



ACS NEWS

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

MESSAGE FROM THE CHAIR

Greetings from Delaware! The **20th Winter Fluorine Conference** was held in St. Pete Beach, Florida, on January 9-14, 2011 and was a great success. The Conference gathered over 170 participants and had a very interesting scientific program. At the conference banquet, on Thursday, January 13th, the award address was presented by Alain Tressaud, the 2010 winner of ACS Award for Creative Work in Fluorine Chemistry.

The Division would like to thank David Dixon for his hard work of putting together an excellent meeting and Vernar Beatty (ACS) for all her help with organizing the Conference.

The **21st Winter Fluorine Conference** will take place in St. Petersburg, Florida in 2013 and will be chaired by **Michael Gerken**. **Steve DiMagno** will be the co-chair of 2013 meeting and the Chair of **22nd Winter Fluorine Conference** in 2015. I would like to thank Michael and Steve for taking the responsibility in organizing these future Winter Fluorine Conferences.

I am delighted to inform you that **Robert Syvret** is the six recipient of the biannual Distinguished Service Award by The Division of Fluorine Chemistry. Being faithful member of the Division for over 20

years, Bob held the Secretary/Treasurer position and for many years he is the Treasurer of the Division. Bob's dedicated service to the Division was recognized by his colleagues through this well-deserved award. Congratulations Bob!

The Fluorine Division is proud to continue sponsoring the **Moissan Summer Undergraduate Research Fellowship**. Congratulations to awardees of year 2010 Moissan SURF:

- **Beth Daws** and **Chris Bradley**, Texas Tech University, Texas, USA
- **Tyler Richardet** and **Michael Gerken**, The University of Lethbridge, Lethbridge, Alberta, Canada
- **Jeffrey B. Johnson**, Hope College, Holland, Michigan, USA

The Division encourages Awardees to present their work at Winter Fluorine Conference or one of the ACS National meetings. The Division will cover part of the expenses for attending the ACS meeting. The Division encourages you to maintain your interest in the Moissan SURF program, and consider applying in 2011. The Call for Fellowships, to be granted in 2012, will appear in the Fall Newsletter and will also be added to the Division website by June 15, 2011.

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VICE-CHAIR

MEMBERSHIP REPORT

Vice-Chair Membership Report

As of the January 2011, there are a total of 566 members of the fluorine division. The breakdown was as follows:

Division Affiliate	20	4.47
Society Affiliate	3	0.52
Regular Student Member	38	6.53
Retired Member	21	3.95
Emeritus Member	46	7.04
Regular Member	431	76.29
Student Member – UnderGrad	7	1.20
TOTAL	566	100%

The change in membership from one year ago is almost entirely in the number of regular members of the division, which is down by 30. At the Winter Fluorine Conference in January, the Executive Committee of the Division formally supported a motion to begin a membership drive, and encouraged all active members to recruit colleagues to join the Division.

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A donation drive for the **Moissan Summer Undergraduate Research Fellowship** in Fluorine Chemistry Fund is still underway. This fund and its associated fellowship program are administered by the Division. The goal of the drive is to establish the fund as self-sustainable and from which Moissan Summer Undergraduate Research Fellowship can be provided. Currently, up to four Moissan Fellowships per annum are provided from the Division operating account. We hope that you and/or your organization will find the way to contribute to this important initiative of the Division. Contributions should be directed to the Fluorine Division's Treasurer.

This year a number of seats on the Division's Executive Committee are up for renewal and the election process for the new Executive Committee members is underway. The list of candidates was approved at the meeting of members of the Division at the 20th Winter Fluorine Conference. With this newsletter you will receive a ballot with names of candidates for positions of Secretary, Councilor, Alternative Councilor and five members of Executive Committee. I would like to express my appreciation to all candidates for participating in this vital for the Division event.

Thanks for exercising your voting privilege and let's hope for record breaking number of returned ballots!

The Fluorine Division website continues to be an extremely useful source for all members of fluorine community. Recently the website migrated to a new location at ACS server. Although some parts of the website are still in transition, at this point it is up and running. It contains listing of officers, information on the Division Awards, upcoming meetings. Newsletters and Moissan Summer Undergraduate Research Fellowship in Fluorine Chemistry sections are still in restoration process, but we are planning to open both of them soon. Please visit it at <http://fluorine.sites.acs.org> and let me or webmaster (<http://fluorine.sites.acs.org/contactus.htm>) know your thoughts or suggestions. We thank Phil Henderson for his considerable and continuous efforts in maintaining the Division website.

The Division needs your help in the recruitment of new members, since the membership in the Division is dropping at an alarming rate. Please, see Vice Chair Membership report in this Newsletter to find out how you can help to improve this situation.

If there are items that you would like to have considered for inclusion in the newsletters or concerns or questions, please send me an e-mail (viacheslav.a.petro@usa.dupont.com).

On behalf of the Executive Committee of the Division I would like to wish all of you a productive 2011! ■



Viacheslav Petrov, Chair 2011

INTERNATIONAL MEETINGS OF INTEREST

for members of the ACS Fluorine Division

20TH INTERNATIONAL SYMPOSIUM ON FLUORINE CHEMISTRY, KYOTO (JAPAN), JULY 22-27, 2012:

It is never too early to mark your calendar. For information on the 20th International Symposium on Fluorine Chemistry please visit:
<http://www2.convention.co.jp/20isfc>.

17TH EUROPEAN SYMPOSIUM ON FLUORINE CHEMISTRY (17TH ESFC)

July 21-25, 2013, Paris, France.

