocarbon Research Institute and the Department of Chemistry at the University of Southern California. It was at USC that he received his introduction to organofluorine chemistry with Drs. Olah and G. K. Surya Prakash and collaborative projects with Karl O. Christe.

In 2005 Markus started his independent career at the University of North Carolina at Charlotte where his is now Associate Professor of chemistry, pursuing work on fluorinated polycyclic scaffolds and building blocks for fluorinated organic materials. In particular, his group is targeting cross-conjugated species, such as fluoro-isoindenones and fluoro-dendralenes, as well as fluorinated aza-arenes for their unique electronic properties.

Markus has served in the ACS Division of Fluorine Chemistry as program chair (2010-13) and division chair (2014). He has been actively engaged in the division's symposia and meetings since the early 2000s, most recently as the vice-chair of the 2017 Winter Fluorine Conference. He will continue his service to the Division of Fluorine Chemistry as the chair of the 2019 Winter Fluorine Conference.

HAORAN SUN, Associate Professor of Chemistry and Director of the Center for Fluorinated Functional Materials, Department of Chemistry, University of South Dakota, received his BS degree in chemistry from Jilin University in 1990. He continued his graduate education there and obtained his PhD degree in 1996. After a short stint as a faculty member at Jilin University, he and his family moved to the United States at the end of 1999. He initially worked with Prof. Stephen DiMagno in Lincoln Nebraska where he and Prof. DiMagno discovered the anhydrous TBAF, a highly reactive nucleophilic fluorinating reagent, in 2004. After joining the University of South Dakota, Dr. Sun's research focuses on discovery and commercialization of new fluorinated functional materials, particularly organic semiconductor materials and high energy density battery materials, with over $4 M in funding support over the past nine years from DOD, NSF (CAREER grant), NASA, and the State of South Dakota. He has authored and co-authored four book chapters and 75 peer-reviewed journal articles; and obtained four U.S. patents. In addition to his teaching and research work

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at the University of South Dakota, he actively serves on the chemistry community. He was the ACS Sioux Valley local section chair in 2011 and executive committee member from 2010 to 2012. As the director of the newly-established Center for Fluorinated Functional Materials in South Dakota, he focuses on bringing in younger generations into the fluorine chemistry community by engaging undergraduate students to work on fluorine chemistry related projects.

CHRISTOPHER P. JUNK received a B.S. degree in chemistry from St. Norbert College (DePere, WI) in 1995, and a Ph.D. in chemistry from Dartmouth College (Hanover, NH) in 2000. He started his career by taking a position with DuPont in 2000 in the Teflon® Research group at the Parkersburg, West Virginia production plant. In 2003 he transferred to DuPont Central Research & Development in Wilmington, Delaware where he spent over a decade working on a variety of projects including amine-based fluorinating agents, ionic liquids, fluorinated superacids, fluoroelastomers, photoresist polymers, fluorinated copolymers, fluorosurfactants and the tribology of fluoropolymer composites. He is an inventor on over 45 patent applications and 30 granted patents, and co-author on 19 publications.

In 2016 Chris started his own technical consulting business (CJIdeas, LLC), and became a Senior Research Fellow at Lehigh University (Bethlehem, PA) where he continues research on the friction and wear behavior of polymer composites.

Chris served as the Vice-Chair of Membership for the Fluorine Chemistry Division from 2012-15, was Chair in 2015, and past Chair from 2016-17.

