



# CMCC *Mechanochemistry Discussions*

Online Seminar Series

## New Materials at High Pressure

Pre-recorded talk streaming at  
10:00 AM (CT)

THURS., March 18, 2021

on the CMCC YouTube Channel:  
[Dr. Wendy Mao Seminar](#)



Wendy Mao

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### ABSTRACT:

The application of extreme environments (including variable pressure, temperature and irradiation) can induce dramatic changes in materials and give us a much broader field to discover new phases and explore novel phenomena. This has applications to a wide range of fields including Earth and planetary science, condensed matter physics, and solid state chemistry. Improving our understanding of the modifications that occur at high pressure can also provide guidance for designing improved materials with desirable properties that can be utilized for energy-related applications. I will present some examples to demonstrate the range of new materials and properties which can be altered under extreme environments. In particular, I will focus on experimental work using high pressure as a powerful variable for tuning materials behavior.



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