LIST OF PUBLICATIONS (a star marks corresponding author and joint corresponding author papers)

[37] P. Coburger,* D. Zuber, C. Schweinzer, M.Scharnhölz, Phosphonium-substituted Diphosphaindenylide (PPI): Exploration of Biradical Character and Ligand Properties, *Chem. Eur. J.* **2023**, e202302970.

[36] P. Coburger,* Redox-chemistry of Pyramidanes: A DFT Study, *Eur. J. Inorg. Chem.* **2020**, e202300596 (part of the collection "Inorganic Reaction Mechnisms").

[35] N. Willeit, W. Klein, **P. Coburger,** D. E. Fritz-Langhals, Th. Fässler, Functionalised [Ge_9Ni] Clusters as Homogeneous Single-Site Catalysts for Olefin Isomerisation Reactions, *ChemCatChem* **2023**, e202301200.

[34] P. Coburger,* C. Schweinzer, Z. Li, H. Grützmacher, Reversible Single Electron Redox Steps Convert Polycycles with a C_3P_3 Core to a Planar Triphosphinine, *Angew. Chem. Int. Ed.* **2023**, *62*, e2022145148 (Hot Paper "Redox Chemistry", shared corresponding author with H. Grützmacher).

[33] T. Görlich, **P. Coburger**, E. Yang, J. Goicoechea, H. Grützmacher, C. Müller, The Chemistry of the Cyaphide Ion, *Angew. Chem. Int. Ed.* **2023**, *62*, e202217749.

[32] M. Scharnhölz, **P. Coburger,*** H. Beer, J. Bresien, A. Schulz and H. Grützmacher, A comparative study of biradicaloids as ligands in iron tetracarbonyl complexes, *Arkivoc* **2022**, part iii, 327 – 338.

[31] P. Coburger,* F. Masero, J. Bösken, V. Mougel, H. Grützmacher, A Germapyramidane Switches Between 3D Cluster and 2D Cyclic Structures in Single-Electron Steps, *Angew. Chem. Int. Ed.* **2022**, *61*, e202211749. (Hot Paper "Main-group chemistry", joint corresponding author with V. Mougel and H. Grützmacher).

[30] M. T. Scharnhölz, **P. Coburger,*** L. Gravogl, D. Klose, J. J. Gamboa-Carballo, G. Le Corre, J. Bösken, C. Schweinzer, D. Thöny, K. Meyer, Z. Li, H. Grützmacher, Bis(imidazolium)-1,3-diphosphete-diide: A Building Block for FeC_2P_2 Complexes and Clusters, *Angew. Chem. Int. Ed.* **2022**, *61*, e202205371. (joint corresponding author with H. Grützmacher).

[29] H. Jayaprakash, **P. Coburger**, M. Wörle, A. Togni, H. Grützmacher, Recyclable Mn(I) Catalysts for Base-Free Asymmetric Hydrogenation: Mechanistic, DFT and Catalytic Studies, *Chem. Eur. J.* **2022**, *28*, e202201522.

[28] J. Oswald, M. T. Scharnhölz, **P. Coburger**, H. Beer, J. Bresien, A. Schulz, H. Grützmacher, Insertion of Ruthenium into an inorganic, cyclic biradicaloid, *Z. Anorg. Allg. Chem*. **2022**, *648*, e202200093 (joint corresponding author with H. Grützmacher).

[27] U. Fischbach, M. Vogt, **P. Coburger**, M. Trincado, H. Grützmacher, Trigonal Bipyramidal Rhodium(I) Methyl and Phenyl Complexes: Precursors of Oxidative Methyl and Phenyl Radical Generation, *Inorganics* **2022***, 10,* 28.

[26] G. Hierlmeier, **P. Coburger**, D. J. Scott, T. M. Maier, S. Pelties, R. Wolf, D. M. Pividori, K. Meyer, N. P. van Leest,. B. de Bruin, Di-*tert*-butyldiphosphatetrahedrane as a Source of 1,2-Diphosphacyclobutadiene Ligands, *Chem. Eur. J*. **2021**, *27*, 14936-14946.

[25] M. Margeson, F. Seeberger, J. Kelly, J. Leitl, **P. Coburger**, R. Szlosek, C. Müller, R. Wolf, Expedient Hydrofunctionalisation of Carbonyls and Imines Initiated by Phosphacyclohexadienyl Anions, *ChemCatChem*. **2021**, *13*, 3761-3764.