Organizers: *Henri Groult (Chair),*

Bruno Améduri (Co-Chair),

Alain Tressaud (Honorary Chair)

21TH INTERNATIONAL SYMPOSIUM ON FLUORINE CHEMISTRY

August 23-28, 2015, Cernobbio, Como, Italy ■

MESSAGE FROM THE CHAIR

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In response, we have added more than 20 new members over the course of the last two months. The division welcomes **Heiner Gores, Thomas Mathew, Murali Rajappa, Dietmar Kennepohl, Nahla El-Sayed Omran, Nobuaki Mori, Vladimir Kubyskhin, Katherine M. Liebmann, Jean-Francois Paquin, Ashraf Abdel-Fattah, Sebastian Riedel, Todd Senecal, Benson Jelier, Yuri L. Yagupolskii, Craig MacDermott, David S. Brock, Ulf Breddemann, Hélène Mercier, Henri Grout, Mazev Zoran, Mariana Derzsi, and Wojciech Grochala.** Please keep in mind that there is no fee for the first year of membership in the Division, and after the first year the dues are quite modest (\$10 for ACS members and \$17 for non-members).

Division Councilor Report

The ACS Council Meeting will be held on Wednesday, March 30, 2011 in Anaheim, CA, USA. A report will be given in the Fall Newsletter. ■

VICE-CHAIR PROGRAMS REPORT

Past Meetings

The **20th Winter Fluorine Conference** (Prof. David Dixon, Chair) was held in January 2011 at the TradeWinds Island Grand Resort in St. Pete Beach (Florida). The important role of fluorine in so many areas of contemporary chemistry was highlighted by an international cast of participants, presenting their current work in more than sixty oral presentations. Thirty-six posters covered different aspects of fluorine chemistry and ten poster awards were given to undergraduate and graduate student presenters.

The 2011 ACS Award for Creative Work on Fluorine Chemistry (sponsored by Honeywell) went to Professor Alain Tressaud (University Bordeaux, France), who gave his interesting award lecture on the "Structural architecture and physical properties of some inorganic (oxy-)fluoride series: From single crystals to nanostructured functionalized materials". During the award banquet Dr. Robert Syvret received the Division of Fluorine Chemistry Distinguished Service Award (Bob, you clearly provided excellent service at the Hospitality Suite throughout the meeting.). Congratulations to both awardees!

Generous support from industrial sponsors, exhibitors, and ACS is greatly appreciated. Furthermore, thanks go to all participants, session chairs, members of the Scientific Advisory Board, ACS staff and everybody who contributed to the success of the 20th Winter Fluorine Conference.

Upcoming Meetings

242ND ACS NATIONAL MEETING, DENVER, COLORADO, AUGUST 28 – SEPTEMBER 1, 2011:

The Division of Fluorine Chemistry is organizing two symposia at the upcoming Fall ACS National Meeting in Denver:

1. Symposium in Honor of Donald J. Burton: "Fluorine Chemistry the Iowa Way" (organizer: John T. Welch)
2. Symposium in Honor of Alain Tressaud (ACS Award for Creative Work in Fluorine Chemistry 2011): "Inorganic Fluorides and Fluoro-Materials" (organizers: Bruno Ameduri, Henri Groult, Gary J. Schrobilgen, H el ene P. A. Mercier)

Organizers contact information:

JWelch@uamail.albany.edu

bruno.ameduri@enscm.fr

henri.groult@upmc.fr

schrobil@mcmaster.ca

The ACS online submission of abstracts through PACS is currently open to authors and will close on Monday, March 21, 2011. For abstract submission and further information about the ACS National Meeting visit to the ACS webpage (<http://acs.org>) or contact the symposium organizers.

243RD ACS NATIONAL MEETING, SAN DIEGO, CALIFORNIA, MARCH 25-29, 2012:

At this early stage two symposia are in planning:

1. Symposium in Honor of the 2012 Award Winner for Creative Work in Fluorine Chemistry: TBA
2. "Fluorine-18 Radiochemistry" (organizers: Neil Vasdev, Henri VanBrocklin)

Additional information will be posted before abstract submission though PACS opens. ■

For more information visit:

<http://fluorine.sites.acs.org/meetings.htm>

DIVISION

COUNCILOR REPORT

THE ACS COUNCIL MEETING WILL BE HELD ON WEDNESDAY, MARCH 30, 2011 IN ANAHEIM, CA, USA. A REPORT WILL BE GIVEN IN THE FALL NEWSLETTER.

PLEASE
VOTE BY
MAY 30!

OFFICIAL
BALLOT ON
PG. 6 OF THIS
NEWSLETTER

TREASURER'S REPORT

The fiscal state of the Division of Fluorine Chemistry continues to be strong thanks to strong fundraising efforts and fiscal responsibility of the organizers of both the 19th Winter Fluorine Conference and 19th International Symposium on Fluorine Chemistry. The Table below provides a snapshot view of the Division's assets as of 31 December 2010 and the comparative numbers for the year previous.

The Division's total assets have increased approximately 26% over the course of the 12 month period ending December 2010. This increase reflects the positive performance of our long-term investments at Ameriprise Financial including a 16.2% increase in our long-term investment, ONE account that replaced our ACS Investment Pool holdings, and a 13.0% increase in the Moissan SURF Fund which is a subset of our Ameriprise Financial account.

