

Newsletter

EDITOR'S COMMENTS

For the 60th anniversary of the Coblenz Society, I wanted to learn more about the man for whom our society is named. By all accounts, William Weber Coblenz was a prolific writer, innovative engineer, and meticulous spectroscopist. He is largely credited with validating that certain functional groups shared infrared frequencies. Coblenz's impressive cadre of infrared spectra confirmed qualitative observation and formalized the study of using infrared spectroscopy for molecular composition and structural analysis. His many scientific accomplishments are highlighted in his biography on the coblenz.org website. In this issue, I hope to shed light on another interest of William Coblenz that was briefly mentioned in his biography on our website.

William Coblenz was an avid gardener. His love for plants was developed during childhood as he helped local women cultivate herbs and flowers. This lifelong passion was evident in both his personal and professional life. For example, Coblenz cultivated a "Victory Garden" on the grounds of the National Bureau of Standards during World War I. Early in his memoir of Coblenz, William Meggers recounts when Coblenz gifted him a star magnolia and two holly shoots. The shoots grew in the Meggers' yard to become a large tree—a constant reminder of a "considerate and generous friend" for many years. This tender memory reminds me that even seemingly simple gestures can make a lasting impression. And, long lasting friendships are often the most satisfying aspect of a well-tended professional life.

Perhaps we can think of our professional growth as a plant grows. Where we develop roots is important. Rich soil, proper nutrition, sunshine, and fresh air nurture the plant. Membership and volunteerism in professional societies can reap many benefits, no matter your age or stage of life. I hope that you look to the Coblenz Society as an important nutrient for your professional growth! Our new mentorship program can build bridges between the veteran spectroscopist and the abecedarian. Our many awards honor scientific excellence. And, our ample opportunities to volunteer within the Society can help build your professional network and develop new skills. If you ask any Coblenz member, they are happy to tell you how they were warmly welcomed and invited to participate in this dynamic society. And, I am sure that I am not the only one who can say they have met friends through the Coblenz Society! For the scientific excellence, dedication to fostering the education of vibrational spectroscopy, and growing new friendships, I am a proud member of the Coblenz Society. I am positive that Member #1, Dr. W.W. Coblenz, was also proud of his membership.

As Francis Esmonde-White takes on other responsibilities within the society, he will be leaving as a co-editor. I thank him for his work in editing the newsletter. Importantly, he and Ian Lewis worked diligently to electronically archive all of the historical newsletter issues. The archived issues are available on the Coblenz.org website, and I hope that

you will enjoy reading them as much as I have. I welcome Katherine Cilwa, from the Naval Medical Research Center, as co-editor. Katherine has extensive experience in molecular and biomedical spectroscopy. She earned her Ph.D. in 2011 from the Ohio State University in Chemistry under the mentorship of James Coe. Katherine then moved to the University of Michigan for a postdoctoral fellowship with Michael Morris in biomedical Raman spectroscopy. Katherine is active in Coblenz, FACSS, and volunteers as a reviewer for biomedical optics and spectroscopy journals. She also enjoys cooking and spending time with her husband, Jerin, and their three Boston Terriers.

Karen Esmonde-White and Katherine Cilwa

PRESIDENT'S MESSAGE

2013 was a good year for the Coblenz Society and we are looking for an even better 2014, which will be the 60th anniversary of the Coblenz society.

SCIX 2013

SciX 2013 in Milwaukee was a very successful conference. We sponsored several awards and 12 sessions. In particular, our sessions about Process Analytical Technology were well attended and generated good discussions. I want to thank the efforts of Linda Kidder who organized about a dozen sessions at the meeting on various aspects of vibrational spectroscopy. Linda has served the Society in the capacity of conference session organizer for close to ten years and has done an outstanding job! Linda will be stepping down from that role in 2014. We welcome Curt Marcott who will succeed Linda in this capacity.

LIPPINCOTT CHALLENGE

The Ellis R. Lippincott Award is presented annually to outstanding vibrational spectroscopists. It is co-sponsored by the Coblenz Society, the Society for Applied Spectroscopy, and the Optical Society of America. The award is presented in memory of Professor Ellis R. Lippincott to scientists who have made significant contributions to vibrational spectroscopy as judged by their influence on other scientists. Later in this issue, we have a related article about Ellis Lippincott. Shortly before the SciX 2013 conference began, our past President Dr. Michael Myrick, was notified that an anonymous donor was challenging the Coblenz Society to raise \$5000 before the end of 2013. If the Coblenz Society could raise \$5000, the anonymous donor would match the donation. This is significant because the endowment that supports the award is well below the size that would support the award and it would be in some danger of running out of funds. We are pleased to announce that we have raised the \$5000!

COBLENTZ SOCIETY MEMBERSHIP REPORT

Contributed by Mark Druy

We have completed our transition to the Wild Apricot Membership Service. In addition to dues payment reminders, online dues payment capability and online event registration, we are now sending all our membership e-blasts through Wild Apricot. As a result, we have discontinued our use of Constant Contact.

