

## INSTITUT FÜR ANORGANISCHE CHEMIE

Am Institut tätig:

Prof. Dr. Franc Meyer  
Prof. Dr. Sven Schneider  
Prof. Dr. Inke Siewert  
Prof. Dr. Dietmar Stalke  
Prof. Dr. Thomas Waitz  
Prof. Dr. Selvan Demir  
Dr. Matthias Otte  
Dr. Christian Sindlinger

Emeriti:

Prof. Dr. Dr. h. c. mult. Herbert W. Roesky  
Prof. George M. Sheldrick

## LISTE DER VERÖFFENTLICHUNGEN

2017

- Abbenseth**, Josh ; **Diefenbach**, Martin ; **Bete**, Sarah C. ; **Würtele**, Christian ; **Volkmann**, Christian ; **Demeshko**, Serhiy ; **Holthausen**, Max C. ; **Schneider**, Sven :  
A square-planar osmium(II) complex  
*Chem. Commun.* **53**(4), 5511-5514 (2017)
- Abbenseth**, Josh ; **Bete**, Sarah C. ; **Finger**, Markus ; **Volkmann**, Christian ; **Würtele**, Christian ; **Schneider**, Sven :  
Four- and five-coordinate osmium(IV) nitrides and imides: circumventing the "nitrido wall"  
*Organometallics*, DOI: 10.1021/acs.organomet.7b00707.  
Publication Date (Web): October 31, 2017
- Adermann**, Torben ; **Loeffler**, Daniel ; **Wilmer**, Hagen ; **Schierle-Arndt**, Kerstin ; **Gerken**, Jan ; **Volkmann**, Christian ; **Schneider**, Sven :  
Process for the generation of thin inorganic films  
WO2017093283 (A1), **2017**. (Patentschrift)
- Apfel**, Ulf-Peter ; **Berkefeld**, Andreas ; **Demir**, Selvan :  
Koordinationschemie und Bioanorganik  
[Trendbericht Anorganische Chemie 2016]  
*Nachr. Chem.* **65**(3), 245-254 (2017)
- Bagh**, Bidraha ; **Broere**, Daniël L. J. ; **Sinha**, Vivek ; **Kuijpers**, Petrus F. ; **van Leest**, Nicolaas P. ; **de Bruin**, Bas ; **Demeshko**, Serhiy ; **Siegler**, Maxime A. ; **van der Vlugt**, Jarl Ivar :  
Catalytic synthesis of N-heterocycles via direct C(sp<sup>3</sup>)-H amination using an air-stable iron(III) species with a redox-active ligand  
*J. Am. Chem. Soc.* **139**(14), 5117-5124 (2017)

