



PMSE



PolyEd Report for the San Diego ACS Meeting, March, 2016

Submitted by

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The agenda for the **PolyEd meeting on Tuesday, March 15**, may be found on the PolyEd web site at “<http://www.polyed.org>”. The meeting begins at 7:30 am in the “**Oceanside Room at the Marriott Marquis San Diego Marina**”. Please visit our web site for additional details about all PolyEd programs.

The annual **Undergraduate Research in Polymer Science Symposium** will take place at the San Diego meeting in the POLY Division on Tuesday, March 15th. The oral session is in Del Mar, Marriott Marquis San Diego Marina, 8:00 a.m. to noon and 1:00 p.m. to 4:00 p.m. The poster session for this undergraduate symposium will be held at the convention center 6:00 – 8:00 p.m., Hall F, as part of the POLY poster session. Eighteen oral and 25 poster presentations from students from universities across the country are planned. A career session for undergraduate and graduate students, sponsored by the Industrial Advisory Board, will be held at 4:00 p.m. in the Del Mar, Marriott Marquis San Diego Marina.

A symposium, **Integrating Chemistry and Polymer Science Research Into The Classroom**, also organized by Sarah Morgan, was held **at the Denver ACS meeting**. The symposium was sponsored jointly by POLY and ChemEd.

PolyEd continues to recognize **outstanding research posters by undergraduate students at each of the national ACS meetings**. Anyone willing to assist with evaluation of the posters should contact Erik Berda, Bob Howell, or Sarah Morgan.

Warren Ford and Claire Tessier organized a symposium at the Boston ACS Meeting entitled “**Polymer Concepts in Inorganic Chemistry Courses**”. The symposium was cosponsored with CHED and was held on Wednesday afternoon. The symposium consisted of three tutorial lectures on inorganic backbone polymers, silicone polymers, and polymerization catalysts and 6 contributed papers.

Rick Laine reports that sets of questions from each of several polymer areas have now been sent to the director of the ACS Examinations Institute, Kirsten Murphy. These questions will be used for the generation of two new **ACS Exams in Polymer Chemistry**, one for undergraduates and the other for graduate. The undergraduate exam may be used as the final exam for a first course in polymer chemistry/science. This is long overdue as the last ACS Exam in Polymer Chemistry was published in 1990. The graduate exam may be used for overall assessment of knowledge after completion of graduate coursework.

The **2015 Henkel Award for Outstanding Graduate Research in Polymer Chemistry** was presented to **Dr. Jessica Kramer** at the Boston ACS National Meeting. The award was presented during a symposium in honor of Dr. Kramer on Tuesday morning August 18, 2015 in the Division of Polymer Chemistry. Dr. Kramer completed the Ph.D. in Chemistry in 2013 at UCLA with Prof. Tim Deming. Her Ph.D. research focused on the preparation of functional glycosylated polypeptides with controlled placement of sugar groups via living polymerization of highly pure glycosylated alpha-aminoacid-N-carboxyanhydride monomers. The methodologies she pioneered will enable the preparation, and scale-up, of whole new families of functional polypeptide materials, as well as site-specifically modified peptides and proteins. Dr. Kramer is now a University of California-Berkeley Chancellor’s Post-Doctoral Fellow with Prof. Carolyn Bertozzi. Mary Ann Meador serves as the Chair of the award selection committee. The deadline for nominations for the 2016 award was January 31, 2016.

The recipient of the **2015 Award for High School Teaching is Sally Mitchell**. Additional details about Sally and the award will be forthcoming.

Dan Savin reported that the Polymer University Network of Knowledge (“PUNK”) group met at the Boston ACS meeting to discuss initiatives, especially further development of its website, which will serve as a resource for college and university faculty interested in including polymer topics in their courses.

At the PolyEd meeting in Boston, PolyEd continued to discuss how to assist college and university chemistry departments in light of the recently revised CPT guidelines regarding undergraduate education. In early 2015, the **ACS Committee on Professional Training (CPT)** released revised ACS Guidelines for ACS-approved undergraduate chemistry departments that state “...the principles that govern **macromolecular, supramolecular, mesoscale, and nanoscale systems must now be part of the curriculum for certified graduates. Furthermore, instruction must cover the preparation, characterization, and physical properties of at least two of the following: synthetic polymers, biological macromolecules, supramolecular aggregates, meso- and/or nanoscale materials.**” They have suggested that departments will meet the requirement by incorporation into existing courses amounting, *in toto*, to the equivalent of a quarter of standard semester course or by offering a stand-alone course. PolyEd has begun an initiative to encourage CPT to require a one semester course in its next revision of the guidelines. It was reported at the PolyEd meeting that CPT is planning a symposium at the Biennial Conference on Chemical Education in August, 2016, on how colleges and universities can include macromolecular, supramolecular, and nanoscale topics in their courses. We thank all who have contacted CPT and we urge you to continue to do so as CPT puts this new requirement into effect.

The print version of an **ACS Symposium Series book (volume 1151)** entitled “**Introduction of Macromolecular Science/Polymeric Materials into the Foundational Course in Organic Chemistry**” **was published in 2014**. This book resulted from an all-day symposium on the integration of polymer topics in sophomore organic chemistry courses that was held at the Philadelphia ACS meeting in 2012. This was a collaboration with CELL, CHED, PMSE, POLY, ORGN, Rubber, and SOCED. The book also was published in electronic form in November, 2013. Information about PolyEd programs is featured in Chapter One of the book, especially PolyEd programs that are directed towards assisting faculty interested in incorporating polymer topics in college and university chemistry courses. PolyEd thanks Bob Howell for his excellent job organizing the symposium and editing this symposium series book. We also thank those who contributed chapters for the book. Similar to the above symposium on integrating polymer topics in organic chemistry courses, the **Physical Chemistry of Macromolecules symposium**, organized by Paul Russo, Daniel Savin, and Frank Blum, was offered at the Indianapolis ACS meeting. As mentioned above, Warren Ford and Claire Tessier organized a symposium with ChemEd on Wednesday at the Boston meeting entitled **Polymer Concepts in Inorganic Chemistry Courses**.

The PolyEd **Undergraduate Award for Achievement in Organic Chemistry** continues to recognize undergraduate students for their outstanding performance in sophomore Organic Chemistry courses. In 2015, more than 100 students at colleges and universities were recognized with the PolyEd award. Personalized certificates are sent to all awardees and congratulatory letters are sent to both the recipient and the faculty nominator. The award is administered by the PolyEd Center at the University of Wisconsin-Stevens Point.

PolyEd is successful because of the contributions of many. **We thank all who lead PolyEd’s programs and especially POLY and PMSE for their support.** Any member of POLY and PMSE who would like to become involved in PolyEd should contact John Droske at the POLYED Center, University of Wisconsin-Stevens Point, jdroske@uwsp.edu or Charles Carraher, Jr., Florida-Atlantic University, carraher@fau.edu.