



Official Newsletter
of Keramos:
The National Professional
Ceramic Engineering Fraternity

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THROUGH FIRE TO PERFECTION: The purpose of this Fraternity shall be to provide recognition, distinction and honor to those persons in ceramics whose scholarship and character qualify them for such recognition.

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President's Message

Greetings Keramos members. The Board of Directors is experimenting with electronic delivery of this issue of the Keragram. Our hope is that sending the Keragram via email will allow us to reach a larger group of members. But don't worry, we plan to continue mailing paper copies of future issues of the Keragram. We know that we're missing many of you on our address list, so the Board is working this year to make significant upgrades to our membership database. You'll be seeing requests from us to update your email and postal address in the near future.

The 2015 Keramos Convocation and Annual Business Meeting, held in October with the MS&T'15 Conference in Columbus Ohio, was quite successful. Representatives from seven chapters were in attendance, and each provided an excellent presentation on their professional development activities over the previous year. Keramos held a special reception during the conference to celebrate the 100th anniversary of the Keramos Alpha Chapter at the University of Illinois, and the induction of our 10,000th member at the University of Connecticut. We reflected on the successes of the fraternity and its members over the years, and you'll see more detail later in this issue.



We had the largest audience that I can recall for the Keramos mug drop and putter contests, and the competition didn't disappoint. There were 15 mugs and 12 discs entered into the contest. Unique design ideas, sacrificial parts, and skilled decoration were all included. Michael Hu of the University of Illinois entered the winning mug. The disc golf competition resulted in a tie, with two successful throws from a distance of six meters, by Andrew Schlup (Missouri S&T) and Jonathan Rasimas (University of Connecticut).

I have asked the recent past presidents of the Keramos Board to form a special committee on membership. Our intent is to strengthen current chapters, and act on opportunities to build new chapters at universities where there is strong interest in ceramic engineering. I look forward to reporting on the committee's actions in future issues.

The position of Herald on the Keramos Board of Directors is open. If you're interested in getting more involved with the fraternity, please send me an email at the address below.

As always, your annual dues and additional donations are greatly appreciated. Almost all fraternity funds are dedicated to supporting student travel to our annual convocation and participate as young professionals in the MS&T conference. We'll continue to use the Keragram to keep you informed of their accomplishments.

Thank you for your continued support of Keramos.

Dr. Kevin M. Fox, President; kevin.fox@srmf.doe.gov

Vice President's Message

Greetings Keramos members. As Dr. Fox mentioned in his message, Keramos held a special reception during the MS&T '15 to celebrate the 100th anniversary of the Keramos Alpha Chapter at the University of Illinois, and the induction of our 10,000th member at the University of Connecticut. The reception attendees included many familiar names who have shaped the ceramic and materials engineering community over the past 50 years. Dr. Kathleen Richardson, incoming ACerS president, started the festivities off with a great message followed by recognition of Keramos members initiated from each decade who were in attendance from as far back as the 1950's. The reception also provided networking opportunities for our student chapters to share what they are accomplishing at their respective universities and the surrounding communities. Of course, we recognized our alpha chapter, the University of Illinois, along with our 10,000th member from the University of Connecticut.

Because of the success and positive feedback from this reception, the board is considering continuing this reception at the MS&T conference more frequently.

Dr. Brian L. Gilmore,
Vice President
Brian.Gilmore@pxd.com



Comments from some of the students in attendance:

At the Keramos Reception, I had the opportunity to meet many alumni from various schools. One of which was an alumni from Alfred University, William Carty. He heard that at the University of Illinois, we had lost all of our glaze recipes that Keramos groups were able to make years ago. He was able to give me a flash drive with very helpful information about glaze recipes so the current chapter can start making ceramic projects from start to finish by making our own moulds, slip, and glazes. The Keramos convocation allowed the chapters that attended to interact with alumni. Continuing this event would allow knowledge, such as the glaze recipes that the University of Illinois had lost, to pass more easily to the students.

Kim Campbell, University of Illinois

This was the first time Keramos has had reception and it was definitely a great experience for us all in attendance from Alfred University. Being able to connect with students from other schools and members from industry is very important and convocation was the best place to do it.

Curtis Matthew, Alfred University

I enjoyed the Keramos reception because it allowed us to talk with other Keramos Students giving a different perspective to do keep the organization thriving.

Jonathan Laparye, Missouri S&T



Vice President Brian Gilmore presents a certificate to Susan Troler-McKinstry of the Pennsylvania State University, who gave the Career Speaker presentation at the 2015 Keramos Convocation.



Students from the Alfred University Chapter review accomplishments before the delegates at the 2015 Convocation.



Professor Raj Bordia, Clemson University, receives the 2015 Greaves-Walker Role of Honor from Kevin Fox, President.



ACerS President and Keramos member Dr. Kathleen Richardson gives welcoming comments at the MS&T'15 Keramos Reception.



