

- 1) Asensio, J.; Tricard, S.; Coppel, Y.; Andres, R.; Chaudret, B.; de Jesus, E., Knight Shift in C-13 NMR Resonances Confirms the Coordination of N-Heterocyclic Carbene Ligands to Water-Soluble Palladium Nanoparticles. *Angewandte Chemie-International Edition* **2017**, *56* (3), 865-869.
- 2) Asensio, J.; Tricard, S.; Coppel, Y.; Andres, R.; Chaudret, B.; de Jesus, E., Synthesis of Water-Soluble Palladium Nanoparticles Stabilized by Sulfonated N-Heterocyclic Carbenes. *Chemistry-a European Journal* **2017**, *23* (54), 13435-13444.
- 3) Baquero, E.; Virieux, H.; Swain, R.; Gillet, A.; Cros-Gagneux, A.; Coppel, Y.; Chaudret, B.; Nayral, C.; Delpech, F., Synthesis of Oxide-Free InP Quantum Dots: Surface Control and H-2-Assisted Growth. *Chemistry of Materials* **2017**, *29* (22), 9623-9627.
- 4) Branca, M.; Corp, K.; Ciuculescu-Pradines, D.; Coppel, Y.; Lecante, P.; Amiens, C., Insights into the chemistry of bismuth nanoparticles. *New Journal of Chemistry* **2017**, *41* (13), 5960-5966.
- 5) Cano, I.; Martinez-Prieto, L.; Fazzini, P.; Coppel, Y.; Chaudret, B.; van Leeuwen, P., Characterization of secondary phosphine oxide ligands on the surface of iridium nanoparticles. *Physical Chemistry Chemical Physics* **2017**, *19* (32), 21655-21662.
- 6) Gharbi, K.; Salles, F.; Mathieu, P.; Amiens, C.; Colliere, V.; Coppel, Y.; Philippot, K.; Fontaine, L.; Montembault, V.; Smiri, L.; Ciuculescu-Pradines, D., Alkyl phosphonic acid-based ligands as tools for converting hydrophobic iron nanoparticles into water soluble iron-iron oxide core-shell nanoparticles. *New Journal of Chemistry* **2017**, *41* (20), 11898-11905.
- 7) Driche EH, Sabaou N, Bijani C, Zitouni A, Pont F, Mathieu F, Badji B. " Streptomyces sp. AT37 isolated from a Saharan soil produces a furanone derivative active against multidrug-resistant Staphylococcus aureus". *World J Microbiol Biotechnol.* **2017** (6):105.
- 8) Martinez-Prieto, L.; Cano, I.; Marquez, A.; Baquero, E.; Tricard, S.; Cusinato, L.; del Rosal, I.; Poteau, R.; Coppel, Y.; Philippot, K.; Chaudret, B.; Campora, J.; van Leeuwen, P., Zwitterionic amidinates as effective ligands for platinum nanoparticle hydrogenation catalysts. *Chemical Science* **2017**, *8* (4), 2931-2941.
- 9) Martinez-Prieto, L.; Rakers, L.; Lopez-Vinasco, A.; Cano, I.; Coppel, Y.; Philippot, K.; Glorius, F.; Chaudret, B.; van Leeuwen, P., Soluble Platinum Nanoparticles Ligated by Long-Chain N-Heterocyclic Carbenes as Catalysts. *Chemistry-a European Journal* **2017**, *23* (52), 12779-12786.
- 10) Mouchaham, G.; Roques, N.; Khodja, W.; Duhayon, C.; Coppel, Y.; Brandes, S.; Fodor, T.; Meyer, M.; Sutter, J., Hydrogen-Bonded Open-Framework with Pyridyl-Decorated Channels: Straightforward Preparation and Insight into Its Affinity for Acidic Molecules in Solution. *Chemistry-a European Journal* **2017**, *23* (49), 11818-11826.
