



EXPLORING THE LANDSCAPE OF INSTRUCTIONAL PRACTICE FOR TEACHING SYMMETRY IN INORGANIC CHEMISTRY CLASSROOMS

VIRTUAL SEMINAR

Monday

April 21, 2025

3:00 – 4:00 p.m.

[Online via Zoom](#)

Meeting ID:
972 8870 6746

Passcode:
317995

Symmetry is a fundamental concept in inorganic chemistry, playing a key role in understanding how molecules behave and interact. However, we know surprisingly little about how it is taught or what influences instructors' choices in covering symmetry. To explore this, we observed 14 inorganic chemistry instructors from various institutions, analyzing their teaching practices and how they balance fundamental symmetry concepts with real-world applications. Our research identified four teaching profiles, ranging from highly student-centered approaches, where group work dominates, to more traditional lecture-based formats. We also found that instructors emphasize different aspects of symmetry, with some focusing mainly on basic principles like symmetry elements, operations, and point groups, while others balance these fundamentals with broader chemistry applications. Interviews with these instructors gave us insights into why they make these teaching choices. These findings highlight distinct instructional approaches to teaching symmetry, offering insights into how different teaching practices and content emphasis could potentially impact student learning.



Maia Popova, Ph.D.
Associate Professor
Department of Chemistry & Biochemistry
University of North Carolina at Greensboro