ICIQ

Institut Català d'Investigació Química

2011 Seminar Program

Av. Països Catalans, 16, Campus Sescelades (St. Pere i St. Pau), Tarragona. Tel. 977920200

New Catalytic Reactions for Synthesis and Functionalization of Complex Molecules

Prof. John Montgomery

University of Michigan (USA)

Friday 21st January, 2011. ICIQ Auditorium, 12 p.m.

Professional Career

John Montgomery was born in 1965 in Concord, N.C. He studied chemistry at the University of North Carolina in 1987 under the direction of Profs. Joe Templeton and Maurice Brookhart where his undergraduate research experience sparked his interest in organometallic chemistry. He received his Ph.D. at Colorado State University in 1991 under the direction of Prof. Louis Hegedus, and he was an American Cancer Society Postdoctoral Fellow at the University of California at Irvine from 1991-1993 with Prof. Larry Overman.

In 1993, he began his independent career at Wayne State University, and he moved to the University of Michigan at Ann Arbor in 2005. He has received a number of awards including the Arthur C. Cope Scholar Award, a National Science Foundation Career Award, a Pfizer Michigan Green Chemistry Award and a Camille Dreyfus Teacher Scholar Award. He has coauthored over 65 research publications and presented over 190 invited lectures at various symposia, meetings, academic institutions and pharmaceutical and biotechnological companies.

Research Interests

John´s independent career has focused on the use of transition metals in reaction discovery, synthetic methodology development, mechanistic chemistry, and complex molecule synthesis. A number of new nickel-catalyzed reactions have been discovered in his laboratory involving the reductive coupling of two p-components with a reducing agent. Among these, the reductive coupling of aldehydes and alkynes, enones and alkynes, and aldehydes and allenes have been most extensively developed. Total or formal syntheses completed by the Montgomery group using nickel-catalyzed reductive couplings as key steps include several members of the allopumiliotoxin, kainic acid and domoic acid families of natural products as well as testudinariol A, isogeissoschizine, aigialomycin D, and pentalenene.