though NAS is willing to continue to adhere to the IUCr provided that the crystallographic community cover their administrative services costs and the annual IUCr dues, items that were previously covered by the NSF. Efforts to find alternative funding sources are ongoing. At present, there are no plans to change the US adhering body to the IUCr; but if needed in the future, the ACA's USND potentially could serve as the US's adhering body to the IUCr in the possible event that the NAS should cease to do so. This is a secondary motivation for the formation of a USND.

Past ACA leaders foresaw the possible need for such a national division and provided a natural framework for creating one within the ACA Bylaws and Rules. In similar fashion, the Canadian National Division was formed many years ago and continues to be active in the affairs of the ACA. The USND Bylaws state that all members of the ACA whose primary residence and work affiliations are in the US are automatically members of the USND. There are no extra USND dues or distinguishing ACA services associated with USND membership. The USND has two officers, a President and a Secretary/Treasurer, who serve three-year terms that are offset from one another by one year. Like the Canadian National Division representative, the USND President will sit on ACA Council and will also serve as an ex-officio voting member of the USNC/Cr. Balloting for USND officer elections and bylaw changes will be administered by the ACA as part of the ACA's normal annual election cycle starting in 2021.

The ACA Council appointed Amy Sarjeant (ACA President, 2017) from Bristol-Myers Squibb as interim USND President and Charlie Carter (ACA President, 2002) from the University of North Carolina Chapel Hill as the interim USND Secretary to launch the USND and find candidates willing to serve in those roles. Tamir Gonen from the UCLA School of Medicine and Eric Reinheimer from Rigaku agreed to be nominated for President and Secretary, respectively and Council appointed Tamir for a one-year term from 01 Jan 2021 to 31 Dec 2021 and Eric for a two-year term from 01 Jan 2021 to 31 Dec 2022. Regular elections for the positions of USND President and Secretary will be conducted in the fall of 2021 and 2022, respectively. The US crystallographic/structural-science community is very fortunate to begin this journey with such capable and experienced leaders!

Respectfully,

Cora Lind-Kovacs (USNC/Cr Chair)
Branton Campbell (USNC/Cr Vice Chair)
Joe Ferrara (USNC/Cr Secretary/Treasurer)

Marilyn Morgan Olmstead
1943-2020

Marilyn Olmstead

It is with deep sadness that we observe the passing of Marilyn Morgan Olmstead, Professor Emerita of Chemistry, on September 30, 2020. She was killed, at the age of 76, in a tragic accident while riding her bike in Davis, CA. Marilyn was one of the world's foremost and most prolific fullerene crystallographers. At the time of her passing, Marilyn had an H-Index of 84, had published over 1,100 papers in prestigious scientific journals, and had been cited more than 34,000 times. Marilyn was the recipient of numerous awards for her scientific work, and she was a Fellow of the American Chemical Society and the American Crystallographic Association.

After graduating from Burbank High School in 1961 with straight As, Marilyn attended Reed College, where she majored in chemistry. Marilyn loved Reed, and she thrived under the mentorship of Professor Thomas Dunn, who became a great friend. During a special summer program, she met emerging leaders in the field of inorganic

chemistry including Professors Harry Gray and Sheldon Shore. In 1965, Marilyn was awarded a highly competitive Woodrow Wilson Fellowship to support her graduate studies.

Marilyn continued to pursue her interest in inorganic chemistry at the University of Wisconsin-Madison, where she studied molecular orbital theory. At Madison, she met her husband, Alan Olmstead, whom she married in 1966, and had her first child, Janis in 1968. A shining light for Marilyn at Madison was Professor Larry Dahl, who introduced her to the wonders of X-ray crystallography. She received her Ph.D. from Madison in 1969.

Marilyn was an international leader in the crystallographic study of fullerenes or Buckyballs – a sphere-shaped, crystalline allotrope of carbon discovered in 1985. In conjunction with Professor Alan Balch, who became a lifelong friend, she co-pioneered a technique to co-crystallize fullerenes in a manner that would allow for superior structural data than standard crystallization methods. She utilized this technique to elucidate the structures of numerous new, higher or endohedral fullerenes. Marilyn was the first person in the world to characterize with X-ray crystallography an endohedral metallofullerene and a non-IPR obeying endohedral metallofullerene. This work was central to the Ph.D. dissertations of dozens of students co-advised by Balch and Olmstead. In addition to her expertise in the field of fullerene research, her crystallographic prowess impacted and spurred breakthroughs in research relating to coordination chemistry, organometallic chemistry, organic synthesis, and solid-state inorganic chemistry. She was a visiting scholar at research institutes in numerous countries, including Malaysia, China, Germany, Great Britain, India, and Switzerland.