ASSETS (as of December 31, 2010)

	(\$ as of 31 December 2009	(\$ as of 31 December 2010
ACS INVESTMENT POOL (market value)	\$114,793	\$0 (Account liquidated 5-18-10)
WACHOVIA NATIONAL BANK	\$19,757	\$45,125
AMERIPRISE FINANCIAL SPS ADVANTAGE ACCOUNTS:		
Moissan SURF Fund	\$63,928	\$72,217
Long-term Investment Account (ONE Account)	\$0 (Account opened 5-27-10)	\$133,408
TOTAL ASSETS	\$198,478	\$250,750
Total percent change		+26%

FINANCIAL HIGHLIGHTS FOR THE DIVISION FOR FISCAL YEAR 2010 INCLUDE:

> Revenue received from the 19th ISFC in Jackson Hole, WY was \$69,290.74 versus \$59,233.24 in expenses paid. **Net revenue generated = \$10,057.50**

> The Division provided \$7,000 in financial support to the Fluorine Division Symposium held at the Spring ACS National Meeting in San Francisco versus \$3,139.55 in corporate donations received. **Net paid out = \$3,860.45**

> The Division awarded 2 Moissan Summer Undergraduate Research Fellowships in the amount of \$3,500 each to Daniel Sprague working with Professor Norita Takenaka at the University of Miami and Tiffany B. Myers working with Professor Markus Etzkorn at UNC Charlotte.

> The Division provided \$2,500 in financial support to the Jean'ne M. Shreeve Symposium at the 2010 NORM/RMRM. **Net paid out = \$2,500**

> The Division provided \$15,935 in financial support to the Inorganic Fluorine Chemistry Symposium at Pacificchem 2010 (Symposium #249) versus \$12,560 in corporate donations received. **Net paid out = \$3,375.00**

> The Division provided \$2,000 in financial support to the Carbon-Fluorine Bond Activation Symposium at Pacificchem 2010 (Symposium #248) versus \$0 in corporate donations received. **Net paid out = \$2,000.00**

> The Division will provide \$10,500 in support of Moissan Summer Undergraduate Research Fellowships (SURF) in Fluorine Chemistry in 2011. ■

IMPORTANT CHANGES TO NOTE

> New address Division website <http://fluorine.sites.acs.org>

> Starting January 2012, the newsletter will be going electronic unless you specifically request a hard copy.

BIOGRAPHICAL DATA OF THE CANDIDATES FOR OFFICES OF THE DIVISION OF FLUORINE CHEMISTRY

Executive Committee (Three-year term, 2011-2013)

MIKE BULINSKI received his B.S. degree in Chemistry in 2001 and a M.S. degree in Chemistry in 2003 from the University of Minnesota Duluth. For his Master's thesis he studied synthetic boron chemistry, specifically benzoboroxole type compounds. He began working for 3M company in 2004 as a contract chemist and then in 2006 became a full time employee in the Electronic Markets Materials Division. During his time at 3M he has worked in the area of synthetic fluorine chemistry in new product development for fluorinated liquids and battery materials. He is the co-inventor on seven published patent applications and a co-author on published papers in the *Journal of the Electrochemical Society*. He recently presented a paper at the 20th Winter Fluorine Conference entitled, "Hydrofluoroethers, New Chemistry and Applications".

DAVID A. DIXON received a B.S. in chemistry from Caltech in 1971 where he did undergraduate research in x-ray crystallography and ion cyclotron resonance spectroscopy. He received a PhD from Harvard University in physical chemistry in 1976 where he worked on molecular orbital theory with Prof. William Lipscomb (Nobel Prize in Chemistry, 1976) and crossed molecular beam chemistry with Prof. Dudley Herschbach (Nobel Prize in Chemistry, 1986). He is currently the Robert Ramsay Chair the Department of Chemistry at The University of Alabama where he has been since 1/2004. Prior to moving to UA, he was Associate Director for Theory, Modeling, & Simulation (TM&S) in the William R. Wiley Environmental Molecular Science Laboratory at the Pacific Northwest National Laboratory and a Battelle Fellow for 8 years. He also spent more than 12 years at DuPont's Central Research at the Experimental Station in Wilmington, Delaware which is where he became involved with fluorine chemistry with a specific focus on CFC replacements, fluoropolymers and catalysis. He has received a number of awards including a Junior Fellowship at Harvard University (1975 – 1977), Sloan and Dreyfus Fellowships in 1977 and 1978, the 1989 Leo Hendrik Baekeland Award of the American Chemical Society (for accomplishments by a chemist under the age of 40), the 2003 American Chemical Society Award for Creative Work in Fluorine Chemistry, and a 2010 DOE Hydrogen Program R&D Award for Outstanding Contributions to Hydrogen Storage Technologies. He is a Fellow of the American Association for the Advancement of Science and of the American Physical Society and a member of the European Academy of Sciences. He has previously been on the Executive Committee of the Division of Fluorine Chemistry, has served as Program Chair and Chair of the Division in 1998, and was Chair of the 2011 Winter Fluorine Conference. His main research efforts are

using electronic structure theory to solve chemical problems in catalysis, geochemistry especially for CO₂ sequestration, biochemistry of amino acids and peptides for anion-based proteomics, relativistic effects for environmental studies and advanced nuclear fuel cycles, chemical hydrogen storage materials, nanostructures and nanostructured materials, and fluorine and main group chemistry. He actively involves undergraduates in research and has had more than 40 undergraduates in his research group since joining UA. These students have been very successful winning UA Randall Undergraduate Research Awards, Hollings Scholarships, Goldwater Scholarships, and 4 have been named to the USA Today All-USA College Academic Team.