[24] P. Coburger, J. Leitl, D. Scott, G. Hierlmeier, I. Shenderovich, E. Hey-Hawkins, R. Wolf, Synthesis of a Carborane-substituted Bis(phosphanido) Cobaltate(I), Ligand Substitution, and Unusual P_4 Fragmentation, *Chem. Sci*. **2021**, *12*, 11225-11235.

[23] P. Coburger,* R. Wolf, H. Grützmacher, Isomerism and Biradical Character of Tetrapnictide Dianions: A Computational Study, *Eur. J. Inorg. Chem.* **2020***, 37,* 3580-3586 (joint corresponding author with H. Grützmacher).

[22] T. Maier, M. Gawron, **P. Coburger**, M. Bodensteiner, N. van Leest, B. de Bruin, S. Demeshko, F. Meyer, R. Wolf, Low-Valence Anionic α-Diimine Iron Complexes: Synthesis, Characterization, and Catalytic Hydroboration Studies, *Inorg. Chem*. **2020**, *59*, 16035-16052.

[21] J. Leitl, **P. Coburger**, D. Scott, C. Ziegler, G. Hierlmeier, N. van Leest, B. de Bruin, G. Hörner, C. Müller, R. Wolf, Phosphorus Analogues of $[Ni(bpy)_2]$: Synthesis and Application in Carbon–Halogen Bond Activation, *Inorg. Chem.* **2020**, 59, 9951-9961.

[20] A. Straube, **P. Coburger**, L. Dütsch, E. Hey-Hawkins, Triple the fun: tris (ferrocenyl) arene-based gold (I) complexes for redox-switchable catalysis, *Chem. Sci.* **2020**, *39,* 10657-10682.

[19] G. Hierlmeier, **P. Coburger**, N. P. van Leest, B. de Bruin, R. Wolf, Aggregation and Degradation of White Phosphorus Mediated by N-Heterocyclic Carbene Nickel(0) Complexes, *Angew. Chem. Int. Ed.* **2020**, *59*, 14148-14153.

[18] J. Leitl, A. R. Jupp, E. R. M. Habraken, V. Streitferdt, **P. Coburger**, D. J. Scott, R. M. Gschwind, C. Müller, J. C. Slootweg, Robert Wolf, A phosphinine-derived 1-phospha-7-bora-norbornadiene: frustrated Lewis pair type activation of triple bonds, *Chem. Eur. J.* **2020***, 26,* 7788-7800.

[17] A. Straube, **P. Coburger**, M. Michak, M. Ringenberg, E. Hey-Hawkins, The core of the matter–arene substitution determines the coordination and catalytic behaviour of tris (1-phosphanyl-1′-ferrocenylene) arene gold (i) complexes, *Dalton Trans*. **2020**, *49*, 1667-16682.

[16] A. Straube, **P. Coburger**, M. R. Ringenberg, E. Hey-Hawkins, Tricoordinate Coinage Metal Complexes with a Redox-Active Tris-(Ferrocenyl)triazine Backbone Feature Triazine–Metal Interactions, *Chem. Eur. J.* **2020**, *26*, 5758 –5764**.**

[15] G. Hierlmeier, **P. Coburger**, M. Bodensteiner, R. Wolf, Di-tert-butyldiphosphatetrahedrane: Catalytic Synthesis of the Elusive Phosphaalkyne Dimer, *Angew. Chem. Int. Ed.* **2019**, *58*, 16918-16922.

[14] J. Leitl, M. Marquardt, **P. Coburger**, D. J. Scott, V. Streitferdt, R. M. Gschwind, C. Müller, R. Wolf, Facile C=O Bond Splitting of Carbon Dioxide Induced by Metal-Ligand Cooperativity in a Phosphinine Iron(0) Complex, *Angew. Chem. Int. Ed.* **2019**, *58*, 15407-15411.

[13] M. Gozzi, B. Murganić, D. Drača, J. Popp, **P. Coburger**, D. Maksimović-Ivanić, S. Mijatović, E. Hey-Hawkins, Targeting Autophagy: Dual Mode of Action of Quinoline-Conjugated Ruthenacarboranes against Glioblastoma Cells, *ChemMedChem* **2019**, *14*, 2061-2074**.**

[12] M. Gozzi, B. Schwarze, **P. Coburger**, E. Hey-Hawkins, On the Aqueous Solution Behavior of C-Substituted Ruthenacarboranes, *Inorganics* **2019**, *7*, 91-105.

