## UCRIVERSITY OF CALIFORNIA Materials Science and Engineering

## WINTER 2021 COLLOQUIUM SPEAKER

**FEBRUARY 17, 2021** 

## **Curious Minds and Materials Discoveries**

Curiosity-driven discoveries can often inspire new hypotheses in scientific research and solutions for problems. I will start with a few curiosity-driven discoveries about graphene oxide (GO) sheets, the chemical exfoliation products of graphite powders, leading to new materials-agnostic hypotheses about 2D systems and new applications. These include GO's amphiphilicity and function as 2D surfactant, fluorescence quenching microscopy for seeing 2D materials, bulk nanofluidic materials, aggregation-resistant paper-ball like ultrafine particles, viscoelastic colloidal doughs and isotropic 2D solids, and the application of GO to solve some difficult chemical problems in hair coloring. Next, I will introduce some recent effort in developing material approaches for chemical and physical modulation of respiratory droplets, aiming to strengthen public health responses to mitigate and control the spread of infectious respiratory diseases.

## **ZOOM MEETING ID 967 5468 5049**

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Jiaxing Huang is a Professor of Materials Science and Engineering at Northwestern University. He received his B.S. degree in Chemical Physics from University of Science and technology of China, Ph.D. in Chemistry from University of California, Los Angeles, and became a Miller Fellow at UC Berkeley before joining Northwestern in 2007. Prof. Huang enjoys integrating education and research to enhance learning experience for his students and himself. In research, his group uses chemical principles and tools to discover new materials, advance materials processing, and use material innovations for better living. Through teaching, they aim to develop intuition, inspire creativity and bring the best out of students and themselves. His work has been recognized by awards from the National Science Foundation, the Sloan Foundation, the Society of Manufacturing Engineers, the American Vacuum Society, and the International Aerosol Research Assembly. He has been a recipient of the Guggenheim Fellowship, the JSPS Fellowship from Japan, and the Humboldt Research Award from Germany. He is a Fellow of the American Association for the Advancement of Science (AAAS) and the founding Editor-in-Chief of Accounts of Materials Research.