6. **Bergner**, Marie ; **Roy**, Lisa ; **Dechert**, Sebastian ; **Neese**, Frank ; **Ye**, Shengfa ; **Meyer**, Franc :  
Ligandenumlagerungen an Fe/S-Cofaktoren: langsame Isomerisierung eines biomimetischen [2Fe-2S]-Clusters  
[Ligand rearrangements at Fe/S cofactors: slow isomerization of a biomimetic [2Fe-2S] cluster]  
*Angew. Chem.* **129**(17), 4882-4886 (2017) ; *Angew. Chem. Int. Ed.* **56**(17), 4882-4886 (2017)
7. **Bergner**, Marie ; **Dechert**, Sebastian ; **Demeshko**, Serhiy ; **Kupper**, Claudia ; **Mayer**, James M. ; **Meyer**, Franc :  
Model of the MitoNEET [2Fe-2S] cluster shows proton coupled electron transfer  
*J. Am. Chem. Soc.* **139**(2), 701-707 (2017)
8. **Chakraborty**, Utlam ; **Demeshko**, Serhiy ; **Meyer**, Franc ; **Rebreyend**, Christophe ; **de Bruin**, Bas ; **Atanasov**, Mihail ; **Neese**, Frank ; **Mühdorf**, Bernd ; **Wolf**, Robert :  
Elektronische Struktur und magnetische Anisotropie eines ungesättigten Cyclopentadienyleisen(I)-Komplexes mit 15 Valenzelektronen [Electronic structure and magnetic anisotropy of an unsaturated cyclopentadienyl iron(I) complex with 15 valence electrons]  
*Angew. Chem.* **129**(27), 8107-8112 (2017) ; *Angew. Chem. Int. Ed.* **56**(27), 7995-7999 (2017)
9. **Chen**, Shimin ; **Li**, Bin ; **Wang**, Xiaoping ; **Huang**, Yanting ; **Li**, Jiancheng ; **Zhu**, Hongping ; **Zhao**, Lili ; **Frenking**, Gernot ; **Roesky**, Herbert W. :  
A C(sp<sup>2</sup>)-H dehydrogenation of heteroarenes and arenes by a functionalized aluminum hydride  
*Chem. Eur. J.* **23**(55), 13633-13637 (2017)
10. **Choudhury**, Amitava ; **Mohapatra**, Sudip ; **Asl**, Yaghoobnejad Hooman ; **Lee**, Seng Huat ; **Hor**, Yew San ; **Medvedeva**, Julia E. ; **McClane**, Devon L. ; **Hilmas**, Gregory E. ; **McGuire**, Michael A. ; **May**, Andrew F. ; **Wang**, Hsin ; **Dash**, Shreeram ; **Welton**, Aaron ; **BooLchand**, Punit ; **Devlin**, Kasey P. ; **Aitken**, Jennifer ; **Herbst-Irmer**, Regine ; **Petríček**, Václav :  
New insights into the structure, chemistry, and properties of Cu<sub>4</sub>SnS<sub>4</sub>  
*J. Solid State Chem.* **253**, 192-201 (2017)
11. **Chowdhury**, Md. Arshad H ; **Haque**, Mohd. Rezaul ; **Ghosh**, Shishir ; **Mobin**, Shaikh M ; **Tocher**, Derek A ; **Hogarth**, Graeme ; **Richmond**, Michael G ; **Kabir**, Shariff E ; **Roesky**, Herbert W. :  
Reversible C-H bond activation at a triosmium centre: a comparative study of the reactivity of unsaturated triosmium clusters Os<sub>3</sub>(CO)<sub>8</sub>(μ-dppm)(μ-H)<sub>2</sub> and Os<sub>3</sub>(CO)<sub>8</sub>(μ-dppf)(μ-H)<sub>2</sub> with activated alkynes  
*J. Organomet. Chem.* **836-837**, 68-80 (2017)
12. **Cirkel**, Jasper ; **Eggert**, Sabina ; **Bögeholz**, Susanne ; **Schneider**, Susanne ; **Waitz**, Thomas ; **Halverscheid**, Stefan :  
A teacher education approach for integrated science instruction  
*New Perspective for Science Education, Conference Proceedings (ISBN 978-88-6292-847-2), Libreriauniversitatia.it*, 357-361 (2017)
13. **Coburger**, Peter ; **Demeshko**, Serhiy ; **Rödl**, Christian ; **Hey-Hawkins**, Evamarie ; **Wolf**, Robert :  
Oxidative P-P-Bindungsaddition an Cobalt(-I): Bildung eines Low-spin-Cobalt(III)-Phosphanidokomplexes  
[Oxidative P-P bond addition to cobalt(-I): formation of a low-spin cobalt(III) phosphanido complex]  
*Angew. Chem.* **129**(50), 16087-16091 (2017) ; *Angew. Chem. Int. Ed.* **56**(50), 15871-15875 (2017)
14. **Damjanovi**, Marko ; **Samuel**, Prinson P ; **Roesky**, Herbert W. ; **Enders**, Markus :  
NMR analysis of an Fe(I)-carbene complex with strong magnetic anisotropy  
*Dalton Trans.* **46**(16), 5159-5169 (2017)
15. **Dauer**, David-R. ; **Koehne**, Ingo ; **Herbst-Irmer**, Regine ; **Stalke**, Dietmar :  
From bis-(imidazol-2-yl)-methanes to asymmetric substituted bisheterocyclo methanides in metal coordination  
*Eur. J. Inorg. Chem.* **(13)**, 1966-1978 (2017)
16. **Dege**, Janina ; **Milsch**, Nele ; **Waitz**, Thomas :  
The potentials of nanoscience for the implementation of an education for sustainable development in chemistry class  
*New Perspective for Science Education, Conference Proceedings (ISBN 978-88-6292-847-2), Libreriauniversitatia.it*, 436-440 (2017)
17. **Demir**, Selvan ; **Boshart**, Monica D. ; **Corbey**, Jordan F. ; **Woen**, David H. ; **Gonzalez**, Miguel I. ; **Ziller**, Joseph W. ; **Meihaus**, Katie R. ; **Long**, Jeffrey R. ; **Evans**, William J. :  
Slow magnetic relaxation in a dysprosium ammonia metallocene complex  
*Inorg. Chem.*, **56** (24), 15049-15056 (2017)

