

Title: **Embracing Student-Centered Guest Lectures in Crystallography Education for Chemistry Students**

Authors: Shao-Liang Zheng*

zheng@chemistry.harvard.edu

Affiliation: Department of Chemistry and Chemical Biology, Harvard University, 12 Oxford Street, Cambridge, MA 02138, United States

Abstract Text:

A major part of our educational mission as chemical crystallographers is to make sure chemistry students can understand the basic but important concepts of crystallography,[1] develop the skills they need and use crystallography in their future research. In the past several years, we have incorporated student-centered guest lecturing[2] into our practical crystallography course, which is taught to graduate and upper-level undergraduate chemistry students.[2-4] Such approach not only focuses on the “source” of advanced crystallography techniques that allows students to learn what crystallography can do for their research, but also provides the students with exposure to a much broader range of real-world applications. Students are able to develop a deeper understanding of some key concepts with the related experience from guest lecturers, explore the opportunities that crystallography offers, and employ such experiments in their own research.[5]

References:

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- (4) Zheng, S.-L.; Campbell, M.G. Connecting Key Concepts with Student Experience: Introducing Small-Molecule Crystallography to Chemistry Undergraduates Using a Flexible Laboratory Module. *J. Chem. Educ.*, 2018, 95 (12), 2279–2283.
- (5) Example see: Powers, D. C.; Anderson, B. L.; Hwang, S. J.; Powers, T. M.; Pérez, L. M.; Hall, M. B.; Zheng, S.-L., Chen, Y.-S.; Nocera, D. G. Photocrystallographic Observation of Halide-Bridged Intermediates in Halogen Photoeliminations. *J. Am. Chem. Soc.* 2014, 136 (43), 15346–15355.