



# SOUTHWEST CATALYSIS SOCIETY

## 2021-2022 Election of Officers

### 2020 – 2021 Leadership Team

#### Chair

Lars Grabow  
William A. Brookshire Department of  
Chemical and Biomolecular Engineering  
University of Houston  
Houston, TX 77204-4004  
grabow@uh.edu

#### Chair-Elect

Alejandra R. Rivas Cardona  
Global Process Research  
ExxonMobil Chemical  
Baytown, TX 77520  
alejandra.r.rivas-cardona@exxonmobil.com

#### Past-Chair

Ye Xu  
Department of Chemical Engineering  
Louisiana State University  
Baton Rouge, LA 70803  
yexu@lsu.edu

#### Secretary

Lin Luo  
The Dow Chemical Company  
Freeport, TX 77541  
lluo2@dow.com

#### Treasurer

Travis Conant  
SABIC Technology Center  
Sugar Land, TX 77478  
tconant@sabic.com

#### Directors

Praveen Bollini  
William A. Brookshire Department of  
Chemical and Biomolecular Engineering  
University of Houston  
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Sheima Jatib Khatib  
Department of Chemical Engineering  
Texas Tech University  
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Tracy Lohr  
Shell  
Houston, TX 77082  
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#### NACS Representative

Bert Chandler  
Department of Chemistry  
Penn State University  
State College, PA 16802  
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The SWCS Officers and I welcome all regular members to participate and elect the officers for 2021 – 2022. The officers up for election are as follows:

Position	Term	No. of Candidates
1) Chair-Elect	1 year	1
2) Secretary	1 year	1
3) Treasurer	1 year	1
4) Director (1 position)	2 years	4
5) NACS Representative	2 years	1

Please read the attached short bios of the candidates that describe their affiliations, research and work experience, and how they believe they can contribute to SWCS in their official positions.

All voting-eligible members will receive a one-time voting link in a separate email. After reading the information, please vote in our on-line poll. Eligible members are those who were in good standing with the Southwest Catalysis in 2019 and new members signing up through the PayPal link on our [website](#) before the voting links are sent out on Friday, March 12<sup>th</sup>, 2021.

Best wishes on behalf of the 2020-2021 Leadership Team,

Lars Grabow

William A. Brookshire Department of Chemical and Biomolecular Engineering  
University of Houston  
Chair (2019-2021)



## Candidate for Chair Elect

### **Praveen Bollini**

Assistant Professor  
William A. Brookshire Department of Chemical & Biomolecular Engineering  
University of Houston  
Houston, TX



Praveen Bollini is an Assistant Professor in the William A. Brookshire Department of Chemical & Biomolecular Engineering at The University of Houston, and specializes in the synthesis, characterization, and mechanistic investigation of heterogeneous catalytic systems of interest to the chemical industry. His group's work spans a multitude of length scales ranging from an atomic-level control over active site coordination environment to the development of industrially viable reactor configurations. Current sets of problems include biomimetic active site design, biomass and natural gas conversion over complex mixed metal oxides, and the design and operation of autothermal reactors for partial oxidation reactions.

Praveen obtained his Ph.D. degree from the Georgia Institute of Technology in 2013 under the advisement of Christopher Jones and completed a postdoctoral appointment under Aditya Bhan at the University of Minnesota in 2017. Since the Fall of 2017 he has been an Assistant Professor in the Department of Chemical & Biomolecular Engineering at The University of Houston. Selected awards include The Georgia Institute of Technology Exceptional Academic Achievement Award, The Air Products and Chemicals, Inc. Graduate Fellowship Award, The Industrial and Engineering Chemistry Outstanding Graduate Student Award, The ACS PRF Doctoral New Investigator Award, and a Scialog Early Career Fellowship.

Praveen has served as a director of the Southwest Catalysis Society, and as part of various conference organizing committees over the past three years, including the 2019 SWCS Annual Meeting. If elected, he will strive to grow SWCS membership (especially the participation of prospective younger members), bring quality speakers to the club's annual symposia, and foster interactions between industry and academe.