18. **Demir**, Selvan ; **Gonzalez**, Miguel I. ; **Darago**, Lucy E. ; **Evans**, William J. ; **Long**, Jeffrey R. :  
Giant coercivity and high magnetic blocking temperatures for N<sub>2</sub> 3- radical-bridged dilanthanide complexes upon ligand dissociation  
*Nature Communications* **8**, Article number: 2144 (2017)  
<https://www.nature.com/articles/s41467-017-01553-w.pdf>
19. **Demir**, Selvan ; **Meihaus**, Katie R. ; **Long**, Jeffrey R. :  
Slow magnetic relaxation in a neodymium metallocene tetraphenylborate complex  
*J. Organomet. Chem.*  
Available online 26 October 2017 <https://doi.org/10.1016/j.jorganchem.2017.10.035>
20. **Fedushkin**, Igor L. ; **Yambulato**v, Dmitriy S. ; **Skatova**, Alexandra A. ; **Baranov**, Evgeny V. ; **Demeshko**, Serhiy ; **Bogomyakov**, Artem S. ; **Ovcharenko**, Victor I. ; **Zueva**, Ekaterina M. :  
Ytterbium and europium complexes of redox-active ligands: searching for redox isomerism  
*Inorg. Chem.* **56**(16), 9825-9833 (2017)
21. **Ghadwal**, Rajendra S. ; **Lamm**, Jan-Hendrik ; **Rottschäfer**, Dennis ; **Schürmann**, Christian J. ; **Demeshko**, Serhiy :  
Facile routes to abnormal-NHC-cobalt(II) complexes  
*Dalton Trans.* **46**(24), 7664-7667 (2017)
22. **Ghorai**, Debasish ; **Müller**, Valentin ; **Keil**, Helena ; **Stalke**, Dietmar ; **Zanoni**, Giuseppe ; **Tkachenko**, Boryslav A. ; **Schreiner**, Peter R. ; **Ackermann**, Lutz :  
Secondary phosphine oxide preligand for palladium-catalyzed C–H (hetero)arylations: efficient access to pybox ligands  
*Adv. Synth. Catal.* **359**(18), 3137-3141 (2017) [and inside cover]
23. **Goswami**, Vandana E. ; **Walli**, Adam ; **Förster**, Moritz ; **Dechert**, Sebastian ; **Demeshko**, Serhiy ; **Holthausen**, Max C. ; **Meyer**, Franc :  
Acid/base triggered interconversion of  $\mu$ - $\eta^2$ :  $\eta^2$ -peroxido and bis( $\mu$ -oxido) dicopper intermediates capped by proton-responsive ligands  
*Chem. Sci.* **8**(4), 3031-3037 (2017)
24. **Götze**, Sebastian ; **Herbst-Irmer**, Regine ; **Klapper**, Martin ; **Görls**, Helmar ; **Schneider**, Kilian R. A. ; **Barnett**, Robert ; **Burks**, Thomas ; **Neu**, Ursula ; **Stallforth**, Pierre :  
Structure, biosynthesis, and biological activity of the cyclic lipopeptide anikasin  
*ACS Chem. Biol.* **12**(10), 2498-2502 (2017)
25. **Gould**, Clin A. ; **Darago**, Lucy E. ; **Gonzalez**, Miguel I. ; **Demir**, Selvan ; **Long**, Jeffrey R. :  
A trinuclear radical-bridged lanthanide single-molecule magnet  
*Angew. Chem.* **129**(34), 10237-10241 (2017) ; *Angew. Chem. Int. Ed.* **56**(34), 10103-10107 (2017)
26. **Gros**, Oliver A. ; **Lauk**, Sergej ; **Müller**, Carsten ; **Gidt**, Wjatscheslaw ; **Sun**, Yu ; **Demeshko**, Serhiy ; **Meyer**, Franc ; **Sitzmann**, Helmut :  
Iron(II) high-spin and low-spin complexes from pentaisopropylcyclopentadienyliron(II) bis(trimethylsilyl)amide  
*Eur. J. Inorg. Chem.* (30), 3635-3643 (2017)
27. **Hassenrück**, Christopher ; **Mücke**, Philipp ; **Scheck**, Johanna ; **Demeshko**, Serhiy ; **Winter**, Rainer F. :  
Oxidized styrylruthenium-ferrocene conjugates: from valence localization to valence tautomerism  
*Eur. J. Inorg. Chem.* (2), 401-411 (2017)
28. **Herbst-Irmer**, Regine ; **Stalke**, Dietmar :  
Experimental charge density studies: data reduction and model quality: the more the better?  
*Acta Cryst.*, **B73**(4), 531-543 (2017)
29. **Ho**, Nga Kim T. ; **Reichmann**, Sven O. ; **Rottschäfer**, Dennis ; **Herbst-Irmer**, Regine ; **Ghadwal**, Rajendra S. :  
Expanding the scope of Cu(I) catalyzed “click chemistry” with abnormal NHCs: three-fold click to tris-triazoles  
*Catalysts* **7**(9) 262, 1-14 (2017)
30. **Hossain**, Sayed Muktar ; **Lakma**, Avinash ; **Pradhan**, Rabindra Nath ; **Demeshko**, Serhiy ; **Singh**, Akhilesh Kumar :  
Valence directed binding mode of [2 × 2] iron grids of an unsymmetrical picolinic hydrazone based ligand  
*Dalton Trans.* **46**(37), 12612-12618 (2017)

