



# 2010-2011 POCC Lecture Series

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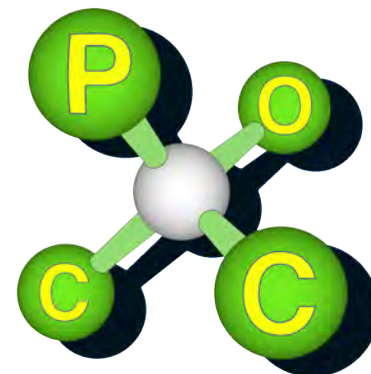
Professor Jon C. Antilla

University of South Florida

*New Developments in Chiral Phosphate Based  
Catalytic Asymmetric Methodology*

Carolyn Hoff Lynch Lecture Hall  
Chemistry Building, University of Pennsylvania

The Philadelphia  
Organic Chemist's  
Club



POCCclub.org

Jon C. Antilla was born in the Upper Peninsula of Michigan in a small iron ore-mining town of 800. He received his B.S. from Northern Michigan University (1995) and Ph.D. in organic chemistry at University of Chicago (2000) with Professor William D. Wulff. He was an NIH-NCI postdoctoral fellow at The Massachusetts Institute of Technology from 2000-2003. He then pursued his independent research as an Assistant Professor at The University of Mississippi (2004) and at The University of South Florida (2006). He was a Visiting Professor at University of Le Havre in France in 2009 and was recently promoted to Associate Professor at USF in 2010. Antilla has received an Excellence in Research Award at USF and an NSF CAREER award in 2008. Antilla's interests are centered on the development of novel methods for asymmetric catalysis, reaction mechanisms, and drug discovery.

**Abstract:** The Antilla group has focused their efforts toward the exploration of chiral phosphoric acid and chiral phosphate mediated stereoselective reaction methodology. To this end, the Antilla group has developed the first true catalytic approaches to for direct formation of chiral N,N- and N,O- and N,S-aminals. More recent developments in the Antilla group have found conditions for a highly enantioselective catalytic allylation of aldehydes. Other reactions being studied include the pinacol rearrangement, and the chlorination and oxylation of oxindoles using chiral phosphate salts as catalysts.