

List of publications – Dr. Nicolas Kaeffer

2020

- **Kaeffer, N.**, Mance, D., Copéret, C. (2020). N-Heterocyclic Carbene Coordination to Surface Copper Sites in Selective Semihydrogenation Catalysts from Solid-State NMR Spectroscopy *Angewandte Chemie International Edition* <https://doi.org/10.1002/ange.202006209>
- Lebedev, D., Ezhov, R., Heras-Domingo, J., Comas-Vives, J., Comas-Vives, A., **Kaeffer, N.**, Willinger, M., Solans-Monfort, X., Huang, X., Pushkar, Y., Copéret, C. (2020). Atomically Dispersed Iridium on Indium Tin Oxide Efficiently Catalyzes Water Oxidation *ACS Central Science* <https://doi.org/10.1021/acscentsci.0c00604>
- Mavrokefalos, C.K., **Kaeffer, N.**, Liu, H.-J., Krumeich, F., Copéret, C. (2020). Small and Narrowly Distributed Copper Nanoparticles Supported on Carbon Prepared by Surface Organometallic Chemistry for Selective Hydrogenation and CO₂ Electroconversion Processes *ChemCatChem* 12(1), 305-313. <https://doi.org/10.1002/cctc.201901414>

2019

- Chandrasekaran, S., **Kaeffer, N.**, Cagnon, L., Aldakov, D., Fize, J., Nonglaton, G., Baleras, F., Mailley, P., Artero, V. (2019). A robust ALD-protected silicon-based hybrid photoelectrode for hydrogen evolution under aqueous conditions *Chemical Science* 10(16), 4469-4475. <https://doi.org/10.1039/c8sc05006f>

2018

- **Kaeffer, N.**, Larmier, K., Fedorov, A., Copéret, C. (2018). Origin of ligand-driven selectivity in alkyne semihydrogenation over silica-supported copper nanoparticles *Journal of Catalysis* 364, 437-445. <https://doi.org/10.1016/j.jcat.2018.06.006>
- **Kaeffer, N.**, Windle, C.D., Brisse, R., Gablin, C., Leonard, D., Jusselme, B., Chavarot-Kerlidou, M., Artero, V. (2018). Insights into the mechanism and aging of a noble-metal free H₂-evolving dye-sensitized photocathode *Chemical Science* 9(32), 6721-6738. <https://doi.org/10.1039/c8sc00899j>
- **Kaeffer, N.**, Liu, H.-J., Lo, H.-K., Fedorov, A., Copéret, C. (2018). An N-heterocyclic carbene ligand promotes highly selective alkyne semihydrogenation with copper nanoparticles supported on passivated silica *Chemical Science* 9(24), 5366-5371. <https://doi.org/10.1039/c8sc01924j>
- Lebedev, D., Pineda-Galvan, Y., Tokimaru, Y., Fedorov, A., **Kaeffer, N.**, Copéret, C., Pushkar, Y. (2018). The Key Ru^V=O Intermediate of Site-Isolated Mononuclear Water Oxidation Catalyst Detected by *in Situ* X-ray Absorption Spectroscopy *Journal of the American Chemical Society* 140(1), 451-458. <https://doi.org/10.1021/jacs.7b11388>

2016

- Coutard, N., **Kaeffer, N.**, Artero, V. (2016). Molecular engineered nanomaterials for catalytic hydrogen evolution and oxidation *Chemical Communications* 52(95), 13728-13748. <https://doi.org/10.1039/c6cc06311j>

- Sahara, G., Kumagai, H., Maeda, K., **Kaeffer, N.**, Artero, V., Higashi, M., Abe, R., Ishitani, O. (2016). Photoelectrochemical Reduction of CO₂ Coupled to Water Oxidation Using a Photocathode with a Ru(II)–Re(I) Complex Photocatalyst and a CoO_x/TaON Photoanode *Journal of the American Chemical Society* 138(42), 14152-14158. <https://doi.org/10.1021/jacs.6b09212>
- Wood, C.J., Summers, G.H., Clark, C.A., **Kaeffer, N.**, Braeutigam, M., Carbone, L.R., D’Amario, L., Fan, K., Farré, Y., Narbey, S., Oswald, F., Stevens, L.A., Parmenter, C.D.J., Fay, M.W., La Torre, A., Snape, C.E., Dietzek, B., Dini, D., Hammarström, L., Pellegrin, Y., Odobek, F., Sun, L., Artero, V., Gibson, E.A. (2016). A comprehensive comparison of dye-sensitized NiO photocathodes for solar energy conversion *Physical Chemistry Chemical Physics* 18(16), 10727-10738. <https://doi.org/10.1039/c5cp05326a>
- **Kaeffer, N.**, Morozan, A., Fize, J., Martinez, E., Guetaz, L., Artero, V. (2016). The Dark Side of Molecular Catalysis: Diimine–Dioxime Cobalt Complexes Are Not the Actual Hydrogen Evolution Electrocatalyst in Acidic Aqueous Solutions *ACS Catalysis* 6(6), 3727-3737. <https://doi.org/10.1021/acscatal.6b00378>
- **Kaeffer, N.**, Massin, J., Lebrun, C., Renault, O., Chavarot-Kerlidou, M., Artero, V. (2016). Covalent Design for Dye-Sensitized H₂-Evolving Photocathodes Based on a Cobalt Diimine–Dioxime Catalyst *Journal of the American Chemical Society* 138(38), 12308-12311. <https://doi.org/10.1021/jacs.6b05865>

2015

- **Kaeffer, N.**, Morozan, A., Artero, V. (2015). Oxygen Tolerance of a Molecular Engineered Cathode for Hydrogen Evolution Based on a Cobalt Diimine–Dioxime Catalyst *The Journal of Physical Chemistry B* 119(43), 13707-13713. <https://doi.org/10.1021/acs.jpcc.5b03136>
- Massin, J., Bräutigam, M., **Kaeffer, N.**, Queyriaux, N., Field, M.J., Schacher, F.H., Popp, J., Chavarot-Kerlidou, M., Dietzek, B., Artero, V. (2015). Dye-sensitized PS-*b*-P2VP-templated nickel oxide films for photoelectrochemical applications *Interface Focus* 5(3), 20140083. <https://doi.org/10.1098/rsfs.2014.0083>
- **Kaeffer, N.**, Chavarot-Kerlidou, M., Artero, V. (2015). Hydrogen Evolution Catalyzed by Cobalt Diimine–Dioxime Complexes *Accounts of Chemical Research* 48(5), 1286-1295. <https://doi.org/10.1021/acs.accounts.5b00058>
- Queyriaux, N., **Kaeffer, N.**, Morozan, A., Chavarot-Kerlidou, M., Artero, V. (2015). Molecular cathode and photocathode materials for hydrogen evolution in photoelectrochemical devices *Journal of Photochemistry and Photobiology C: Photochemistry Reviews* 25, 90-105. <https://doi.org/10.1016/j.jphotochemrev.2015.08.001>