

Applied Organometallic Chemistry

www.researchgate.net/profile/Andrea_Biffis

+39 049 827 5216 (AB); 5655 (CT)



Andrea Biffis (andrea.biffis@unipd.it); Cristina Tubaro (cristina.tubaro@unipd.it)

The focus of the research of the group lies in the design, synthesis and characterisation of selected classes of organometallic compounds with potential application as catalysts, as bioactive compounds or as active components for advanced materials and devices (luminescent devices, sensors, liquid crystals etc.). In particular, the main target are late transition metal complexes with N-heterocyclic carbene ligands (NHCs). The structure and properties of the carbene ligands are matched to the type, oxidation state, and coordination geometry of the metal centre to yield complexes with the desired properties. Ongoing research projects involve complexes with heteroditopic ligands (dicarbenes, phosphinocarbenes) as well as complexes with NHCs derived from natural compounds.

- *Gold(III) Bis(di-N-heterocyclic carbene) Square Planar Trication with Axial Ligand Interactions with Bromides from Ag/Br Counteranion Assemblies*, *Organometallics*, **2017**, 36, 2285-2292.
- *Advances in Transition-Metal-Catalysed Alkyne Hydroarylations*, *Chem. Rec.*, **2016**, 16, 1742-1760.
- *Insights into the Halogen Oxidative Addition Reaction to Dinuclear Gold(I) Di(NHC) Complexes*, *Chem. Eur. J.*, **2016**, 22, 10211-10224.
- *Chelate Palladium(II) Complexes with Saturated N-Phosphanyl-N-Heterocyclic Carbene Ligands: Synthesis and Catalysis*, *Organometallics*, **2016**, 35, 762-770.