VERONIQUE GOUVERNEUR was born in 1964 in Belgium. She received her MsC degree in chemistry at the Universite Catholique de Louvain (LLN, Belgium). She stayed in Belgium for her doctoral studies carried out under the supervision of Prof. L. Ghosez. During this time she focused on the development of new reaction methodology directed towards the stereocontrolled formation of hetero Diels-Alder adducts derived from activated 2-azadienes combined with nitroso heterodienophiles. In 1992, Veronique left Belgium and moved to a post-doctoral position with Prof. R. A. Lerner at the Scripps Research Institute (California, USA) where her studies culminated with the generation of the first exo and endo Diels-Alderase antibodies. She returned to Europe in 1994 where she accepted a position of Maitre de Conference at the University Louis Pasteur in Strasbourg (France). She worked with Dr C.s Mioskowski during this period and was Associate Member of the ISIS Institute directed by Prof. Jean-Marie Lehn. She started her independent research career as a member of the chemistry faculty at the University of Oxford in September of 1998, where her group's research interests are centred around new approaches to organic synthesis with specific interests in new reaction design, enantioselective catalysis and the synthesis of bio-relevant targets. More particularly, she has initiated a research programme aimed at developing new tactical approaches towards fluorinated molecules to address long-standing problems in the synthesis of fluorinated analogues of natural products, pharmaceutical drugs and molecular probes for PET imaging. Since her appointment in Oxford, she also holds a tutorial fellowship at Merton College Oxford where she teaches organic chemistry. Since 2008, she was conferred the title of Professor in Chemistry by the University. Veronique's research was recognized by the AstraZeneca award for Organic chemistry, the RSC Bader Award, the Thieme Chemistry Journal Award as well as most recently the Liebig Lectureship Award of the Organic Division of the German Chemical Society. She is a member of the Editorial

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BIOGRAPHICAL DATA OF THE CANDIDATES FOR OFFICES OF THE DIVISION OF FLUORINE CHEMISTRY

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Board of the RSC Journal Organic and Biomolecular Chemistry, and a member of the Academic Advisory Board of Advanced Synthesis and Catalysis and Beilstein J. Org. Chem. She is the UK representative of EuChem Organic Chemistry Division and Vice-President of the RSC Organic Division.

RALF HAIGES (b. 1972) is an inorganic chemist by training with over 15 years of research experience. He has authored and co-authored more than 40 scientific publications and presentations. A native of Germany, Ralf studied chemistry at the University of Wuppertal in Wuppertal, Germany. He earned his M.S. for his work about "The Chemistry of donor-free Bis(trifluoromethyl)cadmium" in 1997. He received a Ph.D. from the University of Wuppertal in 2000. The topic of his dissertation was "Difluorocarbene reactions of (CF₃)₂Cd: Asymmetric Difluorocyclopropanations". The following year, Ralf joined the research group of Karl Christe at USC in Los Angeles as a Post Doc. His primary research interests are fluorine chemistry, energetic materials, and X-ray crystallography. Ralf published several papers about fluorine chemistry and is the author of over a dozen articles on binary polyazide and polynitrogen chemistry.

Since 2010, Ralf is an Assistant Professor at the University of Southern California in Los Angeles. He is also the coordinator of the X-ray Crystallographic Facilities at USC and teaches X-ray crystallography. He is a member of the ACS Fluorine Division, the American Crystallographic Association (ACA), and the Gesellschaft Deutscher Chemiker (GDCh).

JINBO HU was born in Zhejiang, China (1973). He obtained his B.S. (1994) and M.S. (1997) degrees at Hangzhou University and Chinese Academy of Sciences (CAS), respectively. He did his Ph.D. work during 1997-2002 at the University of Southern California (USC) with Professors G. K. S. Prakash and G. A. Olah. After his postdoc work at USC with Professors Prakash and Olah, he accepted the Research Professorship at Shanghai Institute of Organic Chemistry (SIOC), CAS in early 2005. His research interests are in selective fluorination methodologies and fluorinated materials. Currently, he is the Head of Key Laboratory of Organofluorine Chemistry at SIOC. He has published nearly 70 scientific papers and book chapters. His honors and awards include: RSC Fluorine Prize (2009); NSFC Outstanding Young Scholar (2008); Chinese Chemical Society Young Scholar Award (2007); Air Products Young Faculty Excellence Award (2005).

CHRISTOPHER P. JUNK was born and raised in Manitowoc, Wisconsin. He received a B.S. degree in chemistry from St. Norbert College in 1995, and a Ph.D. in chemistry from Dartmouth College in 2000. While in David Lemal's

group at Dartmouth, Chris was a two-time recipient of the Walter H. Stockmayer Chemistry Graduate Fellowship. He started his industrial career with DuPont in 2000 by taking a position in the Teflon® Research group at the Parkersburg, West Virginia production plant. In 2003 he transferred to DuPont Central Research & Development in Wilmington, Delaware and has been there since.

Chris' research interests include fluorinated small molecules (especially superacids, ionic liquids, and surfactants), as well as the synthesis / characterization of fluoroplastics and fluoroelastomers. He is a co-inventor on over 22 issued patents and co-author on 12 publications.

In his free time, Chris enjoys riding his bike and spending time with his wife (also a chemist) and three young children.

