

Work Published

- 28) **The CO₂ Tree: The Potential for Carbon Dioxide Utilization Pathways**
H. O. LeClerc, H. C. Erythropel, A. Backhaus, D. S. Lee, D. R. Judd, M. M. Paulsen, M. Ishii, A. Long, L. Ratjen, G. Gonsalves Bertho, C. Deetman, Y. Du, M. K. M. Lane, P. V. Petrovic, A. T. Champlin, A. Bordet, **N. Kaeffer**, G. Kemper, J. B. Zimmerman, W. Leitner*, P. T. Anastas*, *ACS Sust. Chem. Eng.*, **2025**, *13*, 5–29.
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- 27) **Electrochemical Aldehyde Hydrogenation: Probing the Inner-Sphere Strategy with Nickel-Bipyridine Complexes**
G. Durin, M. Lee, M. A. Pogany, C. Kahl, T. Weyhermüller, W. Leitner, **N. Kaeffer***, *Chem. Comm.*, **2025**, *61*, 520–523.
DOI: 10.1039/d4cc04050c
- 26) **Understanding Ligand Effects on Bielectronic Transitions: Chemo- and Electroreduction of Rhodium Bis(Diphosphine) Complexes to Low Oxidation States**
A.-C. Kick, T. Weyhermüller, M. Hölscher, **N. Kaeffer***, W. Leitner*, *Angew. Chem. Int. Ed.*, **2024**, e202408356.
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- 25) **Activated Mn-MACHO Complexes Form Stable CO₂ Adducts**
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- 24) **Electrocatalytic Hydrogenation of Unsaturated Organic Compounds with Molecular Complexes: Mechanistic Views**
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- 23) **Hydride-free Hydrogenation: Unraveling the Mechanism of Electrocatalytic Alkyne Semihydrogenation by Nickel-Bipyridine Complexes**
G. Durin, M.-Y. Lee, M. A. Pogany, T. Weyhermüller, **N. Kaeffer***, W. Leitner, *J. Am. Chem. Soc.*, **2023**, *145*, 17103–17111.
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- 22) **Electrocatalytic Hydrogenation of Alkenes with Pd/carbon Nanotubes at an Oil-Water Interface**
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- 21) **Speciation and Structures in Pt Surface Sites Stabilized by N-Heterocyclic Carbene Ligands Revealed by Dynamic Nuclear Polarization Enhanced Indirectly Detected ¹⁹⁵Pt NMR Spectroscopic Signatures and Fingerprint Analysis**
Z. Wang, L. A. Völker, T. C. Robinson, **N. Kaeffer**, G. Menzildjian, R. Jabbour, A. Venkatesh, D. Gajan, A. J. Rossini,* C. Copéret,* A. Lesage*, *J. Am. Chem. Soc.*, **2022**, *144*, 21530–21543.
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- 20) **Electrocatalysis with Molecular Transition-Metal Complexes for Reductive Organic Synthesis**
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- 18) **Systematic Variation of 3d Metal Centers in a Redox-Innocent Ligand Environment: Structures, Electrochemical Properties, and Carbon Dioxide Activation**
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- 17) **N-Heterocyclic Carbene Coordination to Surface Copper Sites in Selective Semihydrogenation Catalysts from Solid-State NMR Spectroscopy**
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- 16) **Atomically Dispersed Iridium on Indium Tin Oxide Efficiently Catalyzes Water Oxidation**
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- 15) **Small and Narrowly Distributed Copper Nanoparticles Supported on Carbon Prepared by Surface Organometallic Chemistry for Selective Hydrogenation and CO₂ Electroconversion Processes**
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 - 11) **An N-Heterocyclic Carbene Ligand Renders Copper Nanoparticles Supported on Passivated Silica Highly Selective in Alkyne Semihydrogenation**
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 - 10) **The Key Ru^V=O Intermediate of Site-Isolated Mononuclear Water Oxidation Catalyst Detected by In-Situ X-Ray Absorption Spectroscopy**
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 - 9) **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**
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 - 6) **The Dark Side of Molecular Catalysis: Diimine-Dioxime Cobalt Complexes are not the Actual Hydrogen Evolution Electrocatalyst in Acidic Aqueous Solutions**
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 - 5) **A Comprehensive Comparison of Dye-Sensitized NiO Photocathodes for Solar Energy Conversion**
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