


## CiQUS Lecture




**Prof. Ruben Martin**  
**Ni-catalyzed functionalization  
of strong s bonds**

Thursday, January 26, 2023  
12:30 pm CiQUS Seminar Room

FONDO EUROPEO DE DESENVOLVEMENTO REXIONAL  
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### Abstract:

The recent years have witnessed a renaissance in the general area of Ni-catalyzed reactions. The popularity of these processes is mainly attributed to the unique features of nickel when compared to its d10 congeners, and the promiscuity of nickel to participate in multiple redox manifolds. Our research group has reported some progress directed towards the utilization of feedstock materials en route to added-value chemicals by means of Ni-catalyzed functionalization of strong s bonds. Among these, we have shown the ability for incorporating carbon dioxide (CO<sub>2</sub>) into organic matter or catalytic techniques that make use of simple (un)saturated hydrocarbons or native functionality to build up molecular complexity from simple precursors without losing sight their mechanistic considerations, when appropriate. These methods are characterized by their simplicity, wide scope, including challenging substrate combinations.

### Biosketch:

Ruben Martin was born in Barcelona in 1976. He received his Ph.D in 2003 at the Universitat de Barcelona with Prof. Antoni Riera, working on the total synthesis of glycosidases inhibitors. In January 2004 he moved to the Max-Planck-Institut für Kohlenforschung as a Humboldt postdoctoral fellow with Prof. Alois Fürstner, where he worked on the application of novel iron catalysts for cross-coupling and Alder-ene type reactions. In May 2005 he undertook further postdoctoral studies at the Massachusetts Institute of Technology as a MEC postdoctoral fellow with Prof. Stephen L. Buchwald where he developed new synthetic strategies for metal-catalyzed C-C and C-N bond-forming reactions. In September 2008 he joined the ICIQ as a group leader. His

current research interests concern the discovery and development of synthetically useful organometallic methodologies. Rubén Martín was promoted to Associate Professor in July 2013. In October 2013, he became ICREA (Catalan Institution of Research and Advanced Studies) Research Professor. During his time at ICIQ, he has been awarded with an ERC-StG, 2 Proof of concept ERC Grants and an ERC-AdvG. In addition, he has received the 2017 OMCOS Award, 2018 Hirata Award, 2018 Band Sabadell Award to Sciences and Engineering or the 2020 Arthur Cope Scholar Award, among others