

THE PRESIDENT'S COUNCIL OF STUDENT ADVISORS

STUDENT CONFERENCE GUIDE

47TH INTERNATIONAL CONFERENCE AND
EXPO ON ADVANCED CERAMICS AND
COMPOSITES 2023



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ABOUT THE PCSA

The President's Council of Student Advisors (PCSA) is a committee comprised of both undergraduate and graduate students who aim to help the American Ceramic Society



- Leadership Workshops
- Outreach Opportunities
- Help organize ACerS conferences



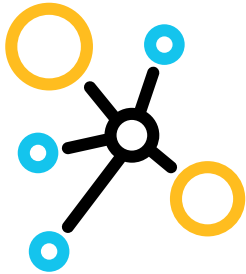
ACerS President's Council of Student Advisors (PCSA)
is now accepting applications for the 2023-2024 Class of Delegates.

APPLICATIONS ARE DUE March 10, 2023!



President's Council of Student Advisors

NETWORK TIPS



Starting a conversation with a stranger can be daunting, but you can follow these steps to have a less awkward interaction.

Introduction

- Remember that the people at a conference are there to network in the first place, so approaching someone new is not that strange.
- Acknowledge the value of that person's time. Introduce yourself, your school, and who you work with.
- Specify a time limit when talking with someone new, this relieves pressure that the other person might feel in a new interaction. Example: Can I talk to you for a few minutes before the next presentation?

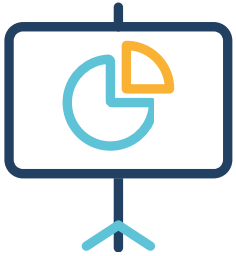
During the Conversation

- Be genuinely interested in what they have to say.
- Ask them questions that are different. Everyone is always asked "What do you research", instead you could ask them about their favorite talk.
- Don't be afraid to also talk about your work and your interests. This gives them opportunities to ask you questions or to find something that you have in common to talk about.

Exiting the Conversation

- Don't ask for their email or number to talk at a later time. Instead try asking if you can connect with them on LinkedIn. This provides a more casual and non-committal ending to the conversation. If they want to give more contact details, then they will do so, but it is ultimately their decision.

CONFERENCE TIPS



Conferences can be overwhelming, especially for students. Here is some general advice for how to make the most out of your conference experience.

Go to the student events. Connecting with other students is the easiest way of expanding your network.

Don't try to go to every talk. Committing yourself to over 8+hours of talks each day will quickly drain you especially if conferences are week-long events. It also makes it more difficult for you to want to network since you will be too exhausted. Aim to sit through only a few hours of presentations spread out through the day. Use the downtime in between to network.

STUDENT EVENTS

ICACC has an excellent set of networking and student-oriented events, more information can be found here:

<https://ceramics.org/student-events-icacc23>

Sunday, January 22nd

4:00 -5:00PM - Journal Publishing Workshop: Writing to be published, found, and read (Sign-up required)

Coquina F meeting room

Monday, January 23rd

12:00 - 1:30PM - Industry Panel for Students and Young Professionals (Sign-up required)

Ballroom 6,7,8 (South Tower)

7:30 - 9:00PM - Student and Young Professionals

Networking Mixer

Oceanview Room



Tuesday, January 24th

6:45 - 8:00PM - Shot Glass Competition

Ocean Center Arena

INTERESTING TALKS

Monday, January 23rd

3:20 - 3:50PM - Novel Processing and Compositions of fiber-reinforced UHTCs

Dr. Lisa Rueschhoff

Coquina Salon A (North Tower)

3:20 - 3:50PM - Multifunctional Scaffolds based on Sr,Mg,Ag-substituted octacalcium phosphate and carboxymethyl chitosan

Dr. Antonia Ressler

Ballroom 1-2 (South Tower)

3:50 - 4:20PM - Conical Nozzle Levitator Equipped with Dual Lasers for High Temperature Testing

Fox Thorpe

Coquina Salon C (North Tower)

4:20 - 4:40PM - Ti₃C₂T_x MXene-Zirconium Diboride Based Spark Plasma Sintered Ultra-High Temperature Ceramic Composites

Kartik Nemani

Coquina Salon A (North Tower)

INTERESTING TALKS

Monday, January 23rd

5:10 - 5:40PM - Microwave-assisted synthesis of lanthanide-based nanoparticles for applications from biomedicine to printing

Dr. Eva Hemmer

Ballroom 3 (South Tower)

Tuesday, January 24th

8:30 - 9:00AM - Lanthanide-based nanoparticles with tuneable emission wavelengths from visible to mid-infrared

Dr. Eva Hemmer

Coquina Salon G (North Tower)

8:30 - 9:00AM - Uncertainty quantification and processing optimization for UHTC manufacturing through an ICME framework

Dr. Scott McCormack

Coquina Salon A (North Tower)

INTERESTING TALKS

Wednesday, January 25th

8:50 - 9:10AM- Exploring CMAS-Steam Synergy on Yb-silicate Degradation

Clark Luckhardt

Flagler C (South Tower)

10:10 - 10:30AM - Method for Weibull analysis of Ball-on 3-Ball strength data with non-uniform specimen sizes

Dr. Kristen Breder

Ballroom 5 (South Tower)

10:20 - 10:40AM - Photonic sintering of ceramics applied to additive manufacturing for a single step process

Dr. Nicolas Somers

Coquina Salon H (North Tower)

2:00 - 2:20PM - Local bonding and carbon vacancy ordering in UHTC high-entropy carbides