- 11) Cécile Barthes, Christian Bijani, Noël Lugan, and Yves Canac. " A Palladium(II) Complex of a C 4 Chelating Bis(NHC) Diphosphonium Bis(ylide) Ligand". *Organometallic.* **2017** ;37(5):673-678.
- 12) Trinh, T.; Nierengarten, I.; Ben Aziza, H.; Meichsner, E.; Holler, M.; Chesse, M.; Abidi, R.; Bijani, C.; Coppel, Y.; Maisonhaute, E.; Delavaux-Nicot, B.; Nierengarten, J., Coordination-Driven Folding in Multi-Zn-II-Porphyrin Arrays Constructed on a Pillar[5]arene Scaffold. *Chemistry-a European Journal* **2017**, *23* (46), 11011-11021.
- 13) Cynthia A. Cuevas-Chávez, Julio Zamora-Moreno, Miguel A. Muñoz-Hernández, Christian Bijani, Sylviane Sabo-Etienne, Virginia Montiel-Palma. " Stabilization of Trans Disilyl Coordination at Square-Planar Platinum Complexes". *Organometallic.* **2017** ; 37(5):720-728.
- 14) Corona-Gonzalez, M.; Zamora-Moreno, J.; Cuevas-Chavez, C.; Rufino-Felipe, E.; Mothes-Martin, E.; Coppel, Y.; Munoz-Hernandez, M.; Vendier, L.; Flores-Alamo, M.; Grellier, M.; Sylviane, S.; Montiel-Palma, V., A family of rhodium and iridium complexes with semirigid benzylsilyl phosphines: from bidentate to tetradentate coordination modes. *Dalton Transactions* **2017**, *46* (27), 8827-8838..
- 15) Baquero, E. A.; Tricard, S.; Coppel, Y.; Flores, J. C.; Chaudret, B.; de Jesus, E., Water-soluble platinum nanoparticles stabilized by sulfonated N-heterocyclic carbenes: influence of the synthetic approach. *Dalton Transactions* **2018**, *47* (12), 4093-4104.

- 16) Marie-Noëlle Paludetto, Christian Bijani, Florent Puisset, Vania Bernardes-Genisson, Cécile Arellano, Anne Robert. "Metalloporphyrin-catalyzed oxidation of sunitinib and pazopanib, two anticancer tyrosine kinase inhibitors: Evidence for new potentially toxic metabolites". *J. Med. Chem.*, **2018**, 61(17), 7849–7860.
- 17) Martin-Mothes E, Puig E, Vendier L, Bijani C, Grellier M, Bontemps S. "Ortho-Phenyl dialkylphosphonium sulfonate compounds: two rotamers in equilibrium". *Dalton Trans.*, **2018**, 47, 10139-10146.
- 18) Martin-Mothes E, Puig E, Vendier L, Bijani C, Grellier M, Bontemps S. "Ortho-Phenyl dialkylphosphonium sulfonate compounds: two rotamers in equilibrium". *Dalton Trans.*, **2018**, 47, 10139-10146.
- 19) Cure, J.; Piettre, K.; Sournia-Saquet, A.; Coppel, Y.; Esvan, J.; Chaudret, B.; Fau, P., A Novel Method for the Metallization of 3D Silicon Induced by Metastable Copper Nanoparticles. *ACS applied materials & interfaces* **2018**, 10 (38), 32838-32848.
- 20) Gimeno N, Bijani C, Gouygou M, Volkman J. "Coordination-driven self-assembly of chiral palladium(II)-based supramolecular triangle structures". *New J. Chem.*, **2018**, 42, 17412-17419.
- 21) Khebizi N, Boudjella H, Bijani C, Bouras N, Klenk HP, Pont F, Mathieu F, Sabaou N. "Oligomycins A and E, major bioactive secondary metabolites produced by *Streptomyces* sp. strain HG29 isolated from a Saharan soil". *J Mycol Med.* **2018** ;28(1):150-160.