## Candidate for Secretary

### Lin Luo

Principal Research Scientist  
Hydrocarbons R&D  
The Dow Chemical Company  
Freeport, TX



Lin has over 20 years of industrial experience in the petrochemical and refining areas. A technical leader in Dow's Hydrocarbons R&D, Lin has been leading various R&D projects at different stages including concept shaping, concept validation, process development, new catalyst/process technology implementation, and manufacturing improvement. Lin is the primary inventor of Dow's FCDh technology for on-purpose propylene production. Prior to joining Dow in 2006, Lin worked for Akzo Nobel Catalyst/Albemarle for five years where she developed new refining catalysts and provided customer technical support.

An inventor or co-inventor of 25 patent/patent applications and a published author, Lin has also authored more than 80 Dow internal program reports. Lin obtained her M.S. in Physical Chemistry from University of Chicago and Ph.D. in Chemical Engineering from Caltech. She has been on SWCS board since 2010, serving as Director, Secretary, Chair-Elect, Chair and Past-Chair, and was a director of the Catalysis and Reaction Engineering Division of AIChE from 2016 to 2019.

Southwest Region as a hub for petrochemical and energy industries has a high concentration of catalysis experts. It is my goal to continue the vibrant growth of SWCS, facilitate new networking opportunities for its members and promote expertise development within new graduate students in the fields of catalysis and reaction engineering.



## Candidate for Treasurer

### Travis Conant

Staff Scientist  
Polymers & Material Science  
Corporate Research & Development  
SABIC  
Sugar Land, TX 77478



Including my graduate years, I have been working and studying in the field of catalysis for over a decade. My experiences in catalysis have ranged from catalyst incorporation in microreactors to nanoscale characterization of bimetallics to industrial process catalyst development. I have been with SABIC for over 10 years, and my entire time has been spent working on the research and development of industrial catalysts. I have served as the Treasurer for the SWCS since 2015 and was very happy to help plan the 2016-2019 Spring Meetings along with the virtual meetings in 2021.

As a catalysis person, I have always considered the NACS to be one of the most technically applicable and significant national societies, and this is in large part due to the great jobs done by the local clubs like the SWCS. The local club meetings are great for fostering interactions between colleagues and helping expose graduate students to industry. The recent Spring Symposia were very successful meetings with record attendance from both academia and industry. Again, I have enjoyed these past years as Treasurer of the SWCS and look forward to the opportunity to continue in this role for the coming year.



## Candidate for Director: 1 of 4 (Vote for 1 candidate)

### **Prasanna Dasari**

Lead Scientist  
Chemicals Catalysis, Technology & Innovation  
Corporate Research & Development  
SABIC  
Sugar Land, TX 77478



Prasanna Dasari received her B.Tech in Chemical Engineering from India in 2008 and moved to the USA for graduate studies obtaining a Ph.D. in Chemical Engineering under the guidance of Michael Harold from University of Houston in 2013. After graduation, she joined SABIC as a scientist working on multiple catalysis projects on light gas to chemicals, she is currently working in the role of a lead scientist at SABIC technology center (STC-Houston). Including her graduate research experience, she has spent close to a decade learning and working in the field of catalysis. Her expertise includes catalyst design, kinetic modeling and reactor design in heterogeneous catalysis.

Prasanna Dasari has been a member of SWCS since 2010 and a regular participant in the annual spring symposium since her graduate years winning a best poster in 2011. She strongly believes that liaisons between the academia and industry are vital in making innovations and providing creative solutions. If elected as SWCS Director, her goals include: 1) Encourage and promote participation from industry and academic institutions in the SWCS events; 2) Assist in smooth execution of SWCS events; 3) Initiate activities to increase interactions between members from academia and industry especially in the southwest region.