With the total migration to Wild Apricot, I would like to recommend to all Coblentz Members that you pay your dues directly to the Coblentz Society rather than paying them through SAS when you renew your SAS dues.

If you get a dues notice from the membership system and you have recently renewed your membership through SAS, please don't hesitate to get in touch with our Membership Chair, Mark Druy, (mark.drui@coblentz.org) so that he can modify your membership renewal date.

SCIX 2013

The 2013 annual Great Scientific Exchange (SciX) meeting of the Federation of Analytical Chemistry and Spectroscopy Societies (FACSS) was held in Milwaukee, WI. The Coblentz Society had a robust presence. We organized 12 technical sessions, presented the Craver Award and the Coblentz Student Awards (including the Fateley Student Award), held a benefit luncheon to replenish the Fateley and Lipincott endowments, and had a booth in the Exhibit Hall.

We presented the Craver award to Dr. Rohit Bhargava, from the University of Illinois at Urbana-Champaign. He gave the plenary talk on Tuesday of the conference entitled "Emerging Trends in Infrared Spectroscopic Imaging: From Theory to Therapy". Thanks to SciX and our education committee you have the opportunity to view the presentation. Just go to the [Coblentz.org](http://www.coblentz.org) web page can click on the Craver Award. The podcast of the presentation is at the bottom of the Craver award page (<http://www.coblentz.org/awards/the-craver-award>).

We gave four Coblentz Student Awards this year. Our Fateley student award winner, Tomasz Wrobel, is doing graduate work at Jagiellonian University in Krakow, Poland. He was unable to attend and received his award later in October. Tomasz expressed his thanks to the Coblentz Society saying that "The plaque is very impressive as I have never before been awarded anything like it". The other three student awardees are:

s3ARAH(OLTON, University of Illinois at Urbana-Champaign,
Prof. Rohit Bhargava

s2ACHEL-ASYUK@university of Notre Dame, Dr. Paul W. Bohn
s4AO,IANG, University of Georgia, Prof. Gary Douberly



In the above photo, Jim Ryzdak presents the Coblentz student awards to (from left): Sarah Holston, Rachel Masyuko, and Tao Liang. Not pictured: Tomasz Wrobel

We also sponsored and organized ten technical sessions. For many years, Linda Kidder has chaired the molecular spectroscopy section. Curt Marcott will be taking over for Linda Kidder as the FACSS Section Chair for the Coblentz Molecular Spectroscopy sessions for 2014, and he encourages anyone interested in organizing a session for the Reno meeting to contact him.

Chemistry in Art and Archeology
(Mary Kate Donais and Peter Vandenabeele)

This session demonstrated the diversity of techniques utilized by researchers in this field with talks on X-ray, secondary ion mass spectrometry, Raman, laser ablation inductively coupled plasma mass spectrometry, and gas chromatography studies. The applications were equally diverse—paintings, pigments, quartz, pottery, varnish and binders, copper artifacts, and education. Two graduate students were among the presenters this year. As is tradition, the participants in the sessions enjoyed a networking dinner together after the sessions.

Pharmaceutical Applications of Near Infrared Spectroscopy
(Robert Bondi and Benoit Igne)

The use of NIRS in the pharmaceutical industry has exploded since the inception of the process analytical technology (PAT) and Quality-by-Design (QbD) initiatives that focus on building quality into drug products by design. NIRS has been used for a broad range of activities in drug product development, including raw material characterization, determination of the active pharmaceutical ingredient (API) content in tablets and capsules, and in- and on-line process analysis which enables real-time analysis and control of unit operations. This year at The Great Scientific Exchange (SciX), the Coblentz Society sponsored a symposium dedicated to pharmaceutical applications of NIRS. The symposium was highlighted by speakers from industry (Dongsheng Bu, Bristol Myers Squibb and Zhenqi [Pete] Shi, Eli Lilly) and academia (Benoit Igne, Duquesne University). The featured topics included the use of compact NIR instruments for product and process monitoring, evaluation of instrument and chemometric parameters using multivariate figures of merit, and online monitoring of an API solution coating process.

Coherent Two-Dimensional Spectroscopy I
(Wei Zhao and Junrong Zheng)

Coherent Two-Dimensional Spectroscopy Symposium has turned to its ninth year since its first launch in FACSS in 2004. This year's symposium was in conjunction with a special event highlighting one of the pioneers in this field, Prof. John C. Wright at the University of Wisconsin-Madison, on the occasion of his 70th birthday. Over 40 colleagues, friends, and former students, some traveling from Korea, joined together with John's family to celebrate this special event in SciX 2013.



Coherent Two-Dimensional Spectroscopy symposium participants.