- 22) Spataro, G.; Champouret, Y.; Florian, P.; Coppel, Y.; Kahn, M. L., Multinuclear solid-state NMR study: a powerful tool for understanding the structure of ZnO hybrid nanoparticles. *Physical Chemistry Chemical Physics* **2018**, 20 (18), 12413-12421.
- 23) Weixin Zhang, Meijie Huang, Christian Bijani, Yan Liu, Anne Robert, Bernard Meunier. "Synthesis and characterization of copper-specific tetradentate ligands as potential treatment for Alzheimer's disease". *Comptes Rendus Chimie.* **2018** ; 21(5), 475-483.
- 24) Tessier, M. D.; Baquero, E. A.; Dupont, D.; Grigel, V.; Bladt, E.; Bals, S.; Coppel, Y.; Hens, Z.; Nayral, C.; Delpech, F., Interfacial Oxidation and Photoluminescence of InP-Based Core/Shell Quantum Dots. *Chemistry of Materials* **2018**, 30 (19), 6877-6883.
- 25) Guerre M, Folgado E, Mimouni N, Collière V, Bijani C, Moineau-Chane Ching K, Caminade A-M, Ladmiral V, Améduri B, Ouali A. Study of the non-covalent coating of graphene-coated cobalt magnetic nanoparticles with pyrene-tagged dendritic poly(vinylidene fluoride). *Chempluschem*, **2018**, 84(1).
- 26) Julien Aujard-Catot, Michel Nguyen, Christian Bijani, Geneviève Pratviel and Colin Bonduelle "Cd<sup>2+</sup> coordination: an efficient structuring switch for polypeptide polymers" *Polym. Chem.*, **2018**, 9, 4100-4107
- 27) Zhao, Z.; Coppel, Y.; Fitremann, J.; Fau, P.; Roux, C.; Lepetit, C.; Lecante, P.; Marty, J.-D.; Mingotaud, C.; Kahn, M. L., Mixing Time between Organometallic Precursor and Ligand: A Key Parameter Controlling ZnO Nanoparticle Size and Shape and Processable Hybrid Materials. *Chemistry of Materials* **2018**, 30 (24), 8959-8967.
- 28) El Hankari, S.; Katir, N.; Colliere, V.; Coppel, Y.; Bousmina, M.; Pierre Majoral, J.; El Kadib, A., Urea-assisted cooperative assembly of phosphorus dendrimer-zinc oxide hybrid nanostructures. *New Journal of Chemistry* **2019**, 43 (5), 2141-2147.
- 29) Folgado, E., Guerre, M., Mimouni, N., Collière, V., Bijani, C., Moineau-Chane Ching, K. I., Caminade, A. - M., Ladmiral, V., Améduri, B., & Ouali, A. "π-Stacking interactions of graphene-coated cobalt magnetic nanoparticles with pyrene-tagged dendritic poly(vinylidene fluoride)". *ChemPlusChem*, **2019**, 84(1), 78–84.
- 30) Gonzalez-Gomez, R.; Cusinato, L.; Bijani, C.; Coppel, Y.; Lecante, P.; Amiens, C.; Del Rosal, I.; Philippot, K.; Poteau, R., Carboxylic acid-capped ruthenium nanoparticles: experimental and theoretical case study with ethanoic acid. *Nanoscale* **2019**.
- 31) Merrouche, R.; Yekkour, A.; Coppel, Y.; Bouras, N.; Lamari, L.; Zitouni, A.; Mathieu, F.; Lebrihi, A.; Sabaou, N., Effective biosynthesis of benzoyl-pyrrothine dithiopyrrolone antibiotic by cinnamic acid-precursor addition in culture of *Saccharothrix algeriensis* NRRL B-24137. *Letters in Applied Microbiology* **2019**, 68 (2), 165-172.

- 32) Semlali, S.; Cormary, B.; De Marco, M. L.; Majimel, J.; Saquet, A.; Coppel, Y.; Gonidec, M.; Rosa, P.; Drisko, G. L., Effect of solvent on silicon nanoparticle formation and size: a mechanistic study. *Nanoscale* **2019**, *11* (11), 4696-4700.
