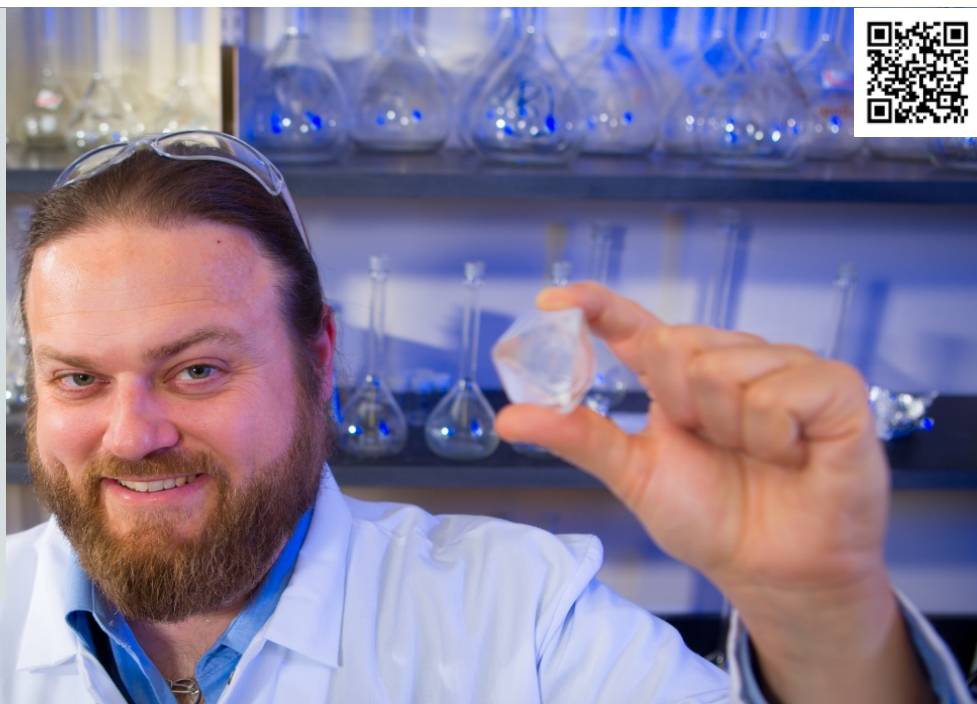


**PHYSICAL SEMINAR
MONDAY,
FEBRUARY 1, 2016
4:00 P.M.
HUTCHISON HALL
473
DEPARTMENT OF
CHEMISTRY
UNIVERSITY OF
ROCHESTER**



**GUEST SPEAKER:
PROFESSOR JASON
BENEDICT
UNIVERSITY AT BUFFALO,
DEPARTMENT OF
CHEMISTRY**

“Watching crystals work: Structural dynamics of metal-organic frameworks ”

Abstract: Photochromic technologies have the potential to transform traditionally passive materials into active materials which change their chemical or electronic properties in response to light stimulus. New photochromic materials are being synthesized and reported at an extremely rapid rate driven in large part by the numerous potential applications for these advanced materials including molecular switches, sensors, data storage, photomechanical devices and even biological switches. One of the newest emerging applications for photochromic technologies being developed in the Benedict research lab is the development of photo-responsive metal-organic frameworks (MOFs): highly porous crystalline frameworks capable of undergoing structural reorganization upon application of light. The Benedict group is also developing cutting edge *in situ* X-ray diffraction techniques to study the structural reorganization, both photo-induced and through guest exchange, under ‘real world’ conditions in order to develop a molecular level understanding of the processes that occur within these important materials.

Host: Professor David McCamant, email: dmccaman@ur.rochester.edu