

Physical Chemistry Seminar

Tuesday,
March 17, 2015

11:00 am

Room 1315
Chemistry Building

Patterns of crystal orientation at the nanoscale in biominerals



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Biominerals include mollusk shells and the skeletons of algae, sponges, corals, sea urchins and most other animals. The functions of biominerals are diverse: mechanical support, attack, defense, grinding, biting, and chewing, gravitational and magnetic field sensing, light focusing, and many others. In this talk I will show how our imaging method termed PIC-mapping reveals the nanocrystalline orientation patterns in mollusk shell nacre, and how these patterns form, in part under biological control, but also abiotically: a clear case of biology harnessing physics for the evolutionary advantage of the organism.



Refreshments will be available prior to the seminar at 10:45 a.m. outside room 1315