Spectroscopic Techniques in Forensic Investigations (Mary Miller)

Three talks described the use of spectroscopy in criminal forensic analysis of trace evidence and as applied to industrial problem solving investigations. The speakers, Rich Brown, John Reffner, and David Wetzel, have extensive backgrounds in industry and academia. Two speakers from Europe, Christian Huck and Megan Holden, presented data used for detecting counterfeit or adulterated products: one on the application of detecting the geographical source of food products and the other described spectroscopic methods of determining the presence of adulterated caramel color in Scotch whisky. The session was well attended by approximately 50 persons. It was an interesting variety of speakers and topics which highlighted the broadening scope of the investigative forensic approach.

Industrial Applications of Spectroscopy (Gloria Story)

Gloria Story organized the Industrial Applications of Spectroscopy session held at SciX 2013. On average, 35 people attended with a maximum attendance of 50. Michael Pelletier (Pfizer) presented Optimization and Application of Sensitivity-Enhanced Transmission Raman Spectroscopy. He described using a concave gold mirror with a hole in the center to collect lost photons. Luisa Profeta (MRIGlobal) discussed Vibrational Spectroscopy in the Field. She emphasized the importance of comprehensive training for all those using instruments in the field, as many users are not spectroscopists. Richard Crocombe (ThermoFisher) was unable to present his paper on Handheld Spectrometers: The State of the Art, however his colleague Lin Zhang stepped in. Lin shared applications using XRF, IR, and Raman field instruments and the importance of positive material identification (PMI). Tom Cambron (P&G) shared In-Vivo Optical Spectroscopy in Skin and Cosmetic Research, describing the non-invasive characterization of the molecular composition of skin and interactions between skin and topically applied products. Carl Anderson (Duchesne University and Strategic Process Control Technologies, LLC) stepped in with only an hour to spare to make it to the airport afterwards! He discussed web monitoring using near-IR imaging with a push-broom technology.

Nanoscale IR (Curtis Marcott)

The 2013 SciX Conference in Milwaukee marked the inaugural session on Nanoscale IR spectroscopy. This emerging field provides submicrometer IR spectra and images, well below the diffraction limit of conventional FT-IR microspectroscopy. Many of the leading research groups in the world were represented among the speakers. This successful session will be repeated at 2014 SciX conference in Reno, and is being organized by Anne Lemon from SABIC.

EAS 2013

The 2013 Eastern Analytical Symposium was held in Somerset, New Jersey. The Coblenz Society organized three sessions at the meeting:

- Spectroscopic Applications in Biologics (Brandye Smith-Goettler)
- Spectroscopic Applications in Biomedical Sensing (Brandye Smith-Goettler)
- Advanced Vibrational Spectroscopy: Instrumentation and Applications (Ian Lewis)

2014 WILLIAMS-WRIGHT AWARDEE

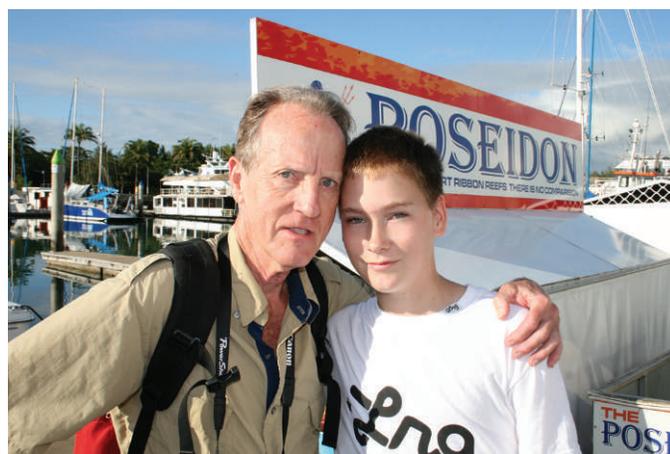
by Jim Ryzdak

The 2014 Williams-Wright Award winner was given to Dr. Mike Doyle in Chicago at Pittcon in March. Dr. Mike Doyle is the President of Axiom Analytical, Inc., a manufacturer of sample interfac-

ing equipment and systems for molecular spectroscopy. He is also President of Symbion Systems, which provides standardized process analytical software. Before founding Axiom, he was the President of Laser Precision Corp. and was the founder of its Analect Instruments Division, the first manufacturer of robust, process compatible, FT-IR spectrometers.

After leaving Laser Precision in 1988, Mike, with Norm Jennings founded Axiom Analytical, which has become a leading manufacturer of sample interfacing equipment for process spectroscopy. Its major products include in-line probes, flow cells, and fiber-optic multiplexers. The spectroscopic techniques served include mid-infrared, near-infrared, UV-visible, and Raman. Mike is the inventor of more than twenty five patents held by the company. In 2004, Mike and Norm formed Symbion Systems, Inc. to provide standardized instrument control, connectivity, and process monitoring software for the same markets served by Axiom's hardware products.

I extend my congratulations to Mike and look forward to presenting him the award at Pittcon 2014. For additional information about Mike go to the Coblenz.org web page and click on Williams-Wright award.