## Candidate for Director: 2 of 4 (Vote for 1 candidate)

### Joaquin Resasco

Assistant Professor  
McKetta Department of Chemical Engineering  
University of Texas at Austin  
Austin, TX 78712



Joaquin Resasco joined the University of Texas at Austin as an Assistant Professor in Chemical Engineering in January 2021. He completed his B.S in Chemical Engineering at the University of Oklahoma, and his Ph.D. in Chemical Engineering at the University of California, Berkeley under the guidance of Professor Alexis Bell. His doctoral research elucidated the effects of electrolyte ions on the kinetics of electrochemical CO<sub>2</sub> reduction. Joaquin followed his graduate work with postdoctoral studies in the Department of Chemical Engineering at the University of California, Santa Barbara working with Professor Phillip Christopher. His postdoctoral work focused on developing relationships between the dynamically evolving structure of atomically dispersed catalysts and their reactivity. Joaquin is the recipient of the UC Berkeley Chancellor's Fellowship and NSF GRFP. He was also selected to the Forbes 30 under 30 list in Science.

Joaquin's current research is focused on the design and understanding of heterogeneous catalysts for sustainable technologies. His group performs synthesis of well-defined catalytic structures, *in-situ* vibrational and x-ray spectroscopy, and kinetic analysis to understand relationships between the structure and reactivity of catalysts. His work includes both thermochemical and electrochemical catalytic reactions.

Joaquin is an active member of the catalysis community. He has chaired sessions for the meetings of the American Chemical Society and American Institute of Chemical Engineering (AIChE) and is the bin-co lead for the "Fundamentals of Catalysis and Surface Science" area for the Fall 2021 AIChE meeting. If elected Joaquin will (1) assist in the organization and promotion of SWCS events, (2) seek new opportunities for engagement between students and industry and (3) seek to continue to increase participation and engagement of the (electro)catalysis communities in the SWCS.





## Candidate for Director: 3 of 4 (Vote for 1 candidate)

### Thomas P. Senftle

Assistant Professor  
Department of Chemical and Biomolecular Engineering  
Rice University  
Houston, TX 77478



Tom Senftle joined Rice University in 2017 as an Assistant Professor in Chemical and Biomolecular Engineering. He earned his BSc in Chemical Engineering at Notre Dame in 2010, where he first began catalysis research under the guidance of Prof. William Schneider. He earned his PhD in Chemical Engineering at Penn State in 2015 working with Prof. Mike Janik on metal-oxide catalysts for hydrocarbon activation. He completed postdoctoral research at Princeton in the group of Prof. Emily Carter working on the computational design of semiconductors for photo-electrochemical applications.

Dr. Senftle's research focuses on the development and application of computational modeling tools for assessing complex, multi-component catalysts at both the electronic and atomistic level. Emphasis is placed on developing fundamental structure-activity relationships informing the rational design of catalytic systems for efficient energy conversion, storage, and utilization. Current projects in the group (1) use statistical learning to elucidate the role of strong metal-support interactions impacting the catalytic behavior of oxide-supported metal clusters and (2) develop accelerated simulation methods tailored to reactive inter-atomic potentials capable of describing heterogeneous interfaces that are common in catalytic systems. Prof. Senftle received a 2018 Doctoral New Investigator Award from the American Chemical Society – Petroleum Research Fund for work on iron-based catalysts for propane dehydrogenation. He also was a Honeywell-UOP invitational speaker in 2019.

Tom was an active member of the Pittsburgh-Cleveland Catalysis Society during his time at Penn State, attending and presenting at numerous annual meetings between 2010 and 2015. After moving to Houston in July 2017, he assisted in organizing logistics for the 2018 Spring Symposium of the Southwest Catalysis Society held at Rice University and was an invited speaker at the 2019 Spring Symposium. These experiences fostered lines of communication between Dr. Senftle and the SWCS community, thus equipping Dr. Senftle with experience and resources necessary for serving as a Director of the SWCS. He also chaired sessions at the national North American Meeting of the Catalysis Society in 2019, and organized a Topical Conference titled "Applications of Data Science in Catalysis and Reaction Engineering" at the 2020 AIChE national meeting last fall. If elected, he would 1) continue to help organize and promote SWCS events, 2) work to increase joint industry-academia networking opportunities for students, and 3) foster connections between the SWCS and the data science community to explore and promote the fast-growing role of AI and machine learning in catalyst discovery.