Mugs, pre-drop.



Ceramic disc golf competition winners. Andrew Schlup, Missouri S&T Chapter, successful throw from 6 meters (left), Jonathan Rasimas, University of Connecticut Chapter, most aesthetically pleasing ceramic disc (right), and Brian Gilmore, Vice President (center).

Keramos Special Committee on Membership

The Keramos National Board of Directors has commissioned a special committee on membership. Committee members are the three most recent presidents of the Board: John Hellmann of the Pennsylvania State University, Bill Hammetter of Sandia National Laboratories (ret.), and Greg Hilmas of the Missouri University of Science and Technology. The committee has been tasked with evaluating the status of current Keramos chapters and identifying opportunities for new chapters at universities with a strong interest in ceramic engineering. Interest in new chapters has been expressed by students and faculty at several universities over the past few years. The committee's first recommendation was to better identify the value that Keramos provides to students, and to learn what more the Keramos Board can be doing to add to that value. Your input to this committee is welcome and requested. Please send your thoughts and suggestions to Kevin Fox, Keramos President, at kevin.fox@srnl.doe.gov.

Stay Connected with Keramos

Keramos is working to improve its online presence for better communication with students and alumni members. Check out the Keramos web page, hosted by the American Ceramic Society:



<http://ceramics.org/classes/keramos>

We have updated the page with annual reports from each of our chapters, so that you can keep up with their impressive efforts in professional development and outreach.

Keramos has established a group on LinkedIn to better communicate with our alumni members. It's available here:



<https://www.linkedin.com/groups/3573516>

We're using this group to hold a [discussion about the value of Keramos](#) to our members, and we would very much like to have your input.

Keramos Needs Your Help

The Keramos treasury is running dangerously low. The Board of Directors uses fraternity funds to send students to the annual Keramos Convocation at the Materials Science and Technology Conference each October. We need your help in maintaining our ability to help students become new leaders in the ceramic engineering profession. We've established a PayPal account via the Keramos web page to make it easy to pay your \$10 annual membership dues, and additional donations are greatly appreciated. You may also continue to pay dues by mail to the General Secretary, using the form at the end of the Keragram. Thank you for your continued support of Keramos!



News from the Pennsylvania State University Chapter

The Keramos chapter at the Pennsylvania State University is busy as ever; inducting 17 qualified new members in the Fall, the chapter has grown to spread the mission of Keramos across academic departments. The Penn State chapter is working to expand ties amongst ceramics students of all levels of education promoting scholarship and character while sharing professional aspects of the trade of ceramics.

Undergraduate students were able to meet with graduate and faculty Keramos members at our student/faculty luncheon where students bonded with professors discussing everything from research and career plans to travel and vacation adventures. Our chapter's honorary inductee this year came from a background of meteorology and glass science playing an instrumental role in one of the chapter's favorite events: glass flower making.

In December, Keramos faculty and graduates shared the craft of glassblowing with undergraduates who took on the task of handling and shaping a variety of patterned flowers from a glass melt. The Keramos lab workers made hundreds of flowers and we sold our creations to students, faculty, and staff of the university as well as visitors who happened by our stand. Customers of all backgrounds were eager to hear how the flowers were made especially because the work was done by undergraduates in a campus facility. Through the sale we were able to raise awareness of the organization and explain the role we play in ceramic professional development.

Penn State members appreciated the opportunity in October to meet and share ideas with chapters at the Keramos Convocation in Columbus, Ohio and we look forward to converging with fellow chapters in Utah this year.



News from the Missouri University of Science and Technology Chapter



Greetings from the Missouri Chapter of Keramos! It has been an exciting year for our chapter. Our focus over the last year has been to maintain the Chapters strengths in professionalism and outreach, as well as to build our networking program.

We have continued our Lunch and Learn program over the last two semesters. At the first L&L, Keramos officers gave examples of presentations for the Student Speaking Competition at the MS&T Conference in October of 2015. Later on, Saint-Gobain gave a presentation on their refractory

products. This semester, we had a Peer Involvement Advisor discuss ways Keramos members could expand their involvement both in Materials organizations and outside the department. Early in April Dr. Kevin Fox of Savannah River National Laboratory and National President of Keramos gave a Lunch and Learn describing his career path and current work at SRNL.

The Missouri Chapter has continued its emphasis on outreach over the past year primarily through demonstrations of ceramic-related technologies to youth in grade school, many of whom eventually become students at Missouri S&T. These demos include testing the strength of a thermally-tempered glass pane, showing the piezoelectric component of many fire-starters, and pouring molten glass. In addition, the Chapter is heavily involved in teaching the Composite Materials merit badge to Boy Scouts who visit the campus each year. Last of all, each year the materials organizations at Missouri S&T organize a canned food drive as a competition between the ceramic and metallurgy students, to the great enjoyment of all. Featured below are the participants and the donations received this year.

