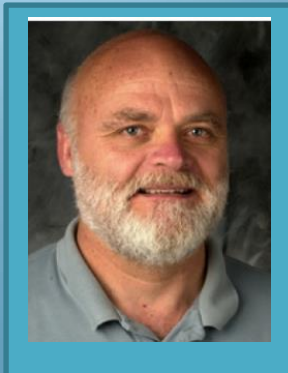


MSE-Colloquium@NTU

27 November 2018, 2:30 pm

Lecture Theatre 8, Nanyang Technological University, Singapore



Phase-Separated Compartments Control Chemical Reactivity: Lessons from Mussels & Bloodworms

Professor Herbert Waite
Distinguished Professor
University of California, Santa Barbara

Abstract

A fascinating new theme which is emerging in biomacromolecular materials research has to do with the interdependence of chemical reactivity and phase behaviour. My presentation will highlight recent discoveries which offer glimpses into the role which phase separation plays on catechol reactivity in mussel adhesion and bloodworm melanin composites. The insights are broadly relevant to better controlling redox processes in polymer composites, but also for energy storage materials.

Biography

Professor Herbert Waite received his A.B. from Harvard College in Cambridge, MA in 1971, Ph.D. in Biochemistry from Duke University in Durham, North Carolina in 1976, and completed his postdoctoral work at the University of Copenhagen among other institutions. Thereafter, he became a faculty member for 12 years at the University of Delaware in the Chemistry and Marine Studies programmes before moving to the University of California, Santa Barbara (UCSB) in 1998. Professor Waite was elected as a Fellow of the American Association for the Advancement of Science in 2009 and was co-leader of IRG-1 for the new Materials Research Science & Engineering Center (MRSEC) at UCSB funded by NSF.



SCHOOL OF
MATERIALS SCIENCE
AND ENGINEERING