









CiQUS Lecture



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S,O-Ligand-promoted Pd-catalyzed
C-H Functionalization Reactions
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More info: Research Group website

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Abstract:

Metal-catalyzed C-H functionalization has become a powerful synthetic tool to introduce complexity in organic molecules since no pre-functionalization of starting materials is required, reducing the number of synthetic steps, the cost of the process and the waste formation, all key aspects for the development of sustainable synthetic routes. However, the low reactivity and selectivity observed in many of these processes hamper the broad implementation of this strategy in organic laboratories. To unlock the full potential of metal-catalyzed C-H functionalization, the discovery of new ligands capable of increasing the reactivity and controlling the selectivity is of central importance.

In this communication, I present a new type of bidentate S,O-ligands, namely thioether carboxylic acids, that are capable to promote the C-H functionalization of a wide range of aromatic compounds.

Biosketch:

M. Ángeles (Tati) Fernández-Ibáñez was born in Madrid. She received in 2006 her PhD at Universidad Autónoma de Madrid (UAM) Spain, under the supervision of Prof. José L. García Ruano and Prof. M. Carmen Maestro.

During that period, she carried out a predoctoral stay in Boston College, USA, with Prof. Scott J. Miller. Subsequently, she joined as a postdoctoral researcher (2006-2009) at the group of Prof. Ben. L. Feringa at the University of Groningen, The Netherlands.

After one year in the Medicinal Chemistry Institute at CSIC in Madrid, she moved to the group of Prof. Juan Carlos Carretero at the UAM as Research Associate. In 2012 she was appointed Assistant Professor at the Department of Organic Chemistry at the UAM. In January 2015 she moved to the University of Amsterdam (UvA) as Assistant Professor (tenure-track) and in 2017 she was promoted to Associate Professor.