## Candidate for Director: 4 of 4 (Vote for 1 candidate)

### Hui Yan

Assistant Professor  
Department of Chemistry,  
The Institute for Materials Research and Innovation  
University of Louisiana at Lafayette  
Lafayette, LA 70504



Hui Yan is a surface chemist. Her currently research interests are to develop heterogeneous catalysts with novel structures and to understand structure-activity-mechanism relationships for catalytic reactions in energy and environment sciences, using *operando* spectroscopies. She received her Ph.D. in Environmental Chemistry in 2011, working on surface chemistry of ice films under the direction of Dr. Liang T. Chu, from the University at Albany, SUNY, and completed a postdoctoral training in Dr. Donna Chen's group at the University of South Carolina in 2013, working on model catalysts-bimetallic clusters on reducible oxides, followed by a research associate appointment at NSLS-II of Brookhaven National Lab (BNL), working on the development of synchrotron-assisted Scanning Tunneling Microscopy with Dr. Evgeny Nazaretski. Since Fall 2015, she has been an Assistant Professor in the Department of Chemistry at the University of Louisiana at Lafayette (UL Lafayette). Dr. Yan has won several awards including Achievement in Sponsored Research award, travel awards and undergraduate mini-grant awards from UL Lafayette, and Oral Presentation Award in Young Researcher Symposium at BNL. She is also a certified online teacher at UL Lafayette. Aside from her research and teaching activities, Dr. Yan serves as a panel reviewer for programs at NASA Science Mission Directorate, and Proposal Review Panel of Center of Functional Nanomaterials at BNL, as well as a faculty advisor for Louis Stokes-Louisiana Alliance for Minority Participation Group, and for Women Chemist Society at UL Lafayette. She enjoys organizing and participating outreach activities to have a broader impact on the community.

Dr. Yan has been a member of SWCS since 2018 and co-chaired technical session for 26<sup>th</sup> North American Catalysis Society Meeting in 2019. She is active in attending Gordon Research Conferences including Catalysis. If elected, she would like to (1) catalyze and strengthen interactions between academia and industry, between Louisiana and sister states in Southwest region; (2) assist in SWCS events, and (3) educate/train next generation of workforce, especially women chemist, to work in catalysis field.





## Candidate for NACS Representative

### Michael S. Wong

Professor of Chemical and Biomolecular Engineering  
Tina and Sunit Patel Professor of Molecular Nanotechnology  
Department Chair  
Department of Chemical and Biomolecular Engineering  
Rice University  
Houston, TX 77478



Dr. Michael S. Wong is Professor and Chair of the Department of Chemical and Biomolecular Engineering at Rice University. He is also Professor in the Department of Chemistry, Civil and Environmental Engineering, and Materials Science and Nano Engineering. He was educated and trained at Caltech, MIT, and UCSB. His research program broadly addresses chemical engineering problems using the tools of materials chemistry, with a particular interest in energy and environmental applications ("catalysis for clean water") and an emphasis on understanding synthesis-structure-property relationships in heterogeneous catalysis and materials. He has received numerous honors, including the MIT TR35 Young Innovator Award, Guest Professorship at Dalian Institute of Chemical Physics (DICP), the NACS/SWCS Excellence in Applied Catalysis Award, the American Institute of Chemical Engineers (AIChE) Nanoscale Science and Engineering Young Investigator Award, Southwest Region ACS Award, and ACS Fellow. He is Past-Chair of the American Chemical Society Division of Catalysis Science and Technology (CATL), and serves on the Applied Catalysis B: Environmental editorial board. He has been a member of SWCS since 2003, and served as its Chair, Chair-elect, Secretary, and Past Chair (2011). Under his leadership, he guided the re-organization of the annual SWCS meetings; increased industry sponsorship and interest, and re-engaged faculty from the region to give talks and to send students to compete at the poster competition. He served on the organizing committee and as the Kokes Awards Chair of the biennial North American Meeting held in Houston, TX in 2007. Running for the position of NACS Representative, Michael would bring a wealth of experience and a deep perspective of the Houston/Gulf Coast catalysis community to the NACS Board, representing the interests of SWCS students, faculty, and industry members.