[11] P. Coburger, P. Bielytskyi, D. Williamson, E. Rys, A. Kreienbrink, P. Lönnecke, J. Matysik, E. Hey-Hawkins, Accessing the First *nido*-Carborane-substituted Diphosphetane: A Ligand and Synthon for *nido*-Carboranylphosphanes, *Chem. Eur. J.* **2019***, 25,* 11456-11465. (Cover Feature).

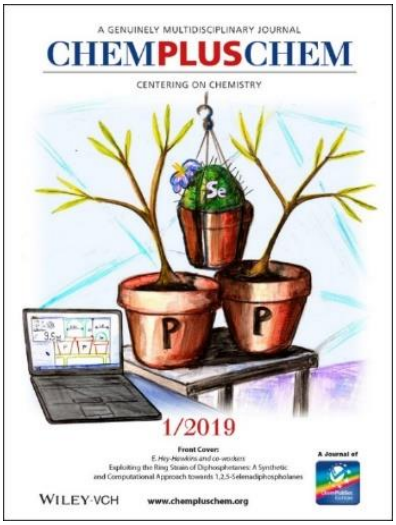
[10] P. Coburger, G. Kahraman, A. Straube, E. Hey-Hawkins, Rhodium(I) Complexes With Carborane-substituted *P*,*N* Ligands: Investigations of Electronic Structure and Dynamic Behaviour, *Dalton Trans.* **2019***, 48*, 9625-9630 (Themed Collection: The central role of the d-block metals in the periodic table).

[9] P. Coburger, H. Grützmacher, E. Hey-Hawkins, Molecular Doping: Accessing the First Carborane-substituted 1,2,3-Triphospholanide *via* Insertion of P^- into a P–P bond, *Chem. Commun.* **2019**, *55*, 3187-3190 (Inside Front Cover).

[8] T. M. Maier, **P. Coburger**, N. P. van Leest, E. Hey-Hawkins, R. Wolf, Direct synthesis of an anionic 13-vertex closo-cobaltacarborane cluster, *Dalton Trans*. **2019**, 48, 15772-15777.

[7] M. Schlegel, **P. Coburger**, C. Schneider, A Novel Sc(OTf)3-Catalyzed (2+2+1)-Cycloannulation/Aza-Friedel-Crafts Alkylation Sequence toward Multicyclic 2-Pyrrolines, *Chem. – Eur. J.* **2018**, *24*, 14207–14212.

[6] P. Coburger, R. Aures, P. Schulz, E. Hey-Hawkins, Exploiting the Ring Strain of Diphosphetanes: A Synthetic and Computational Approach towards 1,2,5-Selenadiphospholanes, *ChemPlusChem* **2018**, *83*, 1057–1064 (Front Cover and Cover Profile).



[5] J. Schulz, A. Kreienbrink, **P. Coburger**, B. Schwarze, T. Grell, P. Lönnecke, E. Hey-Hawkins, 12-Vertex Zwitterionic Bis-phosphonium-*nido*-carborates through Ring-Opening Reactions of 1,2-Diphosphetanes, *Chem. – Eur. J.* **2018**, *24*, 6208–6216.

[4] P. Coburger, S. Demeshko, C. Rödl, E. Hey-Hawkins, R. Wolf, Oxidative P–P Bond Addition to Cobalt(−I): Formation of a Low-Spin Cobalt(III) Phosphanido Complex, *Angew. Chem. Int. Ed.* **2017**, *56*, 15871–15875; *Angew. Chem.* **2017**, *129*, 16087–16091.

[3] S. Bauer, I. Maulana, **P. Coburger**, S. Tschirschwitz, P. Lönnecke, M. B. Sárosi, R. Frank, E. Hey-Hawkins, Chiral Rhodium(I) Complexes of 1,2-Bis-(chloroalkoxyphosphanyl)- and 1,2-Bis-(amidoalkoxyphosphanyl)-1,2-dicarba-*closo*-dodecaboranes(12), *Chem. Select* **2017**, *2*, 7407–7416.

[2] P. Coburger, J. Schulz, J. Klose, B. Schwarze, M. B. Sárosi, E. Hey-Hawkins, C_2-Symmetric *P,N* Ligands Derived from Carborane-Based Diphosphetanes: Synthesis and Coordination Chemistry, *Inorg. Chem.* **2017**, *56*, 292–304.

[1] T. Möller, P. Wonneberger, M. B. Sárosi, **P. Coburger**, E. Hey-Hawkins, P-chiral 1-phosphanorbornenes: from asymmetric phospha-Diels–Alder reactions towards ligand design and functionalisation, *Dalton Trans.* **2016**, *45*, 1904–1917.