31. **Irmer**, Erhard ; **Stalke**, Dietmar :  
Chemische Bindung unterrichten – ein Plädoyer für die Oktettregel  
*MNU Journal* **70**(4), 227-234 (2017)
32. **Jana**, Manish ; **Pal**, Nabendu ; **White**, Corey J. ; **Kupper**, Claudia ; **Meyer**, Franc ; **Lehnert**, Nicolai ; **Majumdar**, Amit :  
Functional mononitrosyl diiron(II) complex mediates the reduction of NO to N<sub>2</sub>O with relevance for flavodiiron NO reductases  
*J. Am. Chem. Soc.* **139**(41), 14380-14383 (2017)
33. **Jancik**, Vojtech ; **Cortés-Guzmán**, Fernando ; **Herbst-Irmer**, Regine ; **Matínez-Otero**, Diego :  
Is hexachloro-*cyclo*-triphosphazene aromatic? Evidence from experimental charge density analysis  
*Chem. Eur. J.* **23**(29), 6964-6968 (2017)
34. **Khan**, Md. Mehedi M. ; **Ghosh**, Shishir ; **Hogarth**, Graeme ; **Tocher**, Derek A ; **Richmond**, Michael G ; **Kabir**, Shariff E ; **Roesky**, Herbert W. :  
Mixed main group transition metal clusters: reactions of [Ru<sub>3</sub>(CO)<sub>10</sub>(μ-dppm)] with Ph<sub>3</sub>SnH  
*J. Organomet. Chem.* **840**, 47-55 (2017)
35. **Khan**, Mehedi M. ; **Alam**, Mahub ; **Ghosh**, Shishir ; **Rahaman**, Ahibur ; **Roesky**, Herbert W. :  
Reactions of Ru<sub>3</sub>(CO)<sub>10</sub>(μ-dppm) with Ph<sub>3</sub>GeH: Ge–H and Ge–C bond cleavage in Ph<sub>3</sub>GeH at triruthenium clusters  
*J. Organomet. Chem.* **843**, 75-86 (2017)
36. **Kindermann**, Nicole ; **Günes**, Can-Jerome ; **Dechert**, Sebastian ; **Meyer**, Franc :  
Hydrogen atom abstraction thermodynamics of a μ-1,2-superoxo dicopper(II) complex  
*J. Am. Chem. Soc.* **139**(29), 9831-9834 (2017)
37. **Klopsch**, Isabel ; **Yuzik-Klimova**, Ekaterina Yu ; **Schneider**, Sven :  
Functionalization of N<sub>2</sub> by mid to late transition metals via N–N bond cleavage  
*Topics in Organometallic Chemistry* **60**, 71-112 (2017)
38. **Koehne**, Ingo ; **Bachmann**, Sebastian ; **Niklas**, Thomas ; **Herbst-Irmer**, Regine ; **Stalke**, Dietmar :  
A novel bulky heteroaromatic substituted methanide mimicking NacNac: Bis(4,6-tBu-benzoxazol-2-yl)methanide in s-block metal coordination  
*Chem. Eur. J.* **23**(53), 13141-13149 (2017)
39. **Koehne**, Ingo ; **Herbst-Irmer**, Regine ; **Stalke**, Dietmar :  
Bis(4-methylbenzoxazol-2-yl)methanide in s-block metal coordination  
*Eur. J. Inorg. Chem.* (27), 3322-3326 (2017)
40. **Koehne**, Ingo ; **Bachmann**, Sebastian ; **Herbst-Irmer**, Regine ; **Stalke**, Dietmar :  
Eine wasserhaltige Organokaliumverbindung basierend auf Bis(4,6-tert-Butylbenzoxazol-2-yl)methanid und ihre unerwartete Hydrolysebeständigkeit [A water comprising organopotassium compound based on bis(4,6-tBu-benzoxazol-2-yl)methanide and its unexpected hydrolysis stability]  
*Angew. Chem.* **129**(47), 15337-15342 (2017); *Angew. Chem. Int. Ed.* **56**(47), 15141-15145 (2017)
41. **Koehne**, Ingo ; **Graw**, Nico ; **Teuteberg**, Thorsten ; **Herbst-Irmer**, Regine ; **Stalke**, Dietmar :  
Introducing NacNac-like bis(4,6-isopropylbenzoxazol-2-yl)methanide in s-block metal coordination  
*Inorg. Chem.* **56**(24), 14968-14978 (2017)
42. **Kowalska**, Joanna K. ; **Nayyar**, Brahmajot ; **Rees**, Julian A. ; **Schiewer**, Christine E. ; **Lee**, Sonny C. ; **Kovacs**, Julie A. ; **Meyer**, Franc ; **Weyhermüller**, Thomas ; **Otero**, Edwige ; **DeBeer**, Serena :  
Iron L2,3-edge X-ray absorption and X-ray magnetic circular dichroism studies of molecular iron complexes with relevance to the FeMoco and FeVco active sites of nitrogenase  
*Inorg. Chem.* **56**(14), 8147-8158 (2017)
43. **Krause**, Lennard ; **Niepötter**, Benedikt ; **Schürmann**, Christian J. ; **Stalke**, Dietmar ; **Herbst-Irmer**, Regine :  
Validation of experimental charge density refinement strategies: When do we overfit?  
*IUCrJ* **4**(4), 420-430 (2017)
44. **Kreyenschmidt**, Anne-Kathrin ; **Bachmann**, Sebastian ; **Niklas**, Thomas ; **Stalke**, Dietmar :  
Molecular weight estimation of molecules incorporating heavier elements from van-der-Waals corrected ECC-DOSY  
*ChemSelect* **2**(24), 6957-6960 (2017)