SEBASTIAN RIEDEL, born 1975, began his practical training 1991 as a chemistry laboratory technician at Siemens and Degussa in Hanau, Germany. He studied first at the University of Siegen and later on at the University of Würzburg where he finished his Diploma thesis on HgF₄. During his PhD studies at the Institute of Inorganic Chemistry at the University of Würzburg in the group of Prof. Martin Kaupp, he investigated the stability of high oxidation state 5d transition metal fluorides by quantum-chemical calculations. For this work he received the Faculty Award in chemistry and the Bavarian culture award.

In 2006 he started his postdoctoral work at the University of Helsinki in the research groups of Prof. Pekka Pyykkö and Prof. Markku Räsänen where he continued practical aspects of his research on high oxidation states using matrix-isolation spectroscopy. In 2008, he had a postdoctoral stay in the laboratory of Prof. Gary J. Schrobilgen at McMaster University Canada where he dealt with various aspects of preparative inorganic fluorine chemistry.

Supported by a Liebig-scholarship from the German Chemical Industry (FCI), he started his "Habilitation" at the Albert-Ludwigs University, Freiburg where he combined all three areas of research (quantum-chemical calculations, preparative fluorine chemistry and matrix-isolation spectroscopy), investigating highly fluorinated systems such as HgF₄, AuF₅-F₂ and [F₃]⁻. For his research he has received in 2011 the "ADUC" award of the year from the German Chemical Society (GDCh).

GRAHAM SANDFORD obtained his Ph.D. in Organofluorine Chemistry at Durham, under the supervision of Prof. R.D. Chambers. After a period as a postdoctoral research fellow in the laboratories of Prof. George Olah (USC), he transferred back to Durham. Following post-doctoral work with Prof. Chambers and support from F2 Chemicals Ltd. (BNFL), he was awarded a Royal Society (UK Academy of Science) University

Research Fellowship, which began in October 1996. He was appointed to a Lectureship in the Department of Chemistry at Durham in March 2001, Senior Lecturer in October 2004 and promoted to Chair beginning in October 2008. He has published over 120 research papers, review articles and patent applications, mainly in the field of organofluorine chemistry. GS has been invited to present keynote lectures at many international symposia and venues (notably the 14th European Symposium on Fluorine Chemistry, Poland, 2004; American Chemical Society Winter Fluorine Symposium, U.S.A., 2005; American Chemical Society Meeting, U.S.A., 2005; 18th International Symposium on Fluorine Chemistry, Germany, 2006; invited to give lecture tours in China, 2003, funded by PRC Department of Education; Japan, 2007-9, funded by industry), is a member of the Editorial Board of *J. Fluorine Chem.* and has been involved in the organisation of various international fluorine symposia (Committee member of the 16th International Symposium on Fluorine Chemistry, Durham, 2000; organiser of RSC Fluorine Group Symposia, Durham, 2004 and 2010; an overseas member of the Scientific Organising committee for 19th International Symposium on Fluorine Chemistry, U.S.A., 2009).

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 ^{99}Tc 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 (2002-2004), Chair (2005) and Past Chair of the Fluorine Division (2006), as well as serving as a member of the Executive Committee at Large (2007-2011). Most recently, he has received a Humboldt Forschungspreis (Research Award) from the Alexander von Humboldt Foundation.

DENNIS W. SMITH JR. is the *Robert A. Welch Chair and Professor of Chemistry* Department of Chemistry and The Alan G. MacDiarmid NanoTech Institute The University of Texas at Dallas, Texas.

Professional preparation Missouri State University Chemistry and Mathematics B.S. 1988, University of Florida Organic / Polymer Chemistry Ph.D. 1992, Dow Chemical Germany Coatings Technology Postdoctoral Fellow 1993. Appointments: May 2010 – Robert A. Welch Professor of Chemistry, University of Texas at Dallas, Richardson, TX 2008-2010; Professor of Material Science and Engineering (Joint Appt.), Clemson University, Clemson, SC 2006-2010; Professor of Chemistry, Clemson University, Clemson, SC 2004-2010; Associate Director, Center for Optical Materials Science & Engineering Technologies 2001-2006; Associate Professor, Clemson University, Clemson, SC 1998-2000; Assistant Professor, Clemson University, Clemson, SC 1996-1998; Project Leader, Dow Chemical, Central Research, TX 1994-1996 Sr. Research Chemist, Dow Chemical, Central Research, TX and MI 1993; Postdoctoral Fellow, Dow Chemical, Rheinmuenster, Germany 1991; Graduate Research Fellow, Rhone Poulenc, Lyon, France. Synergistic Activities: American Chemical Society: Division of Polymer Chemistry, Chair (2009), IUPAC Liason (2006-), Alternate Councilor (Elected 2005-2007), Workshops Co-Chair, (Appointed 2003-), Councilor (Elected 2002-2005), Symposium and Workshop Organizer, "FLUOROPOLYMER", Chair and Founder, 2000-2008. Elected Associate Member, IUPAC Polymer Division (2009). Editor, *Polymer Bulletin*, Springer, 2007-present; Editorial Board, *Polymers for Advanced Technology*, 2006-present. Editorial Board, *High Performance*

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Polymers, 1999-present. Visiting Professor, Universität Heidelberg, Physical Chemistry Institute, Germany, 2001. Tetramer Technologies, L.L.C., Co-founder. Honors: Fellow of the *American Chemical Society* (Elected 2010), SC Governor's Award (2009), Charles Stone Award (2008), Missouri State University Outstanding Alumni Award (2007), Cottrell Scholar of Research Corporation (2001), Clemson University Board of Trustees Faculty Excellence Award (2000, 2001, 2004, 2006, 2007, 2008), Clemson University Award for Faculty Achievement in the Sciences (2000), National Science Foundation (NSF) Faculty Early CAREER Development Award (2000), Sigma Xi, 3M Corporation Pre-tenured Faculty Award (1999), Dow Chemical Polymer Research Award (1999), Dow Chemical Central Research Inventor of the Year (1997).

