



# CMCC Mechanochemistry Discussions

## Online Seminar Series

### *Mechanochemistry as a Tool for Facilitating Crystallization and Synthesis of Multi-component Solids*

Livestreaming at  
10:00 AM (CT)

THURS., July 21, 2022

on the CMCC YouTube Channel:  
<https://www.youtube.com/channel/UC7eCYPKbGTKpgO7W2bNABxg>



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Texas Tech University  
<https://hutchinsgroup.wixsite.com/materials>

#### ABSTRACT:

The use of mechanical force to conduct chemical transformations has recently re-emerged as a green and efficient method for synthesizing metal-organic frameworks, cocrystals, and conducting organic transformations. Compounds that are not obtainable through traditional, solution-based techniques have also been successfully prepared using mechanochemistry. Here, we describe a strategy for crystallizing liquids using a solid component that facilitates crystallization of the components into a multicomponent solid. The method utilizes mechanochemistry as a key step in the preparation of the crystals, which are otherwise difficult or impossible to obtain using standard solution-growth techniques. Spectroscopic characterization demonstrates a difference in products obtained from mechanochemistry and failed solution crystallizations. We will also discuss our use of mechanochemical methods for preparing cocrystals of pharmaceutically-relevant materials.



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