2014 COBLENTZ AWARD

The Coblenz Society is happy to announce that the 2014 recipient of the Coblenz Award is Dr. Peng Chen. Dr. Chen is the Peter J.W. Debye Professor in the Department of Chemistry and Chemical Biology at Cornell University. His group has pioneered the development and application of single-molecule fluorescence microscopy for studying catalysis on individual nanoparticles at the single-turnover resolution and nanometer precision. Moreover, his group pioneered the application of single-molecule fluorescence microscopy in bioinorganic chemistry, in particular on metal homeostatic proteins. He has discovered new mechanisms in metalloregulator-DNA interactions and gained insight into multi-body protein interactions involving metallochaperones. Dr. Chen received his B.S. in chemistry from Nanjing University, China, in 1997. After a year at University of California, San Diego with Prof. Yitzhak Tor learning organic synthesis, he moved to Stanford University and did his Ph.D. with Prof. Edward Solomon on the spectroscopy of metal active sites in proteins. In 2004, he joined Prof. X. Sunney Xie's group at Harvard University for postdoctoral research in single-molecule biophysics. He started his faculty appointment at Cornell University in 2005. He has received a Dreyfus New Faculty award, an NSF Career Award, a Sloan Fellowship, a Paul Saltman Award, and a CAPA Distinguished Junior Faculty Award.

He will be presented with the award at the International Symposium on Molecular Spectroscopy, June 16-20th, at the University of Illinois at Urbana-Champaign. For more information on the symposium, please visit the website at: <http://isms.illinois.edu/index.php>



2014 BOMEM–MICHELSON AWARDEE

by Jim Ryzdak

Our other major spring award is the Bomem-Michelson Award, sponsored by ABB Bomem. This year the award goes to Yukihiko Ozaki who will receive the 2014 Bomem-Michelson Award at Pittcon 2014 in Chicago. Professor Ozaki obtained his Ph.D. (1978) in chemistry from Osaka University and is currently a professor in the Department of Chemistry, at Kwansei Gakuin University, Sanda, Japan. He has been active in research involving a wide variety of molecular spectroscopies, including IR, Raman, NIR, and far-ultraviolet (FUV) spectroscopy. For the last four decades he has broadened the field of molecular spectroscopy in terms of both basic science and applications. Among his contributions, he expanded and developed areas of molecular spectroscopy such as NIR and FUV spectroscopy. His contributions to NIR spectroscopy include the development of NIR spectrometers, experimental techniques, and spectral analysis methods, experimental and quantum chemical calculation of overtones and applications from basic molecular science to applied spectroscopy. His work in FUV spectroscopy includes development of new spectrometers, studies of liquid water and aqueous solutions, studies of electronic transitions and structure of organic molecules in the liquid state, time-resolved spectroscopy and applications to liquids and solids. For additional information about Bomem-Michelson Award goes to the Coblenz.org web page and click on Bomem-Michelson Award.



EXCERPTS FROM SPECTROSCOPY MAGAZINE

For the past few years, we have enjoyed providing items published in Spectroscopy that we believe are of interest to readers. Laura Bush from Spectroscopy provided us with interviews from Spectroscopy Magazine's 2013 FACSS Interview Series that we hope you will enjoy!

Karen Esmonde-White and Katherine Cilwa

Trends in Infrared Spectroscopic Imaging

An interview with Rohit Bhargava, winner of the 2013 Craver Award. Professor Bhargava discusses current trends in IR spectroscopic imaging, including application-specific instrumentation, improvements in data interpretation, and identifying relationships between structure and spectra. This interview is part of the 2013 podcast series presented in collaboration with the Federation of Analytical Chemistry and Spectroscopy Societies (FACSS), in connection with SciX 2013, the federation's North American conference. <http://www.spectroscopyonline.com/spectroscopy/Featured+Articles/Trends-in-Infrared-Spectroscopic-Imaging/ArticleStandard/Article/detail/823010?contextCategoryId=49103>

Improving Raman Probes for Cosmetic and Medical Research

Paul Pudney and his team at Unilever won the 2013 William F. Meggers Award from Applied Spectroscopy for their paper describing the development a new Raman probe that improves the measurement of skin. The new probe makes it possible to obtain Raman measurements that provide a more detailed measurement of the biochemistry of different areas of the skin, such as of the underarm and scalp, and can help researchers advance the understanding of conditions such as eczema and dandruff, as well as to improve skin cancer diagnoses. <http://www.spectroscopyonline.com/spectroscopy/Podcast/Improving-Raman>

[Probes-for-Cosmetic-and-Medical-Research/ArticleStandard/Article/detail/822313?contextCategoryId=822313?topic=130](http://www.spectroscopyonline.com/spectroscopy/Articles/ArticleStandard/Article/detail/822313?contextCategoryId=822313?topic=130)

Nanometer-Scale Studies Using Tip Enhanced Raman Spectroscopy

Volker Deckert, the winner of the 2013 Charles Mann Award, is advancing the use of tip enhanced Raman spectroscopy (TERS) to push the lateral resolution of vibrational spectroscopy well below the Abbe limit, to achieve single-molecule sensitivity. Because the tip can be moved with sub-nanometer precision, structural information with unmatched spatial resolution can be achieved without the need of specific labels. <http://www.spectroscopyonline.com/spectroscopy/Articles/ArticleStandard/Article/detail/805030?topic=130>

WHO WAS ELLIS LIPPINCOTT?