Collaborators and Other Affiliations: Earl Wagener, Tetramer Technologies, L.L.C.; Joe Mabry, AFRL/PRSM, Edwards Air Force Base, Edwards, CA; Stephen Creager, Chemistry, Clemson University; Bruno Ameduri, CNRS, Ecole Nationale Supérieure de Chimie, Montpellier FRANCE; John Ballato, Material Science & Engineering, Clemson University; Stephen Foulger, Material Science & Engineering, Clemson University; Darryl DesMarteau, Chemistry, Clemson University; Luis Echegoyen, Chemistry, Clemson University; Wesley Hoffman, AFRL/PRSM, Edwards Air Force Base, Edwards, CA; Dvora Perahia, Chemistry, Clemson University; Greg Nordin, Electrical and Computer Engineering, Brigham Young University. Total Number of Graduate Students Advised and Postdoctoral Scholars Sponsored: 5 M.S. graduated, 15 Ph.D. graduated (9 current), 9 postdoctoral scholars sponsored (2 current) dwsmith@utdallas.edu

JOSEPH THRASHER is currently a Professor at the Department of Chemistry at The University of Alabama (UA) and will soon be moving to Clemson University. After receiving his B.S. degree in Chemistry in 1978, he remained at Virginia Tech for his Ph.D. studies in Inorganic Chemistry under the direction of Alan F. Clifford. Upon completion of his Ph.D. in 1981, he took a postdoctoral position with Konrad Seppelt at the Freie Universität Berlin. During the 1983-84 academic year, he was a Visiting Assistant Professor at Clemson University where he both taught and carried out research with Darryl D. DesMarteau. He began his independent academic career at Alabama in 1984 and became Chair in 2002 after serving as Director of Graduate Studies for seven years. The UA Department of Chemistry currently has all-time highs in the number of faculty, graduate students, and chemistry majors, and recently moved into a new facility during the summer of 2004 (see *Chemical and Engineering News*, June 7th, 2004 issue). His research interests, funding, and publications are in three primary areas: (1)

main-group fluorine chemistry, (2) industrial fluorine chemistry, where he has had eighteen consecutive years of research support from the DuPont Company, and (3) fuel cell technology. He has been very active in the American Chemical Society (ACS), especially in the Division of Fluorine Chemistry, where he has served in a number of offices, including Chair in 1994. He has also organized a number of symposia and conferences, including having been co-chair of two ACS Winter Fluorine Conferences (1993 and 1995) and was the organizing chair of the 19th International Symposium on Fluorine Chemistry (ISFC) held in Jackson Hole, WY August 23-28, 2009. Since 1997, he has also been the lead U.S. delegate on the International Steering Committee that helps decide future sites of European and International Symposia on Fluorine Chemistry. He currently also serves on the Governing Board of the Council for Chemical Research (CCR).

TERUO UMEMOTO was born in Yamaguchi in Japan. He studied chemistry at Okayama University where he received a B.S. in chemistry (1971), and entered the Graduate School of Osaka University to get a M.S. (1973) and a Dr.S. degree (1976) in organic chemistry under the direction of Prof. S. Misumi. In 1978, two years after he got a position of a researcher in Sagami Chemical Research Center, he started and developed his fluorine chemistry there. His position was a chief researcher when he left there in 1990. He moved to Daikin Industries, Ltd. where he advanced his fluorine chemistry as a manager of the Basic Chemistry Department. After he left Daikin in 1998, he immigrated to U.S.A. and started IM&T Research, Inc. in Denver, Colorado in 1999. Since then, he has managed the research company as a president. He will successfully close the IM&T at the end of March 2011 as UBE America Inc. has taken over the business and laboratory of the IM&T. He has served as a consultant for the UBE since November 2010. His research interests include fluorination, trifluoromethylation, perfluoroalkylation, and new fluorinated materials. His major works are electrophilic perfluoroalkylating agents FITS reagents, power-variable electrophilic fluorinating agents N-fluoropyridinium salts and their 2-sulfonates and powerful double N-F reagents N,N'-difluorobipyridinium salts and N,N'-difluorodiazoniabicyclo[2.2.2]octane salts, and power-variable electrophilic trifluoromethylating agents O-, S-, Se-, and Te-CF₃-dibenzoheterocyclic onium salts. His recent researches are the novel and versatile deoxofluorinating agent 4-tert-butyl-2,6-dimethylphenylsulfur trifluoride (Fluolead™) and the first useful industrial processes for producing arylsulfur pentafluorides. He was awarded a "Progress Award" of the Chemical Society of Japan for young active chemists for creative works in 1983. He

is a member of the American Chemical Society, the Japanese Chemical Society, and the Society of Synthetic Organic Chemistry of Japan.