- 33) Zheng, Z.; Mounsamy, M.; Lauth-de Viguier, N.; Coppel, Y.; Harrisson, S.; Destarac, M.; Mingotaud, C.; Kahn, M. L.; Marty, J.-D., Luminescent zinc oxide nanoparticles: from stabilization to slow digestion depending on the nature of polymer coating. *Polymer Chemistry* **2019**, *10* (1), 145-154.
- 34) Abdelhadi Lahoum, Nasserine Sabaou, Christian Bijani, Noureddine Bouras, Frédéric Pont, Selma P Snini, Florence Mathieu “Antimicrobial activities of novel bipyridine compounds produced by a new strain of *Saccharothrix* isolated from Saharan soil” Saudi Pharmaceutical Society **2019**, *27* (1): 56-65
- 35) Bouzouita, D.; Lippens, G.; Baquero, E. A.; Fazzini, P. F.; Pieters, G.; Coppel, Y.; Lecante, P.; Tricard, S.; Martinez-Prieto, L. M.; Chaudret, B., Tuning the catalytic activity and selectivity of water-soluble bimetallic RuPt nanoparticles by modifying their surface metal distribution. *Nanoscale* **2019**, *11* (35), 16544-16552. DOI: 10.1039/c9nr04149d
- 36) Merrouche, R.; Yekkour, A.; Coppel, Y.; Bouras, N.; Zitouni, A.; Lebrihi, A.; Mathieu, F.; Sabaou, N. A new dithiolopyrrolone antibiotic triggered by a long fermentation of *Saccharothrix algeriensis* NRRL B-24137 in sorbic acid-amended medium. *Letters in Applied Microbiology* **2019**, *69* (4), 294-301. DOI: 10.1111/lam.13207
- 37) Tata S, Aouiche A, Bijani C, Bouras N, Pont F, Mathieu F, and Sabaou N. “Mzabimycins A and B, novel intracellular angucycline antibiotics produced by *Streptomyces* sp. PAL114 in synthetic medium containing L-tryptophan” Saudi Pharm J. **2019**, *27*(7): 907–913.
- 38) Mathieu, P.; Coppel, Y.; Respaud, M.; Nguyen, Q. T.; Boutry, S.; Laurent, S.; Stanicki, D.; Henoumont, C.; Novio, F.; Lorenzo, J.; Montpeyo, D.; Amiens, C., Silica Coated Iron/Iron Oxide Nanoparticles as a Nano-Platform for T-2 Weighted Magnetic Resonance Imaging. *Molecules* **2019**, *24* (24) , 4629. DOI: 10.3390/molecules24244629
- 39) Ruffel, L.; Soulie, J.; Coppel, Y.; Roblin, P.; Brouillet, F.; Frances, C.; Tourbin, M., Ibuprofen loading into mesoporous silica nanoparticles using Co-Spray drying: A multi-scale study. *Microporous and Mesoporous Materials* **2020**, *291*, 109689. DOI: 10.1016/j.micromeso.2019.109689
- 40) Clement, M.; Abdellah, I.; Ray, P.; Martini, C.; Coppel, Y.; Remita, H.; Lampre, I.; Huc, V., Synthesis and NMR study of trimethylphosphine gold(i)-appended calix[8]arenes as precursors of gold nanoparticles. *Inorganic Chemistry Frontiers* **2020**, *7* (4), 953-960. DOI: 10.1039/c9qi01475
- 41) Champouret, Y.; Spataro, G.; Coppel, Y.; Gauffre, F.; Kahn, M. L., Nanocrystal-ligand interactions deciphered: the influence of HSAB and pK(a) in the case of luminescent ZnO. *Nanoscale Advances* **2020**, *2* (3), 1046-1053. DOI: 10.1039/c9na00769e