45. **Kuijpers**, Petrus F. ; **van der Vlugt**, Jarl Ivar ; **Schneider**, Sven ; **de Bruin**, Bas :  
Nitrene radical intermediates in catalytic synthesis  
*Chem. Eur. J.* **23**(56), 13819-13829 (2017) [Frontispiece]
46. **Kundu**, Subrata ; **Li**, Bin ; **Kretsch**, Johannes ; **Herbst-Irmer**, Regine ; **Andrada**, Diego M. ;  
**Frenking**, Gernot ; **Stalke**, Dietmar ; **Roesky**, Herbert W. :  
An electrophilic carbene-anchored silylene-phosphinidene  
*Angew. Chem.* **129**(15), 4283-4287 (2017); *Angew. Chem. Int. Ed.* **56**(15), 4219-4223 (2017)
47. **Kundu**, Subrata ; **Mohapatra**, Chandrajeet ; **Samuel**, Prinson P. ; **Kretsch**, Johannes ; **Walawalkar**, Mrinalini  
G. ; **Herbst-Irmer**, Regine ; **Stalke**, Dietmar ; **De**, Sriman ; **Koley**, Debasis ; **Roesky**, Herbert W. :  
An unprecedented 1,4-diphospha-2,3-disila butadiene (-P=Si-Si=P-) derivative and a 1,3-diphospha-2-silaallyl  
anion, each stabilized by the amidinate ligand  
*Chem. Commun.* **53**(1), 192-195 (2017)
48. **Kundu**, Subrata ; **Samuel**, Prinson P ; **Luebben**, Anna ; **Andrada**, Diego M. ; **Frenking**, Gernot ;  
**Dittrich**, Birger ; **Roesky**, Herbert W. :  
Carbene stabilized interconnected bis-germylene and its silicon analogue with small methyl substituents  
*Dalton Trans.* **46**(24), 7947-7952 (2017)
49. **Kundu**, Subrata ; **Samuel**, Prinson P. ; **Sinhbabu**, Soumen ; **Luebben**, Anna V. ; **Dittrich**, Birger ;  
**Andrada**, Diego M. ; **Frenking**, Gernot ; **Stückl**, A. Claudia ; **Schwederski**, Brigitte ; **Paretzki**, Alexa ;  
**Kaim**, Wolfgang ; **Roesky**, Herbert W. :  
Organosilicon radicals with Si-H and Si-Me bonds from commodity precursors  
*J. Am. Chem. Soc.*, **139**(32), 11028-11031 (2017)
50. **Kundu**, Subrata ; **Sinhbabu**, Soumen ; **Dutta**, Sayan ; **Mondal**, Totan ; **Koley**, Debasis ; **Dittrich**, Birger ;  
**Schwederski**, Brigitte ; **Kaim**, Wolfgang ; **Stückl**, A. Claudia ; **Roesky**, Herbert W. :  
Synthesis and characterization of Lewis base stabilized mono- and di-organo aluminum radicals  
*Chem. Commun.* **53**(76), 10516-10519 (2017)
51. **Kupper**, Claudia ; **Mondal**, Bhaskar ; **Serrano-Plana**, Joan ; **Klawitter**, Iris ; **Neese**, Frank ;  
**Costas**, Miquel ; **Ye**, Shengfa ; **Meyer**, Franc :  
Nonclassical single-state reactivity of an oxo-iron(IV) complex confined to triplet pathways  
*J. Am. Chem. Soc.* **139**(26), 8939-8949 (2017)
52. **Li**, Bin ; **Kundu**, Subrata ; **Zhu**, Hongping ; **Keil**, Helena ; **Herbst-Irmer**, Regine ; **Stalke**, Dietmar ;  
**Frenking**, Gernot ; **Andrada**, Diego M. ; **Roesky**, Herbert W. :  
An open route to asymmetric substituted Al-Al bonds using Al(I)- and Al(III)- precursors  
*Chem. Commun.* **53**(17), 2543-2546 (2017) [Cover page]
53. **Li**, Bin ; **Kundu**, Subrata ; **Stueckl**, A. Claudia ; **Zhu**, Hongping ; **Keil**, Helena ; **Herbst-Irmer**, Regine ;  
**Stalke**, Dietmar ; **Schwederski**, Brigitte ; **Kaim**, Wolfgang ; **Andrada**, Diego M. ; **Frenking**, Gernot ;  
**Roesky**, Herbert W. :  
Ein stabiles neutrales Radikal in der Koordinationssphäre des Aluminiums  
[A stable neutral radical in the coordination sphere of aluminium]  
*Angew. Chem.* **129**(1), 407-411 (2017) ; *Angew. Chem. Int. Ed.* **56**(1), 397-400 (2017)
54. **Li**, Bin ; **Li**, Jiancheng ; **Liu**, Rui ; **Zhu**, Hongping ; **Roesky**, Herbert W. :  
Facile route to rare heterobimetallic aluminum-copper and aluminum-zinc selenide clusters  
*Inorg. Chem.* **56**(6), 3136-3139 (2017)
55. **Liang**, Yu-Feng ; **Müller**, Valentin ; **Liu**, Weiping ; **Münch**, Annika ; **Stalke**, Dietmar ; **Ackermann**, Lutz :  
Methylenecyclopropane annulation by manganese(I)-catalyzed stereoselective C-H/C-C activation  
*Angew. Chem.* **129**(32), 9453-9547 (2017); *Angew. Chem. Int. Ed.* **56**(32), 9415-9419 (2017)
56. **Li**, Wenling ; **Ma**, Xiao ; **Walawalkar**, Mrinalini G. ; **Yang**, Zhi ; **Roesky**, Herbert W. :  
Soluble aluminum hydrides function as catalysts in deprotonation, insertion, and activation reactions  
*Coordin. Chem. Rev.* **350**, 14-29 (2017)
57. **Loup**, Joachim ; **Zell**, Daniel ; **Oliveira**, João C. A. ; **Keil**, Helena ; **Stalke**, Dietmar ; **Ackermann**, Lutz :  
Asymmetric iron-catalyzed C-H alkylation enabled by remote ligand meta-substitution  
*Angew. Chem.* **129**(45), 14385-14389 (2017) ; *Angew. Chem. Int. Ed.* **56**(45), 14197-14201 (2017)



