NSF Center for the Mechanical Control of Chemistry 🌣 December 2024

Alumni Spotlight



Dr. José Cobeña-Reyes is currently a postdoctoral research fellow at Cincinnati Children's Hospital, where his work focuses on bioinformatics and computational immunology. Reflecting on his time with the CMCC, Dr. Reyes shared that this experience significantly enhanced his critical thinking skills, sharpened his hypothesis-driven research approach, and improved his efficiency and organization. He was mentored by Prof. Ashlie Martini, leading а expert mechanochemistry, who the highest set standards for her research group. Dr. Reyes credits Prof. Martini's guidance as instrumental in shaping his development as a researcher.

Congratulations to Our CMCC Graduates!





we December. proudly celebrate achievements of two exceptional scholars from Texas A&M University. Emmanuel Nwoye (left) is earning his Ph.D. in Mechanical Engineering and will be joining the center as a postdoctoral researcher, where he will be managing the Innovation Hub. Riley Davenport (right, pictured with Dr. Lane Baker, Head of the Chemistry Department) is graduating Bachelor of Science in Chemistry. with Congratulations to Emmanuel and Riley on their remarkable accomplishments! We look forward to the impact they will continue to make in their respective fields. Gig 'em!

Seminar Highlight: High-Pressure Techniques & Magnetic Materials



Dr. Altman presented "Gaining Orbital Control in Magnetic Lanthanide Materials Using High-Pressure Techniques" at the ACS/RSC Regional MEA Conference, held in Doha, Qatar, in November.



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Meet Dr. Kosanovich, Our New External Board Member



We're excited to have you join the CMCC team!

Alex Kosanovich is a material scientist at Dow in the Polyurethanes Product R&D group. His work spans across multiple areas of chemistry and formulation science with a focus on applications in flexible foams, granular coatings, adhesives, catalyst design, and asset optimization driving towards greater sustainability. Alex earned his B.A. in Chemistry from Carleton College and his Ph.D. in Organometallic Chemistry from Texas A&M University. Alex has authored 16 peer-reviewed publications, 12 patent filings, and >25 published highlights in ACS OPR&D as part of a broader industry contribution group.

A Message from Dr. Mason: Thank You & Farewell



I want to extend my heartfelt thanks for the opportunity to serve on the Industrial Advisory Board of CMCC. It has truly been a pleasure to meet and reconnect with so many of you during my tenure. After a rewarding career in the chemical industry, I have come full circle in my professional journey and am excited to share that I've accepted a new position as the Assistant Vice Chancellor for the Partnerships Office at NC State University. In this role, I will be leading strategic initiatives to foster interdisciplinary collaborations across the university. Unfortunately, this new chapter requires me to step down from the Board. While I will miss working alongside such talented and dedicated individuals, I look forward to watching CMCC's continued success and the exciting developments that lie ahead. Thank you again for the opportunity to contribute to such a dynamic and impactful organization.



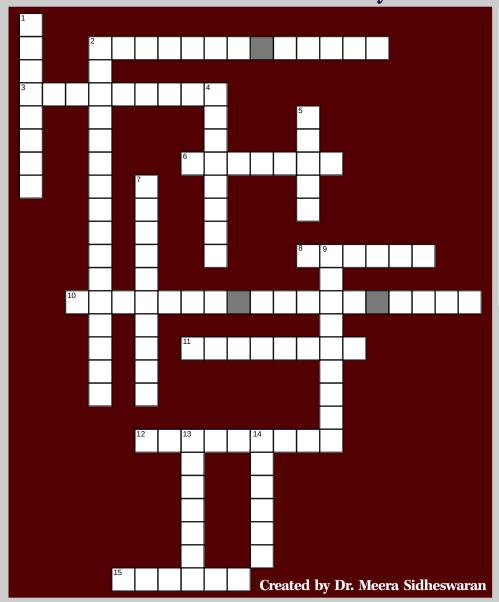
Seminar Highlight: Tribochemistry & Molecular Modeling

Dr. Martini presented "Tribochemistry: Insights into Lubricated Systems from Molecular Modeling" at the Colloquium on Materials Science, hosted online by the Institute for Applied Materials at Karlsruher Institut für Technologie in November.



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Mechanochemistry Crossword Challenge



Across

- 2 These bang around the mill and create the right chaos
- 3 A delicious sweet treat
- **6** Type of equipment used in mechanochemistry
- 8 The force acting on a unit area of material
- **10** A scientific instrument used to study materials under extremely high pressures
- 11 Every action has an equal and opposite
- **12** A measure of a fluid's dynamic resistance to change shape; informal concept of thickness in liquids
- **15** This antique technology is an essential in any lab

Down

- 1 A type of hard material used in milling jars
- 2 The center is dedicated to this field
- 4 An appliance to screw your reaction
- **5** A term common to both physics and chemistry; the point on a stress-strain curve where a material transitions from elastic behavior to plastic behavior or just how much product you made!
- **7** Designed to be disorganized to minimize bias
- 9 Field of surface science that studies friction
- 13 You are an integral member of CMCC
- **14** Ratio of the change in length to the original length of the material

Be the first to solve and win! Submit your answers to sophia.antillon@tamu.edu for a \$10 Starbucks gift card.

You can also send an email for the crossword answers!



Welcome Our Newest Graduate Students at the CMCC!



Lindsay Lerma
Graduate student in the
Batteas group at
Texas A&M University



Yeu-Shiuan (Sharon) Ho Graduate student in the Tabor group at Texas A&M University