NEIL VASDEV, PH.D. was recently recruited as the Director of Radiochemistry at Massachusetts General Hospital and as an Associate Professor at Harvard Medical School. He is presently an Associate Professor at the University of Toronto and a Senior Scientist (Radiochemist) at the Centre for Addiction and Mental Health (CAMH). In 2003, he completed his PhD focusing on fluorine-18 chemistry under the co-supervision of Prof. Raman Chirakal and Prof. Gary Schrobilgen. He went to complete a postdoctoral fellowship to further his training in 18F-radiopharmaceutical chemistry in the Department of Functional Imaging at the E.O. Lawrence Berkeley National Laboratory under the supervision of Dr. Henry VanBrocklin. In 2004, he joined the CAMH PET Centre and the University of Toronto. He has focused his own radiopharmaceutical chemistry research on developing new 18F-labelled imaging agents for investigating cerebral metabolism and disorders of the human brain, as well as developing new 18F-labelled intermediates for stereoselective and regioselective reactions that enable rapid incorporation of radioisotopes into organic compounds. In 2005, he was awarded a Moissan Fellowship from the Division of Fluorine Chemistry, shared with Prof. Andrei Yudin. He has received honors for his PET radiochemistry research including the First Place Young Investigators Award in 2006 from the Society of Nuclear Medicine, as well as young investigator awards from the University of Toronto and the Canadian Society of Nuclear Medicine. Last year he was awarded an Early Researcher Award from the Ontario Ministry of Research and Innovation.

DIVISION COUNCILOR (*Three-year term, 2011-2013*)

DONALD J. BURTON, Professor Burton received his Ph.D. from Cornell University where he worked under the direction of Professor William T. Miller, Jr. After postdoctoral work at Purdue University with Professor Herbert C. Brown, he joined the faculty at the University of Iowa in 1962 and he was the Carver/Shriner Professor of Chemistry from 1989-2007 and Emeritus Professor from 2007 to the present. Professor Burton has been an active contributor to the field of organofluorine chemistry especially in the areas of fluorinated ylides, fluorinated organometallic reagents, fluorine-containing phosphonates and more recently in the development of 1,2-difluoroethynyl synthons. He and his students have published more than 300 papers in organofluorine chemistry. In 1979 he was a Fellow of the Japan Society for the Promotion of Science; in 1985 he was an Invited Lecturer of the Chinese Academy of Sciences, in 1986 and invited Lecturer of the Korean Advanced Institute of Science and Technology, and in 1990 an Invited Lecturer of the Soviet Academy of Sciences. In 1984, he was the recipient of

the ACS Award for Creative Work in Fluorine Chemistry, and in 1990 he was a recipient of the Midwest American Chemical Society Award. In 2003, he was the recipient of the ACS Division of Fluorine Chemistry Distinguished Service Award. The following are positions held in the Fluorine Division: Program Chair (1977); Chair (Division) 1978; Executive Committee (1967-1970, 1977-1980); Selection Committee for Fluorine Award (1977, 1978, 1984, 1985, 1989-1991); Nomination Committee (1977, 1983); Co-organizer for the 12th International Fluorine Symposium, Santa Cruz, CA (1988); Member of the International Steering Committee for the International Fluorine Symposium (1978-2004), Chair of the Committee on "New Initiatives" of the Fluorine Divisions (1990-1991); Councilor of the Fluorine Division (1983-present).

ALTERNATE COUNCILOR (*Three-year term, 2011-2013*)

PAUL R. RESNICK received a B.A. degree in Chemistry from Swarthmore College (1955) and a Ph.D. degree in Organic Chemistry from Cornell University (1961). His thesis work, directed by Prof. W. T. Miller Jr., concerned reactions of unconjugated fluorinated dienes. After two years of postdoctoral work at the University of California (Berkeley) with Prof. William Dauben he joined the DuPont Company in 1962 as a research chemist. At DuPont his work was almost entirely devoted to fluorine chemistry, primarily fluorinated monomers and polymers. He retired from DuPont in February 2004 as a DuPont Fellow and at present is the head of a consulting company, FluoroScience LLC and has held adjunct professorships at the University of North Carolina (Chapel Hill) and North Carolina State University. He holds many United States patents, some useful, as well as authoring scientific papers and delivering many presentations at scientific conferences and Universities.

He was a charter member of the Division of Fluorine Chemistry and served the Division as a member of the Executive Committee (1979-81), Secretary-Treasurer (1982-3), Chair-Elect (1984) and Chair (1985). At present he is the Alternate Councilor of the Division. He was the Chair of the 7th Winter Fluorine Conference as well as a member of the organizing committees of several International Fluorine Symposia. He was a co-chair of the 1988 12th International Fluorine Symposium in Santa Cruz, CA.

He was the recipient of the ACS Award for Creative Work in Fluorine Chemistry (1995) and the DuPont Lavoisier Medal for Scientific Achievement (1996).

VICE-CHAIR/SECRETARY (*Three-year term, 2011-2013*)

CHADRON M. FRIESEN, since 2010, is a Professor of Chemistry at Trinity Western University in British Columbia, Canada. He also holds an adjunct appointment at Simon Fraser University since 2004 and became a member of a start-up company, Material Sequences LLC., in 2010. He was awarded the Trinity Western University Research Fellow in 2005. Friesen's research interests