CHADRON M. FRIESEN is a Full Professor of Chemistry at Trinity Western University in British Columbia, Canada. He also has held an adjunct research appointment at Simon Fraser University, since 2004. He is a current holder of the prestigious Discovery Grant in Chemistry from the National Science and Engineering Council of Canada. In addition, he is also involved with the Horizon 2020-Marie Skłodowska-Curie actions. He has served as Past Chair, Chair, Vice-Chair/Secretary for the American Chemical Society Division of Fluorine Chemistry in 2014, 2013 and 2009-12, respectively. Prof. Friesen also spent a year (2013-14) collaborating with Prof. Bruno Ameduri in Montpellier, France as a visiting scientist. While in France, he was awarded the Chaire Total Fondation Balard in 2014. Prof. Friesen's research interests reside in green industrial applications of fluorine chemistry. Many of Prof. Friesen's journals, technical reports and patents focus on fluorinated alkoxides formation, design of fluorinated ether stability, functionality, and their expanded applications in light cured materials, block co-polymers, fluorous biphase catalysis systems, and medical detection and delivery devices. Prof. Friesen completed a B.S. in Chemistry and a B.S.E in Secondary Education from John Brown University in Siloam Springs, Arkansas, USA in 1995. In 1996, he began graduate school in fluorine chemistry at The University of Alabama in Tuscaloosa, AL, USA under the direction of Prof. Joseph S. Thrasher. Additionally, Dr. Jon L. Howell co-supervised Friesen in the latter part of his Ph.D. degree while being employed by E.I. du Pont de Nemours and Co., Inc. Prof. Friesen completed his Ph.D. in 2000 and began his independent career at Trinity Western University in 2000. Later he was presented with the Trinity Western University Research Fellowship in 2005. In addition to research, he also teaches general, organic and advanced organic, analytical chemistry, thermodynamics, fluorine chemistry, and advises research students in fluorine chemistry both at the undergraduate and graduate level. He has also spent time as a visiting scientist at E. I. du Pont de Nemours and Co., Inc. Terms at DuPont ranged from several months in 2001, to a one year sabbatical term in 2006-07. In addition to Friesen's academic work, he enjoys mentoring the next generation through programs such as Scouts and Awana International. He also enjoys the outdoors and spending time with family and friends.

DR. KAZUHIKO MATSUMOTO studied chemistry at Kyoto University where he received his PhD degree in 2004 in the group of Profs. Rika Hagiwara and Yasuhiko Ito. He extended his research areas as a postdoc at Aichi Institute of Technology with Prof. Tsuyoshi Nakajima (surface fluorination of graphite anode for Li ion batteries), at McMaster University with Prof. Gary Schrobilgen (synthesis and characterization of new Xe(VI) species), and at Kyoto University with Prof. Rika Hagiwara (functional fluorine-containing salts including ionic liquids). He was appointed Assistant Professor in 2010 at Kyoto University and was promoted Associate Professor in 2015. His research interests are in inorganic and physical fluorine chemistry including structural characterization of new chemical species, synthesis and application of ionic liquids, and evaluation of electrolyte and electrode materials for electrochemical devices.

Kazu co-organized fluorine chemistry symposia at Pacifichem 2010 and 2015 (Honolulu), 248th ACS Meeting (San Francisco) in 2014 and served as a secretary of the 20th International Symposium on Fluorine Chemistry (Kyoto) in 2012. He is a member of the ACS Fluorine Division, the Society of Fluorine Chemistry, Japan, the Chemical Society of Japan, the Electrochemical Society, and the Electrochemical Society of Japan. He received the Molten Salt Prize for Young Researchers (Molten Salt Committee, the Electrochemical Society of Japan) in 2009, the Australian Journal of Chemistry Prize in 2011 (4th Congress on Ionic Liquids, Washington), the Sano Award for Young Researchers (the Electrochemical Society of Japan) in 2013, and Commendation for Science and Technology by the Minister of Education, Culture, Sports, Science and Technology (Young Scientist Award) in 2017. He has been on the Executive Committee of the Division of Fluorine Chemistry since 2015.

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TREASURER (Three-year term, 2018-20)

ROBERT (BOB) SYVRET received a Ph.D. in main group fluorine chemistry from McMaster University, Hamilton, Ontario, Canada. He has spent 30+ years as an industrial fluorine chemist gaining experience creating new molecules, developing new industrial process technology, and commercializing a number of new high-value products.

Following completion of his Ph.D. in 1987, he joined Air Products and Chemicals (Allentown, PA) as the first fluorine chemist in the Corporate Research Center and was charged with "establishing a R&D program to get more value from F_2." In his 23-year career at Air Products, he led the technical development and commercialization of SelectFluor (I) and (II) electrophilic fluorination agents and the process chemistry development of deoxofluorination agents including DeoxoFluor™. He was responsible for the development of commercially viable selective fluorination technology at Air Products through the industrial scale use of F_2 and facilitated fluorination technology involving FTM (CF_3OF) and BDM ($CF_2(OF)_2$].

