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ACS Webinars
Chemistry and the Economy: Supply Chain Woes and Industrial “Sprouting” Green?

Date: Thursday, June 3, 2021 @ 2:00p ET
Speaker: Paul Holdgrafer, New Normal Consulting
Moderator: Bill Carroll, Carroll Applied Science

What You Will Learn:
• How businesses can be more successful by taking a more holistic view of the environment in which they operate
• How companies are refocusing due to the shift in consumer demand and the need to work towards a greener economy
• A macro examination of the state of the global economy and the implications for the US and other countries.

Co-produced with: ACS Industry Member Programs and ACS Division of Business Development and Management.

How to Recognize and Respond to Microaggressions

Date: Wednesday, June 9, 2021 @ 2:00p ET
Speaker: Patrice Danker, She Geeks Out
Moderator: Paula Christopher, American Chemical Society

What You Will Learn:
• What a microaggression is, looks like, and how it manifests
• How to respond to microaggressions if you experienced one or how to respond to someone who has shared that they have been offended by something you did or said
• How to respond to a microaggression if you witnessed one, but were not an active participant.

Co-produced with: ACS Office of Diversity, Equity, Inclusion & Respect and ACS Diversity, Equity, Inclusion & Respect Advisory Board

Bioinspired Nanomaterials: From Discovery to Market Pipeline

Date: Thursday, June 10, 2021 @ 2:00p ET
Speakers: Siddharth Palanathan, The University of Sheffield (UK)
Moderator: David Constantine, American Chemical Society

What You Will Learn:
• Why the understanding bio-nano interface is a powerful basis for designing bioinspired syntheses of functional nanomaterials
• How careful design of bioinspired nanomaterials can provide commercially relevant products
• Why process chemistry, scale-up and downstream processing are equally important in reaching the market.

Co-produced with: ACS Green Chemistry Institute

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Artificial Intelligence in Chemistry: Current Trends and Future Opportunities

This ACS Webinar will begin shortly...

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Current trends and opportunities

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Expert Panelists & Moderator

James Collins  
Professor of Med Engineering & Science, Biological Engineering, MIT

Jurgen Cox  
Professor, Max Planck Institute of Biochemistry

Yugal Sharma  
Senior Director, CAS Custom Services

Angela Zhou  
(Moderator)  
Information Scientist, CAS
Al-related journal publications has grown exponentially since 2015

Yet, analytical chemistry leads the way

Highest percentage of AI related publications among all disciplines
Poll Question #1
Are AI and machine learning techniques already being used in your research organization?

• Yes, it’s being used often
• Yes, but only in a few isolated projects or initiatives
• No, it’s not being used in your organization
• Not applicable

AI is enabling interdisciplinary research
Cross referencing relevant overlap between disciplines

CAS scientists categorize each publication and cross references it with related disciplines
Analytical x Biochemistry
- AI improving analysis of proteins, peptides, lipids, nucleic acid and metabolites

Materials x Physical Chemistry
- Predicting functional materials, structure-property relationships, and chemical process optimization
Biochemistry x Pharma
- Molecular design, immune predictors, drug-biomolecule interaction, predicting drug activity with biomarker data

Analytical x Biochemistry
- AI improving analysis of proteins, peptides, lipids, nucleic acids, metabolites, and DNA

Materials x Physical Chemistry
- Predicting functional materials, structure-property relationships, and chemical process optimization

Poll Question #2
Which of the following do you believe is the biggest challenge hindering application of AI techniques, in chemistry research organizations?

- Lack of clear strategy
- Insufficient investment
- Insufficient data availability
- Talent gaps in data science
- Organizational culture
Continue exploring
For more AI related resources

CAS.ORG/RESOURCES

Blogs  Whitepapers  Articles  Case Studies

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JAMES COLLINS
Professor of Medical Engineering & Science, Biological Engineering, MIT

JÜRGEN COX
Professor, Max Planck Institute of Biochemistry

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ANGELA ZHOU
Information Scientist, Content Operations, CAS

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