BIOGRAPHICAL DATA OF THE CANDIDATES FOR OFFICES OF THE DIVISION OF FLUORINE CHEMISTRY

Continued from previous page

reside in industrial applications of fluorine chemistry. Many of Friesen's journals and patents focus on the design of fluorinated ether stability, functionality, and expanded applications. Current effort in Friesen's laboratory with his graduate students is on the development of fluorinated ether functionality in applications of fluorinated biphasic systems (FBS). Chad Friesen completed a B.S. in Chemistry and a B.S.E. in Secondary Education from John Brown University in Siloam Springs, Arkansas in 1995. In 1996, he began graduate school at The University of Alabama in Tuscaloosa, AL, under the direction of Joseph S. Thrasher. Additionally, Jon L. Howell at DuPont co-supervised Friesen in the latter part

of his Ph.D. degree while Friesen was employed by DuPont. Friesen completed his Ph.D. in 2000 and began his independent career with Trinity Western University in 2000. He teaches general, organic, and analytical chemistry, thermodynamics, and advises research students in fluorine chemistry both at the undergraduate and graduate level. In addition to Friesen's academic work, he has spent time as a visiting scientist at E. I. du Pont de Nemours and Co., Inc. (i.e. DuPont). Terms at DuPont ranged from several months in 2001, to a one year sabbatical term in 2006-2007. Friesen has served in the interim vice-chair/secretary role in 2010 for the ACS Division of Fluorine Chemistry. ■

OFFICIAL ELECTION BALLOT

DIVISION OF FLUORINE CHEMISTRY OFFICES FOR 2011

EXECUTIVE COMMITTEE *(Vote for five)*

- | | |
|---|--|
| <input type="checkbox"/> Mike Bulinski | <input type="checkbox"/> David A. Dixon |
| <input type="checkbox"/> Veronique Gouverneur | <input type="checkbox"/> Ralf Haiges |
| <input type="checkbox"/> Jinbo Hu | <input type="checkbox"/> Christopher P. Junk |
| <input type="checkbox"/> Sebastian Riedel | <input type="checkbox"/> Graham Sandford |
| <input type="checkbox"/> Gary J. Schrobilgen | <input type="checkbox"/> Dennis W. Smith Jr. |
| <input type="checkbox"/> Joe Thrasher | <input type="checkbox"/> Teruo Umemoto |
| <input type="checkbox"/> Neil Vasdev | |

DIVISION COUNCILOR *(Vote for One)*

- Donald J. Burton
- Write-in candidate: _____

ALTERNATE DIVISION COUNCILOR *(Vote for One)*

- Paul R. Resnick
- Write-in candidate: _____

VICE-CHAIR SECRETARY *(Vote for One)*

- Chadron M. Friesen
- Write-in candidate: _____

VOTING INSTRUCTIONS:

1. Mail the completed Official Election Ballot in an envelope with your signature and printed name on the return address of the envelope. Ballots from unsigned envelopes will not be counted nor will Faxed ballots or those submitted in electronic form be counted.
2. Mail the completed ballot, **postmarked no later than 30 May, 2011**, to:
ROBERT G. SYVRET, TREASURER ACS Division of Fluorine Chemistry, 1156 Clearwood Drive, Allentown, PA 18103-5451 USA

**AMERICAN CHEMICAL SOCIETY
DIVISION OF FLUORINE CHEMISTRY**

- NEW MEMBERSHIP APPLICATION
 RENEWAL
 CHANGE OF ADDRESS

Name: (PROF. / DR. / MR. / MS.) _____

Employer: _____

Address: _____

Business Phone: _____ Fax: _____

Home Phone: _____ E-mail: _____

ALL OF THE ABOVE INFORMATION WILL BE INCLUDED IN THE DIVISION'S DIRECTORY, WHICH IS SENT TO ALL MEMBERS IF YOU OPT-IN. PLEASE CHECK ONE BELOW:

- I AGREE TO HAVE MY INFORMATION PUBLISHED IN THE FLUORINE DIVISION MEMBERSHIP DIRECTORY.
 I DO NOT CHOOSE TO HAVE MY INFORMATION PUBLISHED IN THE FLUORINE DIVISION MEMBERSHIP DIRECTORY.

CURRENT MEMBER OF ACS? YES NO

IF YES, MEMBERSHIP NUMBER: _____

NEW MEMBERS OF THE FLUORINE DIVISION WILL HAVE THEIR DUES WAIVED FOR THE FIRST YEAR ONLY. THE RENEWAL DUES FOR 2011 ARE \$10.00 FOR ACS MEMBERS AND \$17.00 FOR NON-ACS MEMEBRS (FOREIGN MEMBERS: PLEASE MAKE SURE THAT YOUR CHECK IS IN U.S. DOLLARS DRAWN ON A U. S. BANK.)

Dues Enclosed: \$ _____

PLEASE SEND FORM TO:

Stephen DiMagno, Department of Chemistry
University of Nebraska, 850 Hamilton Hall
Lincoln, NE 68588-0304 USA

Preferred method of return is electronic to Steve DiMagno: sdimagno1@unl.edu



ACS NEWS

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

2011 EXECUTIVE COMMITTEE

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COUNCILOR

DON BURTON - USA

ALTERNATE COUNCILOR

PAUL RESNICK - USA

COMMITTEE MEMBERS AT LARGE

ALAIN TRESSAUD - France
GARY J. SCHROBILGEN - Canada
JOSEPH S. THRASHER - USA
DAVID O'HAGAN - Scotland

NEW DIVISION WEBSITE:

<http://fluorine.sites.acs.org>

THE ACS COUNCIL MEETING WILL BE HELD ON WEDNESDAY,
MARCH 30, 2011 IN ANAHEIM, CA, USA.
A REPORT WILL BE GIVEN IN THE FALL NEWSLETTER.

PLEASE VOTE BY **MAY 30**.
OFFICIAL BALLOT ON **PAGE 6** OF THIS NEWSLETTER.