He was the technical lead for development of a "green" NF_3 process involving fluorination of ammonium bifluoride in PFCs as well as the developer of improved process technology for SiF_4. He led the discovery and process chemistry development programs for the creation of novel -SF_5 and -OSF_5 containing compounds and served as the technical lead responsible for a multi-year joint development program to create new fluorocarbon-based reactive-ion etchants for semiconductor manufacturing. During his time at Air Products, he also contributed to R&D and process improvement programs to develop novel Li-ion battery electrolytes, fluorosilicon precursors for fiber optic glass formation, improved F_2 generation technology, high-purity metal fluorides, and interhalogen (ClF_3, BrF_3, and IF_5) process technology.

In 2009, he joined Voltaix (Branchburg, NJ) and spent the next two years developing silane, germane, and aminosilane based chemistry for advanced deposition applications in semiconductor technology.

In 2011 he joined Arkema, Inc. (King of Prussia, PA) as Research Fellow – Fluorine Technology and was responsible for the development of HF-based halogen exchange catalysis and process chemistry in the development of 4th generation low-GWP hydrofluoroolefins HFO-1234yf for mobile air-conditioning applications and HFO-1233zd for foam expansion and low-pressure chiller applications. From 2011 to 2017 he also served as Arkema's technical lead for fluorochemicals portfolio diversification. In this role, he was responsible for developing new molecules and alternative applications leveraging Arkema's HF-based technology platform. He led the technical effort on a JDA with a Tier-1 industrial gas company to develop novel fluorochemical based molecules for reactive-ion etching in advanced semiconductor manufacturing. He and his team delivered several new fluoroalkylthiol and low-GWP hydrofluoroolefin candidates for this program.

In 2017 he joined Electronic Fluorocarbons (EFC) as Chief Scientist and is responsible for building a new R&D facility and staff at EFC's Hatfield, PA location. In this new role, EFC will develop new high-purity products including novel leading-edge fluorochemical etchants for atomic layer etching (ALE) in support of semiconductor manufacturing at the sub-10 nm technology nodes.

In 2017, coincident with EFC joining Lehigh University's industrial liaison program, Bob was appointed a Research Fellow in the Department of Chemistry at Lehigh University where he is currently building a fundamental fluorination laboratory capability to develop new molecules and fluorination process technology based on the use of F_2, AHF, and other fluorine sources.

Bob served the ACS Division of Fluorine Chemistry as Vice-Chair Secretary-Treasurer (1999-2001), Chair (2002), and as Treasurer continuously from 1999 to present. Bob was inducted into the 2016 Class of ACS Fellows.

VICE-CHAIR/MEMBERSHIP

(Three-year term, 2018-20)

MICHAEL GERKEN received his Dipl. Chem. degree from the Gerhard Mercator University in Duisburg, Germany in 1995. He completed his Diploma thesis with Prof. Wiebren Veeman on ^{129}Xe NMR spectroscopy of xenon gas absorbed in microporous solids. During his graduate studies in Duisburg, Michael went to McMaster University for one year on an exchange to do research with Prof. Gary J. Schrobilgen on Zintl-anion chemistry. Michael returned to McMaster in 1995 to pursue Ph.D. studies with Prof. Gary J. Schrobilgen. Michael's thesis work involved the synthesis and characterization of XeO_4 and oxide fluorides of xenon(VIII), osmium(VIII), iodine(VII), and xenon(II). Michael received his Ph.D. in inorganic chemistry in 2000. He then continued as an NSERC postdoctoral fellow at the Loker Hydrocarbon Research Institute of the University of Southern California, where he worked in Prof. Karl O. Christe's research group for two years. In 2002, he joined the Department of Chemistry and Biochemistry of the University of Lethbridge in Alberta, Canada, as an Assistant Professor. Currently Michael is a Full Professor and the founding Director of the Canadian Centre for Research in Advanced Fluorine Technologies (C-CRAFT) at the University of Lethbridge, specialized in inorganic fluorine chemistry, focusing on high oxidation state main-group and transition-metal compounds and sulfur fluoride chemistry, as well as elucidation of the structure of asphaltenes. Michael has co-authored fifty eight publications including four book chapters and was the chair of the 21st Winter Fluorine Conference in Jan. 2013. He has been a member of the Executive Committee of the Fluorine Division from 2005 to 2008 and since 2013. ■