Submitted by Jim Ryzdak

You may have heard about the Lippincott challenge and know that Coblenz helps to administer the Lippincott award annually. But who was Dr. Ellis Lippincott and what is he known for? Let's take a look at some of the recollections of Ellis Lippincott, as published in Spectroscopy in February 2013, by Dr. Peter Griffiths:

In the 1950s and 1960s, I believe that it is true to say that there were three leading academic practitioners of chemical infrared spectroscopy in the U.S.: Bryce Crawford, Richard Lord and Ellis Lippincott. Of the three, Lippincott probably had the widest range of interests. His first academic position was at Kansas State University, where he developed a potential function for the hydrogen bond that is usually known as the Lippincott-Schroeder potential. Forty years after the publication of this work, when the development of computers allowed sophisticated ab initio computations to be made, the Lippincott-Schroeder potential still proved to be an excellent model of the hydrogen bond.

Shortly after this work was published, Lippincott moved to the University of Maryland where he showed that his experimental skills were every bit as strong as his theoretical expertise. In a very productive partnership with scientists at the National Bureau of Standards, he was responsible for the development of the diamond anvil cell, with which spectra of materials at pressures up to 50,000 atm could be measured routinely. These devices are still being used today for applications as wide as explosives studies to forensic measurements.

In the early 1960s, there was a growing awareness that examiners in the U.S. Patent Office did not consider an infrared spectrum to be characteristic of a molecule for patent purposes. The Coblenz Society ran a symposium at the 1962 ACS National Meeting in Washington, DC. On behalf of the Society, Lippincott presented a definitive paper on "The Limitations and Advantages of Infrared Spectroscopy in Patent Problems" which was subsequently published in the Journal of the Patent Office. As a result, the Patent Office's view of IR spectroscopy underwent a major change that is still extant today. This last fact about Ellis Lippincott I believe is what has made vibrational spectroscopy the vibrant field it is today!

COBLENTZ LINKEDIN GROUP

If you have not already joined, we encourage all members to join the Coblenz LinkedIn group! It is a vibrant, useful tool where members can share professional news, articles of interest, or ask questions. We also solicit nominations for Coblenz-sponsored awards and en-

courage members to submit items for the Newsletter. We hope to see you online at <http://www.linkedin.com/groups?gid=1831157!>

CALL FOR NOMINATIONS FOR COBLENTZ SOCIETY AWARDS

In the spirit of rewarding excellence, we would like to take this opportunity to encourage you to nominate qualified candidates for the Society's awards. Coblentz honors individuals at all ages and experience levels, ranging from student awards to honorary memberships. Nomination information, requirements for each of the Society's awards, and online nomination forms can be found on the Coblentz Society's website (www.coblentz.org). The awards are a great way to recognize scientific achievements or service to the society. We encourage all members to take a look at the awards and consider nominating your fellow spectroscopist!

Your editors, Karen Esmonde-White and Katherine Cilwa

Bomem-Michelson Award. This award is dedicated to the memory of Professor A.E. Michelson, developer of the Michelson interferometer. ABB sponsors the award to honor scientists who have advanced the technique(s) of vibrational, molecular, Raman, or electronic spectroscopy. Contributions may be theoretical, experimental, or both. The recipient must be actively working and may be associated with the academic, industrial, government, or private sector. The awardee must be at least 37 years of age. The award consists of a crystal symbol of the Bomem-Michelson award and an honorarium. In order to ensure that the award is based on an independent evaluation of the candidate's achievements, the selection is made by a committee chosen by the Coblentz Society. The award is presented each year at the Pittsburgh Conference. The ABB sponsored Bomem-Michelson Award Symposium is held in honor of the awardee and immediately follows the presentation.

Previous recipients of the Bomem-Michelson Award are: Thomas G. Spiro (1987), Carl Linberger (1988), Richard J. Saykally (1989), William Klemperer (1990), Alan Pine (1991), Jyrki Kauppinen (1992), Jack L. Koenig (1993), Herbert L. Strauss (1994), Terry Miller (1995), Ira Levin (1996), William H. Woodruff (1997), Bruce Chase (1998), Sandy Asher (1999), John F. Rabolt (2000), Larry Nafie (2001), Dan Neumark (2002), Peter Griffiths (2003), Dave Haaland (2004), Paul Bohn (2005), Robert W. Field (2006), David Bocian (2007), Geraldine Richmond (2008), Martin Quack (2009), Richard Van Duyne (2010), Isao Noda (2011), Joel Harris (2012), and Brooks Pate (2013).

