

## List of publications of Dr. Josep Cornella

34. *Bi(I)-catalyzed Transfer-Hydrogenation with Ammonia Borane*. Wang, F.; Planas, O.; Cornella, J. *J. Am. Chem. Soc.* **2019**, 141, 4235
33. *Ni-catalyzed Reductive Liebeskind-Srogl Alkylation of Heterocycles*. Ma, Y.; Cammarata, J.; Cornella, J. *J. Am. Chem. Soc.* **2019**, 141, 1918
32. *A Highly Reduced Ni-Li-Olefin Complex for Kumada-Corriu Cross-Couplings*. Nattman, L.; Lutz, S.; Ortsack, P.; Goddard, R.; Cornella, J. *J. Am. Chem. Soc.* **2018**, 140, 13628.
31. *A Perspective in Catalysis: Development of Efficient Methods in the Age of Sustainability*. O'Neill, M. J.; Cornella, J. *CHIMIA* **2018**, 72, 601.
30. *Retaining Alkyl Nucleophile Regiofidelity in Transition-Metal-Mediated Cross-Couplings to Aryl Electrophiles*. O'Neill, M. J.; Cornella, J. *Synthesis* **2018**, 50, 3974.
29. *Selective Functionalization of Aminoheterocycles by a Pyrylium Salt*. Moser, D.; Duan, Y.; Wang, F.; Ma, Y.; O'Neill, M. J.; Cornella, J. *Angew. Chem. Int. Ed.* **2018**, 57, 11035.
28. *Thorpe-Ingold Effect for Branch-Selective Alkylation of Unactivated Aryl Fluorides*. O'Neill, M. J.; Riesebeck, T.; Cornella, J. *Angew. Chem. Int. Ed.* **2018**, 57, 9103.
- Previous to MPI**
27. *CITU: A Peptide and Decarboxylative Agent*. deGruyter, J. N.; Malins, L. R.; Wimmer, L.; Clay, K. J.; Lopez-Ogalla, J.; Qin, T.; **Cornella, J.**; Liu, Z.; Che, G.; Bao, D.; Stevens, J. M.; Qiao, J. X.; Allen, M. P.; Poss, M. A.; Baran, P. S. *Org. Lett.* **2017**, 19, 6196.
26. *Remote Carboxylation of Aliphatic Hydrocarbons with Carbon Dioxide*. Julia-Hernandez, F.; Moragas, T.; **Cornella, J.**; Martin, R. *Nature* **2017**, 545, 84.
25. *Alkyl-(Hetero)Aryl Bond Formation via Decarboxylative Cross-Coupling: A Systematic Analysis*. Sandfort, F.; O'Neill, M. J.;\* **Cornella, J.**; Wimmer, L.; Baran, P. S. *Angew. Chem. Int. Ed.* **2017**, 56, 3319.
24. *Visible-Light-Promoted Atom Transfer Radical Cyclization of Unactivated Alkyl Iodides*. Y. Shen; **Cornella, J.**; F. Julia-Hernandez; Martin, R. *ACS Catal.* **2017**, 7, 409.
23. *Redox-Active Esters in Fe-catalyzed Cross-Coupling*. Toriyama, F.;\* **Cornella, J.**;\* Wimmer, L.; Chen, T.-G.; Dixon, D. D.; Creech, G.; Baran, P. S. *J. Am. Chem. Soc.* **2016**, 138, 11132.
22. *Nickel-catalyzed Cross-coupling of Redox-Active Esters with Boronic Acids*. Wang, J.; Qin, T.; Chen, T.-G.; Wimmer, L.; Edwards, J. T.; **Cornella, J.**; Vokits, B.; Shaw, S. A.; Baran, P. S. *Angew. Chem. Int. Ed.* **2016**, 55, 9676.
21. *A General Alkyl-Alkyl Cross-Coupling Enabled by Redox-Active Esters and Alkylzinc Reagents*. Qin, T.;\* **Cornella, J.**;\* Li, C.;\* Malins, L. R.; Edwards, J. T.; Kawamura, S.; Maxwell, B. D.; Eastgate, M. D.; Baran, P. S. *Science*. **2016**, 352, 801.
20. *Practical Ni-Catalyzed Aryl-Alkyl Cross-Coupling of Secondary Redox-Active Esters*. **Cornella, J.**;\* Edwards, J. T.;\* Qin, T.; Kawamura, S.; Wang, J.; Pan, C.-M.; Gianatassio, R.; Schmidt, M.; Eastgate, M. D.; Baran, P. S. *J. Am. Chem. Soc.* **2016**, 138, 2174.
19. *Ni-catalyzed Enantioselective C–C Bond Formation via C(sp<sup>2</sup>)–O Cleavage in Aryl Esters*. **Cornella, J.** Jackson, E. P.; Martin, R. *Angew. Chem. Int. Ed.* **2015**, 54, 4075.
18. *Ligand-controlled Regiodivergent Ni-catalyzed Reductive Carboxylation of Allyl Esters with CO<sub>2</sub>*. Moragas, T.;\* **Cornella, J.**;\* Martin, R. *J. Am. Chem. Soc.* **2014**, 136, 17702.
17. *The ortho-Substituent Effect on the Ag-catalysed Decarboxylation of Benzoic Acids*. Grainger, R.; **Cornella, J.**; Blakemore, D. C.; Larrosa, I.; Campanera, J.-M. *Chem.–Eur. J.* **2014**, 20, 16680.