Dr. Theresa Davey

Coquina Salon A (North Tower)

2:20 - 2:40PM - Investigation of Lamination Approaches for SiC-filled thermoplastic polymer blends

Olivia Brandt

Coquina Salon F (North Tower)

INTERESTING TALKS

Wednesday, January 25th

3:20 - 3:40PM - Polymer-assisted direct ink writing of carbon fiber reinforced silicon carbide composites

Lily Balderson

Coquina Salon H (North Tower)

4:00 - 4:20PM - Improving the mechanical performance of phosphate-based ceramic matrix composites

Becky Steadman

Ballroom 5 (South Tower)

4:20 - 4:40PM - Absolute Surface Energies of Yttrium Oxide

Kavan Joshi

Coquina Salon B (North Tower)

4:40 - 5:00PM - Grain boundary role on hardness of Gd-doped and undoped nanocrystalline YSZ

Isabella Costa

Coquina Salon B (North Tower)

INTERESTING TALKS

Thursday, January 26th

8:30 - 9:00AM - Advances in Photon-harvesting Technologies for Perovskite Absorbers and Water Splitting Reactions

Dr. Sanjay Mathur

Coquina Salon G (North Tower)

9:20 - 9:40AM - Porous Silicon Nitride Ceramics for RF Radomes Fabricated by Slip Casting

Averyonna Kimery

Coquina Salon H (North Tower)

10:40-11:00AM- Understanding thermal stability in doped zirconia aerogels for high temperature applications

Nathaniel Olson

Coquina Salon H (North Tower)

Graduate and Undergraduate Students are encouraged to **APPLY!**

ACerS President's Council of Student Advisors (PCSA) is now accepting applications for the 2023-2024 Class of Delegates.

APPLICATIONS ARE DUE March 10, 2023!

The 2022-2023 class of delegates consists of 45 students from 28 universities, representing 8 countries.

WHAT IS PCSA?

The President's Council of Student Advisors (PCSA) is the student-led organization of The American Ceramic Society (ACerS) composed of ceramic and glass-focused students from around the world.

"PCSA prepared me for leadership roles not only in ACerS but my career as well"



—Lisa Rueschhoff

Materials Research Engineer, AFRL

2014-2017: Recruitment chair, PCSA council chair

"My involvement in PCSA really sets me apart from my peers"



—Jessica Rimsza

Staff member, Sandia National Laboratory

2013-2016: Programming chair, PCSA council chair

"My role at PCSA expanded my network and got me where I am today"



—Ashley Hilmas

Research Materials Engineer, AFRL

2016-2019 Finance chair, PCSA council chair

WHAT ARE THE GOALS OF PCSA?

- Coordinate student-focused ceramic and glass programming.
- Develop and implement educational activities.
- Facilitate industry-student relations.
- Help actively engage students as leaders in the ceramic and glass materials community.

WHAT DOES IT TAKE TO BE A PCSA DELEGATE?

- A strong interest in ceramics/glass
- Leadership qualities
- Reliability and strong drive



PCSA delegates along with Elizabeth Dickey, 2021-2022 ACerS President (center) at the 2022 PCSA Annual Business Meeting



For more information and to apply, please visit:

ceramics.org/applypcsas

PCSA

Committees & Leadership Opportunities

New and returning delegates gather in the Fall on the weekend prior to MS&T, for the PCSA annual business meeting. All delegates choose a committee to serve on and have the opportunity to take leadership roles within the PCSA.

Delegates establish new goals for the upcoming year, discuss committee plans, and reassess progress made over the previous year. Committees meet virtually throughout the year to accomplish their goals.

PCSA LEADERSHIP ROLES

PCSA Council Chair and Vice Chair

The PCSA Council Chair and Vice Chair oversee the delegation, run the Annual Business Meeting, and serve as liaisons between PCSA and ACerS.

PCSA Committee Chair

Each PCSA committee has a Chair who is responsible for organizing committee meetings, delegating tasks to committee members, and coordinating with the other Chairs.

PCSA Divisional Delegates

PCSA Divisional Delegates attend division meetings for an ACerS division and serve as liaisons for PCSA, engaging delegates with leaders in their field.

Other leadership roles include liaisons to groups outside of PCSA and project based task force groups.



PCSA delegates collaborate at the 2022 PCSA Annual Business Meeting

PCSA COMMITTEES

Communications

- Manages social media accounts and helps advertise PCSA events
- Organizes the Day in the Life series on the PCSA social media and the Deciphering the Discipline column for the *ACerS Bulletin* monthly publication

Professional Development

- Creates networking opportunities
- Hosts webinar series and conference symposiums

Education

- Implements outreach activities, expanding awareness of ceramics and glass fields
- Develops and offers educational tools to K-12 classrooms, such as the ACerS Materials Science Kits

Conference Programming and Competitions

- Organizes the Student Tour at MS&T
- Plans Shot Glass competition at ICCAC, Humanitarian Pitch competition, and various virtual competitions

Recruitment and Retention

- Expands the PCSA network of contacts
- Manages application process for new and returning delegates



facebook.com/ACerSPCSA



linkedin.com/groups/5053371



twitter.com/acerspcsa



instagram.com/acerspcsa



tiktok.com/@acerspcsa

Shot Glass Competition entries at ICACC



WAYS TO GET INVOLVED

Another great way of networking is by getting involved in organizations. Don't be afraid to reach out to them.

Apply to be part of the PCSA.

Join an ACerS chapter.

Join the Global Graduate Research Network (GGRN).

If you have questions, talk to any of the ACerS staff or PCSA members.

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