2018 MOISSAN SUMMER UNDERGRADUATE RESEARCH FELLOWSHIP IN FLUORINE CHEMISTRY

THE AMERICAN CHEMICAL SOCIETY, DIVISION OF FLUORINE CHEMISTRY is committed to continuing its sponsorship of undergraduate research and actively encourages the submission of appropriate proposals for research to be conducted during the Summer of 2018. This program is intended to encourage an interest in fluorine chemistry among prospective graduate students. The program will provide funds for a student's summer salary and will be awarded directly to faculty members conducting research in any area of fluorine chemistry at colleges or universities on the basis of competitively judged applications. The 2018 awards provide $5,000 to fund a student during a Summer research program of approximately ten weeks. In addition, with the faculty member's approval, a limited stipend of up to $500 will be available for the student to present his/her research results at an ACS sponsored meeting. Research expenses in connection with this program will be the responsibility of the faculty member or his/her department or institution. The number of awards to be made will be dependent upon the funds available. Applications for funding under this program may be submitted by a faculty member conducting research in fluorine chemistry. The application should be no longer than five pages and should outline the specific research to be undertaken by the student, should present reasons for anticipating progress by the student during the allotted time, and should suggest how the program might encourage the student to pursue graduate work in fluorine chemistry. All applications must state that the faculty member has adequate facilities and sufficient additional funds to cover research expenses for the proposed research program, and must be signed by the applicant. In addition, the faculty member has to be a member in good standing of the ACS Fluorine Division. To be considered for an award in 2018, the Division Chair must receive an application by January 31, 2018.

The electronic submission should be in the form of a PDF document and sent to:
Vicic@lehigh.edu

No more than one award will be provided to an individual applicant per year. Applications for funding under this program will be judged by a committee consisting of the Division Chair, one academic member and one industrial member of the Division of Fluorine Chemistry and one member-at-large of the Fluorine Division. The awards for 2018 will be announced in the Spring 2018 Newsletter of the Division and the award recipients will be notified prior to this by e-mail or telephone. It is anticipated that students in this program will have completed the equivalent of three years of a chemistry major's program, although outstanding students with less academic experience can also be considered. Faculty members will be urged to consider students from institutions other than their own and especially from schools that provide limited opportunities for undergraduate research. However, selection of a student for participation in this program will be at the sole discretion of the faculty member. The selection process should be completed by March 1, 2018. Brief reports (two to three pages) to the Division Chair are expected from the faculty member and student by October 1, 2018. The faculty report should include a summary of technical accomplishments, skills realized by the student, perceived interest by the student in graduate work, and the perceived success or failure of this program in encouraging interest in fluorine chemistry by the student. The student report should include a summary of technical accomplishments and an evaluation of the influence of the award program in his/her decision to consider graduate work in chemistry or fluorine chemistry. ■

22nd International Scientific Symposium of Fluorine Chemistry

21st-27th July 2018

For further information and to be added to the distribution list please contact **isfc@archer-yates.co.uk**

On behalf of the Scientific Committee and the Organizing Committee, we are delighted to invite you to join us in Oxford for the 22nd International Symposium of Fluorine Chemistry.

Fluorine, a Multifaceted Element, has sparked the interest of chemists working in disciplines as diverse as synthesis, catalysis, material sciences, energy, agrochemical sciences, medical sciences and chemical biology. We are planning a range of symposia, plenary, keynote and invited speakers sessions disclosing some of the most recent and exciting advances made by world renowned scientists working in the field. The conference aims at covering fundamental and applied fluorine chemistry in the broadest sense, and will be hosted by the University of Oxford, one of the leading universities in the world. The symposium will take place in some of the most magnificent venues of the University with the opening ceremony in the Sheldonian Theatre, the scientific oral sessions in the Examination Schools, and the poster sessions in the Oxford University Museum of Natural History.

Abstracts now open! click here

Registration now open! click here

22nd ISFC University of Oxford July 2018

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ACS NEWS

THE BIANNUAL NEWSLETTER FOR THE AMERICAN CHEMICAL SOCIETY DIV. OF FLUORINE CHEMISTRY

2017 Individual Subscription rate for the Journal of Fluorine Chemistry (Elsevier Publishing) is $222 for ACS members.

For further information please contact Natalie Steffen by email at n.steffen@elsevier.com.

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