16. Ni-catalyzed Carboxylation of Unactivated Primary Alkyl Bromides and Sulfonates with CO<sub>2</sub>. Liu, Y.; **Cornella, J.**; Martin, R. *J. Am. Chem. Soc.* **2014**, *136*, 11212.
15. Metal-catalyzed Activation of Ethers via C–O Bond Cleavage: A New Strategy for Molecular Diversity. **Cornella, J.**; Zarate, C.; Martin, R. *Chem. Soc. Rev.* **2014**, *43*, 8081.
14. Ni-catalyzed Reductive Cleavage of Methyl 3-Methoxy-2-Naphthoate. **Cornella, J.**; Zarate, C.; Martin, R. *Org. Synth.* **2014**, *91*, 60.
13. Ni-catalyzed Stereoselective Arylation of Inert C–O bonds at Low Temperatures. **Cornella, J.**; Martin, R. *Org. Lett.* **2013**, *15*, 6298.
12. A Combined Experimental and Theoretical Study on the Reductive Cleavage of Inert C–O Bonds with Silanes: Ruling out a Classical Ni(0)/Ni(II) Catalytic Couple and Evidence for Ni(I) Intermediates. **Cornella, J.**; Gomez-Bengoa, E.; Martin, R. *J. Am. Chem. Soc.* **2013**, *135*, 1997.
11. Nickel-Catalyzed Decarbonylative C–H Coupling Reactions: A Strategy for Preparing Bis(Heteroaryl) Backbones. Correa, A.; **Cornella, J.**; Martin, R. *Angew. Chem. Int. Ed.* **2013**, *52*, 2.
10. Selective Deuteration of (Hetero)aromatic Compounds via Deutero-decarboxylation of Carboxylic Acids. Grainger, R.; Nikmal, A.; **Cornella, J.**; Larrosa, I. *Org. Biomol. Chem.* **2012**, *10*, 3172.
9. Decarbonylative C–C Bond Forming Transformations of (Hetero)aromatic Carboxylic Acids. **Cornella, J.**; Larrosa, I. *Synthesis* **2012**, *44*, 653.
8. Carboxylic Acids as Traceless Directing Groups for Formal meta-Selective Direct Arylation. **Cornella, J.**; Righi, M.; Larrosa, I. *Angew. Chem. Int. Ed.* **2011**, *40*, 9429.
7. A Novel Mode of Reactivity for Gold(I): The Decarbonylative Activation of (Hetero)aromatic Carboxylic Acids. **Cornella, J.**; Rosillo-Lopez, M.; Larrosa, I. *Adv. Synth. Catal.* **2011**, *353*, 1359.
6. Stereodivergent Addition of 4-Silyloxy-1,2-Allenenes to Aldehydes. Sanchez, C.; Ariza, X.; **Cornella, J.**; Farras, J.; Garcia, J. *Chem.–Eur. J.* **2010**, *16*, 11535.
5. Decarbonylative Homocoupling of (Hetero)aromatic Carboxylic Acids. Cornella, J.; Lahlali, H.; Larrosa, I. *Chem. Commun.* **2010**, *46*, 8276.
4. Silver-Catalyzed Protodecarboxylation of Heteroaromatic Carboxylic Acids. Lu, P. F.; Sanchez, C.; **Cornella, J.**; Larrosa, I. *Org. Lett.* **2009**, *11*, 5710.
3. Intermolecular Decarbonylative Direct C-3 Arylation of Indoles with Benzoic Acids. **Cornella, J.**; Lu, P. F.; Larrosa, I. *Org. Lett.* **2009**, *11*, 5506.
2. Silver-catalysed Protodecarboxylation of ortho-Substituted Benzoic Acids. **Cornella, J.**; Sanchez, C.; Banawa, D.; Larrosa, I. *Chem. Commun.* **2009**, *46*, 7176.
1. Silver Stereocontrolled Synthesis of Highly Functionalized Quaternary Carbon Centers: A Route to alpha-Substituted Serines. Ariza, X.; **Cornella, J.**; Font-Bardia, M.; Garcia, J.; Ortiz, J.; Sanchez, C.; Solans, X. *Angew. Chem. Int. Ed.* **2009**, *48*, 4202.

#### Patents

1. Carboxylation of saturated and unsaturated aliphatic chains using CO<sub>2</sub>. Julia-Hernandez, F.; **Cornella, J.**; Martin, R. **2016**, EP16382336.