Detailed nomination instructions including deadlines are available on the Coblentz web site at www.coblentz.org/awards/the-bomem-michelson-award.

Coblentz Award. The Coblentz Award is normally presented annually to an outstanding young molecular spectroscopist under the age of 40. The new age requirement for the Coblentz award is that a candidate must be under the age of 40 on January 1 of the year of the award.

Previous recipients of this award are: John Overend (1964), William Fateley/Robert Snyder (1965), Edwin Becker (1966), Peter Krueger (1967), Jon Hougen (1968), James Durig (1969), Guiseppi Zerbi (1970), Clive Perry (1971), George Leroi (1972), C. Bradley Moore (1973), C.K.N. Patel (1974), Bernard J. Bulkin (1975), Geoffrey Ozin/George Thomas, Jr. (1976), Peter Griffiths (1977), Lester Andrews (1978), Lionel Carreira (1979), Richard Van Duyne (1980), Laurence Nafie (1981), Christopher Patterson (1982), Dave Cameron (1983), Steve Leone (1984), John Rabolt/Graham Fleming (1985), Joel Harris (1986), Alan Campion (1987), Keith Nelson (1988), Geri Richmond (1989), Hai-Lung Dai (1990), Paul Bohn (1991), Tom Rizzo (1992), Peter Felker (1993), Paul Alivisatos (1994), David J. Rakestraw (1995), Xiaoliang Sunney Xie (1996), Mounqi Bawendi (1997), Pat Treado (1998), Brooks Pate (1999), Martin Gruebele (2000), Stacey Bent (2001), Andrei Tokmakoff (2002), Andrea Callegari (2003), Sergey Nizkorodov (2005), Michael Strano (2006), Martin Zanni (2007), Xiaowei Zhuang (2008), Benjamin McCall (2009), and Timothy Schmidt (2010). No award was presented in

2011. Greg Engel (2012) and Nathalie Picqué (2013) are the most recent awardees.

Detailed nomination instructions including deadlines are available on the Coblentz web site at www.coblentz.org/awards/the-coblentz-award.

Coblentz Student Award. The Coblentz Society has for many years encouraged young scientists to pursue studies in spectroscopy by seeking nominations of outstanding students for the Coblentz Student Awards. The awardees receive a copy of the Society's Deskbook, a certificate, and a year's membership in the Society. Their names and the names of their faculty advisors will appear in the Society's Newsletter published in Applied Spectroscopy.

The awardees for 2010 were: Ram Bhatta, Department of Chemistry, University of Akron, Professor David S. Perry; Praveenkumar Boopalachandran, Department of Chemistry, Texas A&M University, Prof. Jaan Laane; Bryon Herbert, Department of Chemistry and Biochemistry, University of Delaware, Professor Karl S. Booksh; Yuliya Luzinova, Department of Chemistry and Biochemistry, Georgia Institute of Technology, Professor Boris Mizaikoff; and Hajime Okajima, Department of Chemistry, the University of Tokyo, Professor Hiro-o Hamaguchi.

The awardees for 2011 were: Rohith Reddy, University of Illinois at Urbana-Champaign, Professor Rohit Bhargava; Nathaniel R. Gomer, Univ. of South Carolina, Professor S. Michael Angel; Esther J. Ocola, Texas A&M University, Professor Jaan Laane; Savitha S. Panikar, University of Missouri-Kansas City, Professor James Durig; Megan R. Pearl, University of South Carolina, Professor Michael Myrick.

The 2012 class of awardees are: Eduardo Berrios-University of Illinois at Urbana-Champaign, Prof. Martin Gruebele, Marleen Kerssens-Biophotonics Research Unit at Gloucestershire Hospitals, Prof. Nick Stone and Prof. Pavel Matousek, Rajesh Marampudi-Cleveland State University, Jonathan Schaefer-University of Utah, Joel Harris, Andreas Wilk-University of Ulm, Prof. Boris Mizaikoff and Xiaohua (Sarah) Zhou-University of Missouri Kansas City, Prof. James Durig. Xiaohua was also awarded the 2012 Fateley Award.

The 2013 Coblentz Student award winners are Rachel Masyuko-University of Notre Dame, Tao Liang-University of Georgia, Tomasz Wrobel-Jagiellonian University, and Sarah E. Holton-University of Illinois at Urbana-Champaign. Tomasz was also awarded the 2013 Fateley student award.

Detailed nomination instructions including deadlines are available on the Coblentz web site at www.coblentz.org/awards/coblentz-student-awards.

Craver Award. The Craver Award is presented annually to recognize young spectroscopists for efforts in applied analytical vibrational spectroscopy. Nominations for the Craver Award are being accepted through August 30, 2014. Candidates must be under the age of 45 on January 1 of the year of the award. The candidate's work may include any aspect of infrared (NIR, MIR, or Far), and/or THz, and/or Raman spectroscopy in applied analytical vibrational spectroscopy. The nominees may come from an academic, government lab, or industrial backgrounds. Nominations for the 2015 Craver Award must include a detailed description of the nominee's accomplishments, a curriculum vitae or resume, and minimum of three supporting letters. Nominations close on August 30, 2014. Files of candidates will be kept active for three years or until the age of eligibility is exceeded. Annual updates of candidate files are encouraged and will be solicited from the nomination source by the award's committee chair.

