

Research Cooperations

Current International Cooperation

OMC-Rennes-China in Catalysis since 2021

Between P. H Dixneuf and Professor Min Zhang, South China University and Technology SCUT, Canton, P. R. China

Our cooperation aims at reaching Innovations in Catalysis and Green Chemistry via Interrupted Hydrogenation of Heteroarenes and Aromatic systems often with HCOOH with novel homogeneous or heterogeneous SAC. This cooperation since 2021 has led to 18 publications.

Teams and Rennes previous successive cooperations

Fruitful cooperations within the Catalysis and Organometallics laboratory of the "Institut Sciences Chimiques de Rennes" UMR 6226 CNRS-Université de Rennes, with:

Prof Christian Bruneau, from alkyne activation, enantioselective hydrogenation, alkene metathesis to C-H bond activation

Dr Sylvie Dérien, Associate professor (catalysis and fine chemistry with ruthenium catalysts)

Dr Cédric Fischmeister, IR CNRS (alkene metathesis and catalysis)

Prof Christophe Darcel, (C-H bond activation with Ruthenium) with Prof Li Bin Wuyi University, Jiamen Guangdong province, China

Prof Henri Doucet, DR CNRS (C- H bond activation with Palladium with Chen Lu , Charles Bheeter)

Dr Jean-François Soulé CR CNRS (Phosphine & Nitrogen ligands catalytic C-H bond functionalization with Rh and Ru based catalysts with Chang Sheng Wang and Zhuan Zhang)

Main Recent international cooperations

Bekir Cetinkaya, University of Izmir, and **İsmail Özdemir**, University of Malatya (Turkey) Metal-NHCcarbenes and catalysis, (CNRS-TUBITAK/COST Actions) (*15 publications*)

Serguei N. Osipov, INEOS, Moscow (Russia), INTAS Programme, PICS CNRS and GDRE CNRS Moscow Academy of Sciences (*19 Publications*)

Matthias Beller LIKAT Rostock for new catalytic systems and green catalysis (*7 publications*) European Network IDECAT, Beller-Bruneau LIA CNRS-Leibniz Institute Rennes-Rostock

XiaoFeng Wu LIKAT Rostock Germany new catalytic processes involving radicals. LIA CNRS-Leibniz institute (*9 publications*)

Min Zhang South China University of Technology SCUT, Canton, Guangzhou, Innovations in Catalysis and Green Chemistry via Interrupted Hydrogenations of Heteroarenes and Aromatic systems with new catalysts (*18 publications since 2021*)

Main former cooperations for kinetics and Theory

Anny Jutand, ENS Ulm Paris, For kinetics, electrochemistry and catalysis mechanisms

Odile Eisenstein, **Eric Clot**, Montpellier (France) Theoretical studies of catalytic mechanism

Carlo Mealli CNR Florence (Italy) Computational studies of Organometallic reactions

Feliu Maseras ICIQ, Tarragona and Universidad de Barcelona (Spain) Computational studies of catalytic cycles for C-H bond activation

Past International cooperations Fruitful cooperations have led to many publications

- **Zuowei Xie**, Chinese University of Hong Kong (*4 publications*)

Carborane ruthenium complexes and catalysts, (PROCORE)

- **Irina P Beletskaya**, Lomonosov university Moscow Phosphine addition to alkynes CNRS-Lomonosov University+ INTAS programme (*1 Publication*)

- **Claudio Bianchini**, CNR Florence: “activation of small molecules” European HCM network

- **Alois Fürstner** indenylidene-Ru catalysts for alkene metathesis (*3 publications*)

- **Peter W. Fehlhhammer**, Freie Universität Berlin on Carbenes within Humboldt cooperation (*2 publications*)

- **Armin de Meijere**, University of Goettingen *activation of cyclopropylalkynes* (*2 publications*)

- **Arthur J. Carty** university of Waterloo Activation by bimetallic systems (*17 publications*)

International cooperations with north Africa

With Hamed Ben Ammar from Tunisia Monastir university (*6 publications*)

With Naceur Hamdi Tunis (*4 publications*)

With Taibi Ben Hadda University Mohamed 1er Oujda Marocco (*8 publications*)