CiQUS

Centro Singular de Investigación en Química Biolóxica e Materiais Moleculares

Conferencia:

The unexpected synergy between C-H oxidation catalysis and organoalumium photochemistry

Abraham Mendoza

Arrhenius Laboratory - Universidad Estocolmo

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Aula de Seminarios do CIQUS

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The unexpected synergy between C-H oxidation catalysis and organoaluminum photochemistry

Stereo-retentive C-H oxidation reactions have recently enabled the modification of complex aliphatic compounds. The low catalytic efficiencies that are commonly observed in this chemistry are symptomatic of fast deactivation processes.

Our approach to inhibit (or retard) the deactivation of these catalysts was based on complex ligands, whose synthesis has inspired the development of abnormal photo-cycloaddition reactions using aluminum organometallics and visible light.

Dr. Abraham Mendoza
Group leader
Arrhenius Laboratory
Stockholm University

www.organ.su.se/am

Abraham was born and raised in Gijón, a city in the beautiful region of Asturias, in the north coast of Spain. There, he completed his undergraduate studies in Organic and Inorganic Chemistry at the University of Oviedo (2000-2004).
Then, Abraham joined the research group of Prof. José Barluenga at the same university, under the co-supervision of Prof. Javier Fañanás and Dr. Félix Rodríguez (2003-2010). Following an early education (MSc) on the organometallic of chemistry metal-carbene complexes, his PhD was earned studying new modes of catalytic activation of alkynes, culminating in the total synthesis of (–)-Berkelic Acid.
After completing his PhD, he was honored to join Prof. Baran's laboratories at The Scripps Research Institute (La Jolla, CA, USA) on a Fulbright Fellowship (2010-2012). Under Phil's mentorship, he was introduced to the total synthesis of natural products using C-H functionalization logics (taxanes) and the development of methods for that purpose.
Then, he moved back to Europe as a Marie Curie Fellow (2012-2014) at the University of Cambridge, working under the supervision of Prof. Matthew Gaunt on bioorthogonal chemistry and C-H insertion catalysis.
In late 2013, he joined the Department of Organic Chemistry at the Stockholm University to start his independent research career as a Junior Researcher of the Swedish Research Council (2013-2017).