

F. Dean TOSTE, Professor

Department of Chemistry,
University of California, Berkeley
Suita, Osaka 565-0871, Japan
Tel: 1-510-642-2850
E-mail: fdtoste@berkeley.edu



Education

Ph. D. (Dec. 2000), Stanford University; M. Sc. (Aug, 1995), B. Sc. (June, 1993), University of Toronto

Academic Carrier

2001 (Jan)-2002 (July): Post-doctoral fellow, Department of Chemistry, California Institute of Technology (supervisor: Prof. Robert H. Grubbs)

2002 (Aug): Assistant Professor, Department of Chemistry, University of California, Berkeley

2006 (August): Associate Professor, Department of Chemistry, University of California, Berkeley

2007-: Faculty Scientist, Chemical Science Division, Lawrence Berkeley National Laboratories

2009 (May): Professor, Department of Chemistry, University of California, Berkeley

Awards and Honors

Mukaiyama Award (2011); Tetrahedron Young Investigator Award (2011); Fellow of the Royal Society of Chemistry (2010); RSC, Merck Award (2010); Solvias Ligand Prize (2009); Thieme-IUPAC Prize in Synthetic Organic Chemistry (2008); ACS, Elias J. Corey Award (2008); BASF Catalysis Award (2007); Organometallic Chemistry Directed Towards Organic Synthesis (OMCOS) Award (2007); Novartis Young Investigator Award (2006); Roche Excellence in Chemistry Award (2006); ACS, Cope Scholar Award (2006); AstraZeneca Excellence in Chemistry Award (2005); Pfizer Research Laboratories Creativity in Organic Synthesis Award (2005); Amgen Young Investigator (2005); Abbott Laboratories New Faculty Award (2005); Alfred P. Sloan Research Fellowship (2005); BMS Unrestricted Grant in Synthetic Organic Chemistry (2005); NSF CAREER Award (2005); GlaxoSmithKline Chemistry Scholar Award (2004); Eli Lilly Grantee Award (2004); Dupont Young Investigator Award (2004); Boehringer-Ingelheim New Faculty Award (2003); Research Corp., Research Innovation Award (2002); Camille and Henry Dreyfus New Faculty Award (2002); ACS, Nobel Laureate Signature Award (2002)

Total Publications

(SCI: 123), Citation (SCI): 7885 (2011, September), h-index: 53

Concepts and Catalysts for Selective Reactions of C-C Multiple Bonds

F. Dean Toste

Department of Chemistry, University of California-Berkeley, Berkeley, California, 94611-1460, USA

fdtoste@berkeley.edu

This lecture will emphasize a reactivity driven approach to development of electrophilic catalysts for addition, rearrangement and coupling reactions of C-C multiple bonds. More specifically, the application of cationic gold(I) complexes, chiral counterions and chiral acids in enantioselective transformations initiated by π -activation will be discussed. Particular attention will be devoted to the mechanistic hypotheses that form the basis for catalyst discovery and the development of new reactions.