Previous recipients of the award are: Katherine A. Bakeev (2007), John Conboy (2008), Takeshi Hasegawa (2009), Boris Mizaikoff (2010), Michael W. George (2011), Duncan Graham (2012), and Rohit Bhargava (2013). The award carries a \$1000 honorarium, a plaque, plus a \$500 travel allowance. Files of candidates will be kept active until the age of eligibility is exceeded. Annual updates of candidate files are encouraged and will be solicited from the nomination source by the award's committee chair.

The awardee will also be offered a 25-minute plenary lecture during the SciX meeting, at which the award will be presented. Further, a separate half-day award symposium honoring the award recipient and highlighting the interests of the awardee will also occur at the same conference. Detailed nomination instructions including deadlines are available on the Coblenz web site at www.coblenz.org/awards/the-craver-award.

William G. Fateley Student Award. In 2010, a new student award in the name of William G. Fateley was created by the family and former group members of Bill Fateley, in conjunction with the Coblenz Society and the Society for Applied Spectroscopy. Their names and the names of their faculty advisors will appear in the Society's Newsletter published in Applied Spectroscopy. Winners of the William G. Fateley Student Award also receive a \$1000 prize and are asked to speak in the Student Awards Session at FACSS or another appropriate location.

Previous awardees are: Ali Eftekhari-Bafrooei (2010), Rohith Reddy (2011), and Xiaohua (Sarah) Zhou (2012). The 2013 awardee was Tomasz Wrobel.

Detailed nomination instructions including deadlines are available on the Coblenz web site at www.coblenz.org/awards/william-g-fateley-student-award. Note that the Fateley student awardee is selected from the top three candidates who receive the Coblenz student awards, requiring that the students be nominated for the Coblenz student award prior to consideration for the Fateley student award.

Ellis R. Lippincott Award. The Ellis R. Lippincott Award is presented annually to an outstanding vibrational spectroscopist. It is co-sponsored by the Coblenz Society, the Society for Applied Spectroscopy, and the Optical Society of America. The award is presented in memory of Professor Ellis R. Lippincott to scientists who have made significant contributions to vibrational spectroscopy as judged by their influence on other scientists. It is awarded annually at an appropriate scientific meeting. The award consists of the medal and travel allowances to the meeting. The awardee will present an address related to contributions for which he/she is being honored. In addition, there may be a symposium of talks by invited speakers.

Recipients of the medal must have made significant contributions to vibrational spectroscopy as judged by their influence on other scientists. Because innovation was a hallmark of the work of Ellis R. Lippincott, this quality in the contributions of the candidates will be carefully appraised. The contributions may be theoretical, experimental, or both, and may have been made in the course of applied as well as basic research. No restriction is placed on the citizenship or national origin of candidates. A candidate need not be a member of any of the sponsoring societies. The award will not be made posthumously unless an awardee should die after the procedure of selection has been completed.

Nominations should contain the name and affiliation of the nominee and sufficient background information to justify the nomination. A nominator is expected to believe sufficiently strongly in the quality of the work of his or her candidate to provide evidence of that belief. No restriction is placed on who may nominate, and all nominations received by the committee prior to October 1st, in any year will be considered for the award to be presented in the fall of the following year. Files of nominees will be kept active for three years, after which the nominee must be re-nominated with an updated file or the file will be closed. Nominations for the Ellis R. Lippincott Award are accepted from January 1 through October 1, 2014.

Previous recipients include: Richard G. Lord (1976), Lionel Belamy (1977), Bryce Crawford, Jr. (1978), E. Bright Wilson (1979), George C. Pimentel (1980), Ian Mills (1981), Michel Delhay (1982), John Overend (1983), Jon T. Hougen (1984), Ira W. Levin (1985), Wolfgang Kaiser (1986), C. Bradley Moore (1987), Andreas C. Albrecht (1988), Marilyn E. Jacox (1989), Robert W. Fields (1990), Richard J. Saykally (1992), John F. Rabolt (1993), Herbert L. Strauss (1994), Giacinto Scoles (1995), Giuseppe Zerbi (1996), Robin Hochstrasser (1997), Takeshi Oka (1998), Mitsuo Tasumi (1999), Donald Levy (2000), Lester Andrews (2001), Sandford Asher (2002), Shaul Mukamel (2003), Richard Mathies (2004), Jaan Laane (2005), Hai-

Lung Dai (2006), Jonathan Tennyson (2007), Richard Van Deyne (2008), Michael Fayer (2009), Martin Moskovits (2010), Isao Noda (2011) and Keith Nelson (2012). The 2013 awardee is Prof. Xiaoliang (Sunney) Xie.