58. **Ma**, Xiaoli ; **Yao**, Miaomiao ; **Zhong**, Mingdong ; **Deng**, Ziyang ; **Li**, Wenling ; **Yang**, Zhi ; **Roesky**, Herbert W. :  
Synthesis and characterization of  $\beta$ -diketiminato aluminum compounds and their use in the ring-opening polymerization of  $\epsilon$ -caprolactone  
*Z. Anorg. Allg. Chem.* **643**(2), 198-202 (2017)
59. **Malaspina**, Lorraine A. ; **Edwards**, Alison J. ; **Woińska**, Magdalena ; **Jayatilaka**, Dylan ; **Turner**, Michael J. ; **Price**, Jason R. ; **Herbst-Irmer**, Regine ; **Sugimoto**, Kunihisa ; **Nishibori**, Eiji ; **Grabowsky**, Simon :  
Predicting the position of the hydrogen atom in the short intramolecular hydrogen bond of the hydrogen maleate anion from geometric correlations  
*Cryst. Growth Des.* **17**(7), 3812-3825 (2017)
60. **Manz**, Dennis-Helmut ; **Duan**, Peng-Cheng ; **Dechert**, Sebastian ; **Demeshko**, Serhiy ; **Oswald**, Rainer ; **John**, Michael ; **Mata**, Ricardo A. ; **Meyer**, Franc :  
Pairwise H<sub>2</sub>/D<sub>2</sub> exchange and H<sub>2</sub> substitution at a bimetallic dinickel(II) complex featuring two terminal hydrides  
*J. Am. Chem. Soc.* **139**(46), 16720-16731 (2017)
61. **Milsch**, Nele ; **Waitz**, Thomas :  
Motives for choosing an area of expertise in chemistry: an explorative study at university level  
*New Perspective for Science Education, Conference Proceedings (ISBN 978-88-6292-847-2), Libreriauniversitaria.it*, 570-575 (2017)
62. **Nestke**, Sebastian ; **Kügler**, Merle ; **Scholz**, Julius ; **Wilken**, Mona ; **Jooss**, Christian ; **Siewert**, Inke :  
A copper complex as catalyst in proton reduction  
*Eur. J. Inorg. Chem.*(28), 3376-3382 (2017); [Cover: *Eur. J. Inorg. Chem.* (28), 3361]
63. **Niepötter**, Benedikt ; **Stalke**, Dietmar :  
Electron density and chemical bonding in organosilicon compounds  
In : *Organosilicon Compounds: From Theory to Synthesis to Application*, Vol.2, Editor: Vladimir Ya Lee, San Diego : Elsevier, 2017, S. 3-58 [ISBN 978-0-12-814213-4]
64. **Niklas**, Thomas ; **Steinmetzger**, Christian ; **Rüttger**, F. ; **Stalke**, Dietmar ; **John**, Michael :  
Distinct alignment of benzene derivatives in stretched polystyrene and polybutylacrylate gels: specific polymer-solute interactions  
*Magn. Reson. Chem.* **55**(12), 1084-1090 (2017)
65. **Odrobina**, Jann ; **Scholz**, Julius ; **Pannwitz**, Andrea ; **Francàs**, Laia ; **Dechert**, Sebastian ; **Llobet**, Antoni ; **Jooss**, Christian ; **Meyer**, Franc :  
Backbone immobilization of the bis(bipyridyl)pyrazolato diruthenium catalyst for electrochemical water oxidation  
*ACS Catal.* **7**(3), 2116-2125 (2017)
66. **Odrobina**, Jann ; **Scholz**, Julius ; **Risch**, Marcel ; **Dechert**, Sebastian ; **Jooss**, Christian ; **Meyer**, Franc :  
Chasing the Achilles' heel in hybrid systems of diruthenium water oxidation catalysts anchored on indium tin oxide: the stability of the anchor  
*ACS Catal.* **7**(9), 6235-6244 (2017)
67. **Parvin**, Nasrina ; **Pal**, Shiv ; **Khan**, Shabana ; **Das**, Shubhajit ; **Pati**, Swapan K. ; **Roesky**, Herbert W. :  
Unique approach to copper(I) silylene chalcogenone complexes  
*Inorg. Chem.* **56**(3), 1706-1712 (2017)
68. **Ramaraj**, A. ; **Reddy**, K. Hari Krishna ; **Keil**, Helena ; **Herbst-Irmer**, Regine ; **Stalke**, Dietmar ; **Jemmis**, Eluvathingal D. ; **Jagirdar**, Balaji R. :  
Approaches to sigma complexes via displacement of agostic interactions: an experimental and theoretical investigation  
*Organomet.* **36**(15), 2736-2745 (2017)
69. **Rebreyend**, Christophe ; **Gloaguen**, Yann ; **Lutz**, Martin ; **van der Vlugt**, Jarl Ivar ; **Siewert**, Inke ; **Schneider**, Sven ; **de Bruin**, Bas :  
Electrocatalytic azide oxidation mediated by a Rh(PNP) pincer complex  
*Chem. Eur. J.* **23**(69), 17438-17443 (2017)  
[Cover Feature: *Chem. Eur. J.* **23**(69), 17396]