Despite Marilyn's exceptional productivity and impact, as a female scientist, her path to a professorship in the Department of Chemistry was lined with hurdles. From high school through graduate school she was typically the only female in her science and math classes, and she was often ridiculed and told that girls/women could not do that kind of work. Her first choice for a major professor at Wisconsin turned her down, proclaiming that he did not accept female students. The professor who agreed to be her adviser did his best to kill her career by refusing to read and forward for publication the articles that she generated from her Ph.D. thesis. He told her that he had to prioritize his male students who needed jobs to support their families.

Marilyn accompanied her husband Alan to UC Davis in 1969. He had received a position in the Department of Economics as an Assistant Professor, and she subsequently obtained a job in the Department of Chemistry as a Lecturer. In 1970, she gave birth to her second child, Eric, who died in infancy. In 1972, she had her third child, Nate. This was in an age before family leave benefits existed, and Marilyn was forced to resign from her job before each birth with no guarantee of reappointment. Over the next 34 years, she held the titles of Postdoctoral Fellow, Staff Research Associate, and Specialist. Although she typically worked full time, many of these appointments were 49 percent time with no retirement benefits. She was not deterred. During this period, Marilyn wrote several large grant proposals that were funded to modernize the UCD crystallography lab that she effectively directed. Under her leadership the Davis facility would become one of the most productive crystallographic labs in the world. By 2000, Marilyn was the most published and cited member of the Chemistry Department. She believed that her accomplishments and publication record would speak for themselves, and she would be appointed to the faculty. This was not the case. Finally, in 2003 when Marilyn was 60 years old, after outside pressure was applied on her behalf, she was appointed to the faculty as a Full Professor.

Beyond being a groundbreaking crystallographer, Marilyn was an extraordinary mentor and teacher. She taught crystallography and inorganic

chemistry patiently and with enthusiasm. Beyond the laboratory, she developed close relationships with her mentees, frequently bringing them freshly baked treats or homemade pomegranate jelly and spending time with them over fun activities and shared interests. She took many foreign students under her wing and provided them a home-away-from-home with her warmth and hospitality. One of her students expressed what many felt, "Marilyn was more than an engaged and brilliant crystallography mentor; she was the closest thing I had to family on this continent. She welcomed me into her home, helped me adjust to life in Davis and find my scientific niche, and cheered me on at every milestone." She constantly advocated for students – pushing for support and funding, requesting better technology and state-of-the-art research infrastructure, and imparting the skills and guidance they needed to succeed. In addition, Marilyn was an advocate for the junior faculty and staff and advised the undergraduate Chemistry Club for many years.

Marilyn retired in 2015 but continued active research and mentorship. She regularly accompanied students to the synchrotron at Lawrence Berkeley National Laboratory to collect datasets over day-long shifts. During the COVID-19 shutdown, she was remotely advising a half dozen graduate students and was branching into an entirely new field of chemistry.

Marilyn had many passions outside her professional activities. For forty years she played tennis almost daily and won several local tournaments. She loved hiking, fishing, skiing, ice skating, snowshoeing, canoeing, and bike riding. In later years Marilyn was active in exercise and yoga groups. She was an avid reader, and she relished her friends in her book group, and took special delight from her friend Lin Lindert, whom she knew for over 50 years. She went on annual expeditions with her cherished friend of 63 years, Barbara Chapman. On their last trip, they toured Iceland for two weeks. She and her sister Marcia grew very close later in life. This brought great happiness to Marilyn. She loved sharing time with friends and family at her cabin at Alpine Meadows. Throughout her life, Marilyn devoted herself to many community and university activities. She worked in voter registration drives in Watts in the 1960s, she was a past member of the ACLU, she coached youth tennis and was the consummate soccer and baseball mom. She traveled with Alan to many of Nate's baseball games when he played at Stanford and in the minor leagues. Marilyn and Alan were AFS parents, hosting "sons" from Italy and Turkey. They also "adopted" beloved students and researchers whom they met over the years, helping them apply to schools and jobs and often contributing to their expenses.

From a young age, Marilyn was fascinated with symmetry, chirality, and repetitive motifs. She would peer at snowflakes, pinecones, insects, flowers, and mosaics to search for hidden symmetries and ponder their purposes in Nature. She devoted her life to the deciphering of Nature's rules for the assembly of molecules and atoms. Marilyn said that "X-ray crystallography is like listening to an orchestra play." She was one of the few people who could hear the beauty of the individual notes and comprehend the miracle of their complex integration. She will be remembered for her delight in the promise of an unanswered question, and the kindness, fun, sunshine and insight with which she approached her colleagues and friends. Her death is an irreparable loss to the scientific community and her friends, and a tragedy to her family.

Marilyn is survived by Alan, her husband of 53 years; her daughter Janis and her children Dylan and Emma; her son Nate and his wife Erin and their children Avery and Evan; and her sister Marcia Trombold. Marilyn was preceded in death by her son, Eric. In lieu of flowers, the family invites well-wishers to help carry on Marilyn's work by contributing to The Marilyn M. Olmstead Graduate Research Fund for Excellence in Inorganic Chemistry.

UC Davis Obituary