

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. I'm excited to begin my term as President (or Grand Master Potter) of Keramos this fall. My time thus far on the Keramos Board of Directors has been a rewarding experience. I'm consistently impressed by the enthusiasm, professionalism, and spirit of service that I see exhibited by each Keramos Chapter.

A quick background on myself: I graduated from Missouri University of Science & Technology with a Bachelor of Science degree in ceramic engineering. I then continued my graduate studies earning a Ph.D. in ceramic engineering with Prof. Wayne Huebner at MO S&T. I'm now at Pioneer Natural Resources in Texas, where I work on a team identifying and developing new technologies for Pioneer's operations enabling new ways to improve efficiency, safety, and environmental stewardship when extracting oil and gas. I enjoy spending time watching my three kids in their sporting activities and checking off that "honey-do" list from my wife.



I'm looking forward to another strong year for Keramos. As you read this Keragram, you may notice that we have all positions filled in the Board of Directors. This has not been the case for at least 5 years. Kevin Fox has graciously stayed on to take the Herald position. We also have two new faces on the Board, Kathleen Shugart and Daniel "Elliot" Sievers. I am confident we will accomplish much with this Board.

As I began this term as President, I worked with the Board to set the vision of Keramos for the next few years. I want to share this vision with you as we will be calling on our membership to help support it. Our vision is three-fold:

1. **Extend the reach of Keramos.** We have inducted a new chapter in November, Colorado School of Mines. We look to induct 1-2 chapters in the next 1-2 years including an international chapter.
2. **Strengthen our relationship with the ceramics/materials community.** We are actively pursuing closer partnerships with the American Ceramic Society, the Ceramic and Glass Industry Foundation, and other materials-related student groups. We are also expanding our social media footprint.
3. **Improve our financial standing.** We will be pursuing a fundraising campaign through our membership and partnering with corporate sponsors.

Please continue to send your dues and donations to help us in our vision! They are much appreciated by our student members who we are able to fund to attend our annual convocation along with the Materials Science and Technology Conference and Exhibition. We'll continue to use the Keragram to keep you informed of all their accomplishments.

Thank you for your continued support of Keramos.

Dr. Brian Gilmore, President; Brian.Gilmore@pxd.com

Vice President's Message



I am happy to serve as Vice President on the Keramos National Board! I started my academic career at The University of Arizona in Tucson, AZ in, August 2008. In 2013, I was promoted with tenure to an Associate Professor and later in 2015 as a Distinguished Scholar of Materials Science and Engineering. Our student Keramos Chapter has been doing great things for our department and college since 2005. When I am not busy having fun with my family I have fun working on my teaching and research programs, which are focused on advancing the fundamental understanding of high-temperature materials for use in extreme environmental applications. Specifically, my research group investigates processing science of high temperature metallic ceramics using direct current sintering, coatings for oxidation protection of carbon-carbon composites, graphene-reinforced ceramic matrix composites, joining of ceramics, and extreme testing of aerospace materials in high enthalpy flows. I also trained as a postdoctoral appointee at Sandia National Laboratories, in the Ceramic Processing and Inorganic Materials Department, in Albuquerque, NM. My Doctor of Philosophy Degree is in Materials Science and my Bachelors of Science Degree is in Metallurgical and Materials Engineering from William Marsh Rice University, and The University of Texas at El Paso, respectively.

I look forward to working with our Keramos Fraternity.

Erica Corral, Vice President, elcorral@email.arizona.edu

Recording Secretary's Message

Hello, I am Kathleen Shugart and I am pleased to be starting as the new Recording Secretary for the Keramos National Board. I attended the University of Mary Washington for my undergraduate degree in physics. I then went to the University of Virginia where I got a masters in Engineering Physics and a PhD in Materials Science. While at UVA, I worked with Elizabeth Opila on Ultra High Temperature Ceramic Oxidation and fell in love with ceramics. While I was in graduate school I was highly involved with the President's Council of Student Advisors for the American Ceramics Society, among other outreach activities. Now, I work as a research scientist for UES, Inc at the Air Force Research Laboratory (WPAFB) in the Materials Characterization Facility.



I am excited to join Keramos and am ready to help the fraternity as it continues to grow and support the ceramics community.