70. **Roy**, Sudipta ; **Mondal**, Kartik Chandra ; **Kundu**, Subrata ; **Li**, Bin ; **Schürmann**, Christian J. ; **Dutta**, Sayan ; **Koley**, Debasis ; **Herbst-Irmer**, Regine ; **Stalke**, Dietmar ; **Roesky**, Herbert W. :  
Two structurally characterized conformational isomers with different C-P bonds  
*Chem. Eur. J.* **23**(50), 12153-12157 (2017)
71. **Ruan**, Zhixiong ; **Zhang**, Shou-Kun ; **Zhu**, Cuiju ; **Ruth**, Paul Niklas ; **Stalke**, Dietmar ; **Ackermann**, Lutz :  
Synergistic phosphine/carboxylate-enabled *meta* C-H mono- and di-fluoromethylation by ruthenium(II) catalysis  
*Angew. Chem.* **129**(8), 2077-2081 (2017) ; *Angew. Chem. Int. Ed.* **56**(8), 2045-2049 (2017)
72. **Samuel**, Prinson P ; **Kundu**, Subrata ; **Mohapatra**, Chandrajeet ; **George**, Anjana ; **De**, Susmita ; **Parameswaran**, Pattiyil ; **Roesky**, Herbert W. :  
One-pot catalytic synthesis of gem-diazides and their direct conversion into safe materials  
*Europ. J. Org. Chem.* (**16**), 2327-2331 (2017)
73. **Schilling**, Carolin ; **Roggenkämper**, Dennis ; **Waitz**, Thomas :  
Design of educational videos for university entrants regarding the topic "acids and bases"  
*New Perspective for Science Education, Conference Proceedings (ISBN 978-88-6292-847-2), Libreriauniversitaria.it*, 294-297 (2017)
74. **Schneck**, Felix ; **Finger**, Markus ; **Tromp**, Moniek ; **Schneider**, Sven :  
Chemical non-innocence of an aliphatic PNP pincer ligand  
*Chem. Eur. J.* **23**(1), 33-37 (2017) (Frontispiece) [Open Access Publication]
75. **Schulte**, Thorben R. ; **Holstein**, Julian J. ; **Krause**, Lennard ; **Michel**, Reent ; **Stalke**, Dietmar ; **Sakuda**, Eri ; **Umakoshi**, Keisuke ; **Longhi**, Giovanna ; **Abbate**, Sergio ; **Clever**, Guido H. :  
Chiral-at-metal phosphorescent square-planar Pt(II)-complexes from an achiral organometallic ligand  
*J. Am. Chem. Soc.* **139**(20), 6863-6866 (2017)
76. **Schütze**, Mike ; **Dechert**, Sebastian ; **Meyer**, Franc :  
Highly active and readily accessible proline-based dizinc catalyst for CO<sub>2</sub>/epoxide copolymerization  
*Chem. Eur. J.* **23**(65), 16472-16475 (2017)
77. **Schweinfurth**, David ; **Krzystek**, J ; **Atanasov**, Mihail ; **Klein**, Johannes ; **Hohloch**, Stephan ; **Telser**, Joshua ; **Demeshko**, Serhiy ; **Meyer**, Franc ; **Neese**, Frank ; **Sarkar**, Biprajit :  
Tuning magnetic anisotropy through ligand substitution in five-coordinate Co(II) complexes  
*Inorg. Chem.* **56**(9), 5253-5265 (2017)
78. **Sdunek**, Annika ; **Waitz**, Thomas :  
Algae: the green all-rounder - An interdisciplinary teaching unit for middle school students  
*New Perspective for Science Education, Conference Proceedings (ISBN 978-88-6292-847-2), Libreriauniversitaria.it*, 23-27 (2017)
79. **Seitz**, Andreas E. ; **Eckhardt**, Maria ; **Sen**, Sakya S. ; **Erlebach**, Andreas ; **Peresyphkina**, Eugenia V. ; **Roesky**, Herbert W. ; **Sierka**, Marek ; **Scheer**, Manfred :  
Unterschiedliche Reaktivität von As<sub>4</sub> gegenüber Disilenen und Silylenen  
[Different reactivity of As<sub>4</sub> towards disilenes and silylenes]  
*Angew. Chem.* **129**(23), 6755-6759 (2017) ; *Angew. Chem. Int. Ed.* **56**(23), 6655-6659 (2017)
80. **Silantsev**, Gleb A. ; **Förster**, Moritz ; **Schluschaß**, Bastian ; **Abbenseth**, Josh ; **Würtele**, Christian ; **Volkman**, Christian ; **Holthausen**, Max C. ; **Schneider**, Sven :  
Dinitrogen splitting coupled to protonation  
*Angew. Chem.* **129**(21), 5966-5970 (2017) ; *Angew. Chem. Int. Ed.* **56**(21), 5872-5876 (2017)
81. **Sindlinger**, Christian P ; **Lawrence**, Samuel R ; **Acharya**, Shraavan ; **Ohlin**, C. André ; **Stasch**, Andreas :  
PNacPNacE: (E = Ga, In, Tl) - monomeric group 13 metal(I) heterocycles stabilized by a sterically demanding bis(iminophosphoranyl)methanide  
*Dalton Trans.* **46**(48), 16872-16877 (2017)
82. **Sinha**, Suman ; **Das**, Siuli ; **Sikari**, Rina ; **Parua**, Seuli ; **Brandaõ**, Paula ; **Demeshko**, Serhiy ; **Meyer**, Franc ; **Paul**, Nanda D. :  
Redox noninnocent azo-aromatic pincers and their iron complexes. Isolation, characterization, and catalytic alcohol oxidation  
*Inorg. Chem.* **56**(22), 14084-14100 (2017)