In the 2015-16 school year, representatives of the Missouri Chapter attended several conferences including the MS&T Conference, the Conference on Glass Problems, and the TMS Exhibition. These conferences include many technical presentations, competitions, and awards for students. Featured below are the officers of the Missouri Chapter receiving the Diamond and Most Outstanding Chapter Awards at the most recent MS&T Conference. These events enabled networking directly with other Keramos chapters as well as students of many universities that do not presently have Keramos chapters. In particular, the Missouri Chapter continues supporting the efforts of students at Colorado School of Mines to found a Keramos chapter there.

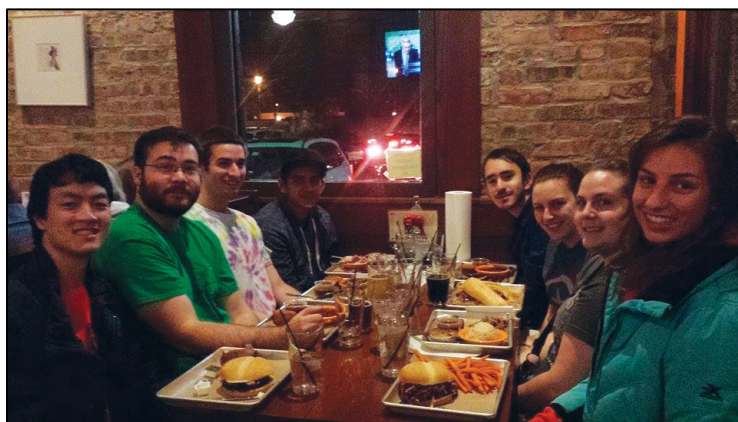
In the past year, 26 new members including 2 metallurgical engineering students and 2 metallurgy faculty were initiated into the Missouri Chapter. We also continue to increase involvement among alumni of the Chapter, through our chapter Keragram. Our goal is to make the Keragram an annual newsletter sent out every fall. Through these efforts, in addition to our involvement with the prospective CSM chapter, the Missouri Chapter of Keramos is maintaining its success locally and broadening its national role in the fraternity.



News from the University of Illinois Chapter

This year has been a busy one for our Keramos Chapter. Much of our time in the fall semester was spent focusing on the newly resurrected freshman mentorship program. We hope that providing interesting and meaningful experiences for incoming students will help maintain the number of initiates that we induct each semester. As usual, the spring semester was dominated by preparing for Engineer Open House (EOH).

We had three exhibits at EOH this year: oobleck, geopolymers, and the mechanical properties of ceramics. Oobleck (a non-Newtonian mixture of corn starch and water) was a crowd favorite. We also provided a tour of our facilities for a group of middle school students from Peoria.





We wish to provide more professional opportunities and events throughout the year. In addition to professor lunches, we would like to host more events with alumni in industry.

We continued to hold weekly Play with Clay sessions in our basement with our brand-new throwing wheel. We have also been exploring new avenues with glass molding.

As always, we hosted a number of social events this year. We kept up the tradition of game night, which had a great turnout. In addition to video games, there was a strong showing in new and exotic board games. We also co-hosted a laser tag outing with OXE, the chemical engineering honors society, which was a lot of fun.

Finally, we have elected a new, more streamlined executive board! We have a lot of ideas for how to improve the chapter in the coming year and have confidence that the smaller board will have the agility to accomplish these goals.

News from the Alfred University Chapter

This has been a productive year for our chapter at AU. Some of our highlights were working the annual Women in Engineering Day during engineering week and volunteering for student outreach. On Women in Engineering Day we held a ceramic demo, showing everything from traditional ceramics to advanced ceramics, liquid nitrogen demo, and some polymer demos which were presented to approximately 100 female high school students interested in attending college for a degree in the STEM field. Also during engineering week, all of the engineering clubs got together for an engineering barbeque and we had a table for some fund-raising as well as talking to students about what Keramos is about.



Matt Curtis, Herald of the AU Chapter, talking about raw materials used for ceramic processing during Women in Engineering Day

We have also taken part in some outreach events by doing slip casting and throwing with students ranging from elementary school to high school. Prior to the demos, we talked to the kids about other applications of ceramics that ceramic engineers focus on and showed them examples.

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Annual Dues

Annual Dues are \$10. Make check payable to “Keramos Fraternity”. If you have not paid your dues this year through ACerS or via PayPal (see link at (<http://ceramics.org/classes/keramos>), please fill in this coupon and mail to the General Secretary. Please indicate the manner in which you would like to receive future Keragrams as we now offer an e-mailed electronic version!

Keramos Dues and Comments:		
Name: _____		
Address: _____		
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Email: _____		
Future Keragrams:	Paper Copy _____	Electronic Only_____
Annual Dues (\$10)_____	Donation: _____	
Message: _____		