- 42) Morales, E. M.; Coppel, Y.; Lecante, P.; del Rosal, I.; Poteau, R.; Esvan, J.; Sutra, P.; Philippot, K.; Igau, A. When organophosphorus ruthenium complexes covalently bind to ruthenium nanoparticles to form nanoscale hybrid material *Chemical Communications* **2020**, *56* (29), 4059-4062. DOI: 10.1039/d0cc00442a
- 43) Manai, G.; Houimel, H.; Rigoulet, M.; Gillet, A.; Fazzini, P.F.; Ibarra, A.; Balor, S.; Roblin, P.; Esvan, J.; Coppel, Y.; Chaudret, B.; Bonduelle, C.; Tricard, S., Bidimensional lamellar assembly by coordination of peptidic homopolymers to platinum nanoparticles. *Nature Communications* **2020**, *11* (1), 2051. DOI: 10.1038/s41467-020-15810-y
- 44) González-Méndez, I., Hameau, A., Laurent, R., Bijani C., Bourdon V., Caminade A. - M., Rivera E., & Moineau-Chane Ching, K. I.  $\beta$ -cyclodextrin PAMAM dendrimer: How to overcome the tumbling process for getting fully available host cavities. *Eur. J. Org. Chem.*, **2020**, (9), 1114–1121.
- 45) Soria, L.; Sklorz, J.; Coppel, Y.; Roblin, P.; Mezailles, N.; Gomez, M., Nanoscale Metal Phosphide Phase Segregation to Bi/P Core/Shell Structure. Reactivity as a Source of Elemental Phosphorus. *Chemistry of Materials* **2020**, *32* (10), 4213-4222. DOI: 10.1021/acs.chemmater.0c00478
- 46) Bouammali A., Bijani C., Vendier L., Etienne M., & Simonneau A. Reaction of methyllithium with group 6 phosphine dinitrogen complexes. *Eur. J. Inorg. Chem.*, **2020** (15-16), 1423–1427.

- 47) Reiners, M.; Baabe, D.; Muenster, K.; Zaretzke, MK.; Freytag, M.; Jones, P. G.; Coppel, Y.; Bontemps, S.; del Rosal, I.; Maron, L.; Walter, M. D., NH<sub>3</sub> formation from N-2 and H-2 mediated by molecular tri-iron complexes. *Nature Chemistry* **2020**, *12* (8), 740-746. DOI :10.1038/s41557-020-0483-7
- 48) Merrouche, R.; Yekkour, A.; Coppel, Y.; Bouras, N.; Zitouni, A.; Mathieu, F.; Sabaou, N. Saccharothrix algeriensis NRRL B-24137, the first non-Streptomyces actinobacterium, produces holomycin after cystine feeding. *Archives of Microbiology* **2020**, *202* (9), 2509-2516. DOI: 10.1007/s00203-020-01971-3
- 49) Palazzolo, A.; Naret, T.; Daniel-Bertrand, M.; Buisson, DA.; Tricard, S.; Lesot, P.; Coppel, Y.; Chaudret, B.; Feuillastre, S.; Pieters, G., Tuning the Reactivity of a Heterogeneous Catalyst using N-Heterocyclic Carbene Ligands for C-H Activation Reactions. *Angewandte Chemie-International Edition* **2020**, *59* (47), 20879-20884. DOI :10.1002/anie.202009258
- 50) Zhang C, Fortin P-Y, Barnoin G, Qin X, Wang X, Alvarez AF, Bijani C, Maddelein M-L, Hemmert C, Cuvillier O, Gornitzka H Artemisinin-Derivative-NHC-gold(I)-Hybrid with Enhanced Cytotoxic Activity Through Inhibiting NRF2 Transcriptional Activity. *Angew. Chem., Int. Ed.*, **2020**, *59*(29), 12062–12068.