Detailed nomination instructions including deadlines are available on the Coblenz web site at www.coblenz.org/awards/the-lippincott-award.

Williams–Wright Award. This award is presented annually at the Pittsburgh Conference to an industrial spectroscopist who has made significant contribution to vibrational spectroscopy while working in industry. The Williams–Wright Award Symposium is held in honor of the awardee and immediately follows the presentation. The work may include infrared and/or Raman spectroscopy and instrumental development, as well as theory and applications of vibrational spectroscopy. Government labs are not considered industry in this definition. No restrictions are placed on the selection of the awardee because of age, sex, or nationality, but the awardee must still be working at the time the award is presented. The award consists of a framed certificate and an honorarium. In order to ensure that the award is based on an independent evaluation of the candidate's achievements, the selection is made by a committee chosen by the Coblenz Society.

Previous recipients of the Williams–Wright Award are: Norman Wright (1978), Norman Colthup (1979), Jeannette Grasselli (1980), Paul Wilks/James Harrick (1981), Robert Hannah (1982), Harry Willis (1983), Robert Jakobsen (1984), Clara D. Craver/Richard A. Nyquist (1985), Abe Savitzky/Joseph J. Barret (1986), A. Lee Smith (1987), Darwin L. Wood (1988), D. Bruce Chase (1989), John F. Rabolt (1990), Robert J. Obremski (1991), Timothy Harris (1992), Curtis Marcott (1993), John M. Chalmers (1994), Michael R. Philpott (1995), Bob Messerschmidt (1996), Michael J. Pelletier (1997), Henry Buijs (1998), Don Kuehl (1999), John Reffner (2000), Raul Curbelo (2001), Isao Noda (2002), Neil Everall (2003), Neil Lewis (2004), Fran Adar (2005), Harry Owen (2006), Michael Carrabba (2007), Rina Dukor (2008), Jerome J. Workman (2009), Patrick Treado (2010), Howard Mark (2011), Richard Crocombe (2012), John Coates (2013). The 2014 awardee is Mike Doyle.

Detailed nomination instructions including deadlines are available on the Coblenz web site at www.coblenz.org/awards/the-williams-wright-award.

WILLIAM G. FATELEY STUDENT AWARD: A SPECIAL CALL FOR CONTRIBUTIONS

The family and former group members of William G. Fateley, in conjunction with the Coblenz Society and the Society for Applied Spectroscopy, created an endowment supporting a student award in his honor in 2010.

A lasting component of Bill's legacy was his encouragement for students to attend professional conferences and meet their peers. He made it a goal to introduce young scientists to the "people" in the field and to get them personally involved. Fostering this interaction was important to Bill; perhaps as much as it was for the science. His efforts included sending his students to many international conferences. If need be, he even went as far as to bring the social interaction center (disguised as a mobile spectroscopy lab) directly to the conference. Bill's commitment to encouraging students to attend conferences, meet and interact with their colleagues and contribute to the field of spectroscopy, has produced a whole new generation of spectroscopists. These actions have enriched the groups and societies that Bill championed so strongly and this is the legacy that we hope to continue with the establishment of this award.

The inaugural award was presented during the two special sessions at FACSS 2010 honoring Bill Fateley. These sessions consisted of a mixture of presentations from Bill's colleagues and former group members. The William G. Fateley Student Award is being administered by the Coblenz Society. The Society is currently accepting contributions to the initial endowment of the Fateley award. Please consider contributing to the formation of this award, and continuing the positive impact Bill Fateley had on the spectroscopic community.

Due to his worldwide impact on the field of spectroscopy, tax deductible donations to the award fund are encouraged from all of "Wild" Bill's friends, colleagues and professional societies. Funds may be sent to:

"The Coblenz Society / The William G. Fateley Award"
acct: 469576552
JPMorgan Chase Bank
243 E Main Street
Ashland, OR 97520

For those who prefer to send a check, please mark it as a contribution to the William G. Fateley Award and send it to the treasurer of the Coblenz Society.

SOCIETY ANNOUNCEMENTS

Membership. Anyone wishing to join the Society may do so by submitting an application at the Coblenz web site (www.coblenz.org/Membership) or by contacting Dr. Mark Druy, Coblenz Society Membership Chairman, Physical Sciences, Inc., 20 New England Business Center, Andover, MA 01810. Phone: (978) 738-8195, Fax: (978) 689-3232, e-mail: druy@psicorp.com. Dues can also be paid online at the Coblenz web site (<http://www.coblenz.org/payments>). We also welcome suggestions for honorary memberships in the Society.

Board Meeting. The Coblenz Society Board of Managers will hold its semi-annual meeting at the 2014 Pittcon conference. Please consult the Coblenz LinkedIn site for further information. Any article of business that you want the Board members to consider must be sent in writing to Jim Ryzdak, Coblenz Society President (see address at end of newsletter), prior to the conference.

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