

Aldrich Seminar in Synthetic Organic Chemistry *9:45 a.m. Thursday, October 18, 2012, 331 Smith Hall*

Associate Professor

Mohammad Movassaghi

Department of Chemistry
Massachusetts Institute of Technology



Complex Alkaloid Total Synthesis

Research interest is synthetic organic chemistry in broad terms, including complex natural product synthesis in concert with the discovery and the development of new reactions for organic synthesis. The group's focus is the synthesis of structurally interesting and biologically relevant natural products that provide a platform for further methodological developments and detailed mechanistic studies. These synthetic efforts are complemented with programs aimed at the development of new transformations for organic synthesis including catalytic and asymmetric processes.

Website: <http://www.mit.edu/~chemistry/faculty/movassaghi.html>

Abstract

Several representative enantioselective alkaloid total syntheses and related methodologies will be discussed. Of particular interest to these programs is the development of unifying strategies guided by biogenetic considerations for each alkaloid family of interest. These syntheses feature new stereo- and chemoselective reactions that enable maximum use of the inherent chemistry of intricate intermediates.