- 51) Le Grill, S.; Soulie, J.; Coppel, Y.; Roblin, P.; Lecante, P.; Marsan, O.; Charvillat, C.; Bertrand, G.; Rey, C.; Brouillet, F., Spray-drying-derived amorphous calcium phosphate: a multi-scale characterization. *Journal of Materials Science* **2020**, *56* (2), 1189-1202. DOI: 10.1007/s10853-020-05396-7
- 52) Eyser, T., To, T. H., Egwu, C., Paloque, L., Nguyen, M., Hamouy, A., Stigliani, J. - L., Bijani, C., Augereau, J. - M., Joly, J. - P., Portela, J., Havot, J., Marque, S. R. A., Boissier, J., Robert, A., Benoit-Vical, F., & Audran, G. Alkoxyamines designed as potential drugs against Plasmodium and Schistosoma parasites. *Molecules*, **2020**, *25*(17), 3838/1–23.
- 53) Spataro, G.; Champouret, Y.; Coppel, Y.; Kahn, M. L., Prominence of the Instability of a Stabilizing Agent in the Changes in Physical State of a Hybrid Nanomaterial, *ChemPhysChem*, **2020**, *21* (21), 2454-2459. DOI: 10.1002/cphc.202000584
- 54) Ayyappan, R.; Coppel, Y.; Vendier, L.; Ghosh, S.; Sabo-Etienne, S.; Bontemps, S., Synthesis and reactivity of phosphine borohydride compounds. *Chemical Communications* **2021**, *57* (3), 375-378. DOI: 10.1039/d0cc07072f
- 55) Coppel, Y.; Prigent, Y.; Gregoire, G. Characterization of hydrogenated dentin components by advanced H-1 solid-state NMR experiments, *Acta Biomaterial* **2021**, *120*, 156-166. DOI: 10.1016/j.actbio.2020.08.022
- 56) Nasrallah, H. O.; Min, Y.; Lerayer, E.; Nguyen, TA.; Poinot, D.; Roger, J.; Brandes, S.; Heintz, O.; Roblin, P.; Jolibois, F.; Poteau, R.; Coppel, Y.; Kahn, M. L.; Gerber, I. C.; Axet, M. R.; Serp, P.; Hierso, JC., Nanocatalysts for High Selectivity Enyne Cyclization: Oxidative Surface Reorganization of Gold Sub-2-nm Nanoparticle Networks, *JACS Au* **2021**, *1* (2), 187-200. DOI:10.1021/jacsau.0c00062
- 57) Moraru, IT.; Martinez-Prieto, L. M.; Coppel, Y.; Chaudret, B.; Cusinato, L.; del Rosal, I.; Poteau, R., A combined theoretical/experimental study highlighting the formation of carbides on Ru nanoparticles during CO hydrogenation, *Nanoscale* **2021**, *13* (14), 6902-6915. DOI: 10.1039/d0nr08735a
- 58) Wang, Y.; Coppel, Y., Lepetit, C.; Marty, JD.; Mingotaud, C.; Kahn, ML, Anisotropic growth of ZnO nanoparticles driven by the structure of amine surfactants: the role of surface dynamics in nanocrystal growth. *Nanoscale Advances* **2021**, *3* (21), 6088-6099. DOI:10.1039/d1na00566a
- 59) Cabanes, J., Odnoroh, M., Duhayon, C., Bijani, C., Sournia-Saquet, A., Polia, R., & Labande, A. Oxidation-promoted synthesis of ferrocenyl planar chiral rhodium(III) complexes for C–H functionalization catalysis. *Mendeleev Commun.*, **2021**, *31*(5), 620–623.
- 60) Sambou, S. S.; Hromov, R.; Ruzhylo, I.; Wang, H.; Allandrieu, A.; Sabatier, C.; Coppel, Y.; Daran, JC.; Gayet, F.; Labande, A.; Manoury, E.; Poli, R., Amphiphilic polymeric nanoreactors containing Rh(I)-NHC complexes for the aqueous biphasic hydrogenation of alkenes. *Catalysis Science & Technology* **2021**, *11* (20), 6811-6824. DOI: 10.1039/d1cy00554e