Kathleen Shugart, Recording Secretary, kathleen.shugart.ctr@us.af.mil

Treasurer's Message



Hello, my name is Daniel "Elliott" Sievers and I had the pleasure of joining the Keramos Board as treasurer in 2016. I was inducted into Keramos April 02, 2005 at Clemson University; Number 8825. I graduated from Clemson University with a Bachelor's of Science in Ceramics and Materials Engineer with a minor in Russian Language Studies in 2006. Recently, I graduated, in 2016, from Columbia University in New York with a Masters in Materials Science and Engineering. I have approximately 10 years of experience in the Ceramics and Metals industry and currently work for The Boeing Co. as a Lead ceramist focusing on magnetic materials, thermal protection systems, ultra-high temperature ceramics and ceramic rotating machinery. I am excited and honored to be a part of the board and to continue promoting interest in the professional aspects of ceramic engineering technology and science.

Please feel free to reach out to me and I look forward to meeting my fraternity brothers and sisters at future events.

Elliott Sievers, Treasurer, Daniel.E.Sievers@Boeing.com

Herald's Message

Greetings Keramos members. It has been my pleasure to serve on the Keramos Board of Directors for the past eight years. Working with our student chapters is the best part of the job, and I'm glad to say that ceramic engineering continues to draw strong interest as a profession.

I've offered to continue working with the Board as the fraternity's Herald. This office has been vacant for several years, and I look forward to reinvigorating the position. Near-term, I will be focusing on continuing to modernize our membership database and improving the way we communicate with our members. Our monthly teleconferences have proven to be an effective method of keeping student members and the Board up to date with activities occurring at each of the chapters. Now we will be working to better improve communications with our alumni members. I think you'll be excited to see how the Keramos Chapter at your alma mater continues to grow.



It's become uneconomical for us to continue mailing the Keragram, our semi-annual newsletter. We'll be converting to email distribution with the help of our chapters over the next few months. We'll also be working to improve our presence on Facebook and LinkedIn. We hope that this will allow us to keep you more up to date. And importantly, it will allow us to maximize the amount of fraternity funding that can be used to fund travel for our student members to attend our annual convocation along with the ACerS Annual Meeting and the Materials Science and Technology Conference and Exhibition.

As always, your dues and donations are very much appreciated. Thank you for your continued support of Keramos.

Dr. Kevin M. Fox, Herald; kevin.fox@srml.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 Facebook page and a group on LinkedIn to better communicate with our alumni members. Click on the logos below:



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!



Keramos Convocation 2016 - Salt Lake City, Utah



Students and Chapter Advisors at the 2016 Keramos Convocation in Salt Lake City



Student delegates at the 2016 Keramos Convocation and Business Meeting in Salt Lake City



Robert Schwartz discusses professional development (left) and receives the Greaves-Walker Roll of Honor (right) from Keramos President Brian Gilmore.



Lora Cooper Rothen, CEO of Du-Co Ceramics Company was the 2016 Keramos Career Speaker.



Delegates of the Alfred University and Clemson University chapters (left) receive 2016 Ruby Awards for Achievement by a Chapter while delegates of the University of Arizona and University of Illinois chapters (right) receive Sapphire Awards for High Achievement by a Chapter



Delegates of the Penn State University and Missouri S&T chapters (left) receive Diamond Awards for Exemplary Achievement by a Chapter while Delegates of the Penn State University Chapter (right) receive the 2016 Outstanding Chapter Award



Entries in the 2016 Keramos Ceramic Mug Drop competition



Entries in the 2016 Keramos Ceramic Disc Golf competition



Ceramic Disc Golf competition photos



Alumni Support

Our alumni play a crucial role in sustaining and enabling the fraternity to continue to advance and promote professional development for the students. We are very grateful for your continued support – it is making a significant impact for the future. Thank you to those who sent in their dues and special thanks to the alumni listed below who have contributed beyond their annual dues:

Dick Brow	Delbert E. Day	Edward Duderstadt	Bill Fahrenholtz
William Hammetter	John Hellmann	Greg Hilmas	Wayne Huebner
Len Rahaman	Laura Schell	Robert Schwartz	Jeff Smith
Robert A. Verneti	John Witham		

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!

Jeffrey D. Smith
General Secretary
Keramos National Fraternity
222 McNutt Hall
1400 N. Bishop
Rolla, MO 65409

Keramos Dues and Comments:

Name: _____

Address: _____

City, State & Zip: _____

Email: _____

Future Keragrams: Paper Copy _____ Electronic Only _____

Annual Dues (\$10) _____ Donation: _____

Message: _____