- 83. Sommer**, Michael G. ; **Marx**, Raphael ; **Schweinfurth**, David ; **Rechkemmer**, Yvonne ; **Neugebauer**, Petr ; **van der Meer**, Margarethe ; **Hohloch**, Stephan ; **Demeshko**, Serhiy ; **Meyer**, Franc ; **van Slageren**, Joris ; **Sarkar**, Biprajit :  
Control of complex formation through peripheral substituents in click-tripodal ligands: structural diversity in homo- and heterodinuclear cobalt-azido complexes  
*Inorg. Chem.* **56**(1), 402–413 (2017)
- 84. Spirkel**, Sebastian ; **Grzywa**, Maciej ; **Reschke**, Stephan ; **Fischer**, Jonas K. H. ; **Sippel**, Pit ; **Demeshko**, Serhiy ; **von Nidda**, Hans-Albrecht ; **Krug** ; **Volkmer**, Dirk :  
Single-crystal to single-crystal transformation of a nonporous Fe(II) metal–organic framework into a porous metal–organic framework via a solid-state reaction  
*Inorg. Chem.* **56**(20), 12337–12347 (2017)
- 85. Tong**, Jin ; **Demeshko**, Serhiy ; **Dechert**, Sebastian ; **Meyer**, Franc :  
Expanding the family of pyrazole-bridged mixed-spin and mixed-valence tetranuclear [2 × 2] iron grid complexes  
*Eur. J. Inorg. Chem.* (37), 4333–4343 (2017)
- 86. Veronelli**, Mattia ; **Dechert**, Sebastian ; **Schober**, Anne ; **Demeshko**, Serhiy ; **Meyer**, Franc :  
1,1'-Bis(pyrazol-4-yl)ferrocenes: potential clip ligands and their supramolecular structures  
*Eur. J. Inorg. Chem.* (2), 446–453 (2017)
- 87. Vogel**, Anastasia ; **Dechert**, Sebastian ; **Brückner**, Christian ; **Meyer**, Franc :  
Reaching across the divide: how monometalation of one binding pocket affects the empty binding pocket in a siamese-twin porphyrin palladium complex  
*Inorg. Chem.* **56**(4), 2221–2232 (2017)
- 88. von Hoff**, Elena ; **Mey**, Ingo ; **Waitz**, Thomas :  
Making science visible - information, motivation and participation in formal and non-formal educational offers  
*New Perspective for Science Education, Conference Proceedings (ISBN 978-88-6292-847-2), Libreriauniversitaria.it*, 392–396 (2017)
- 89. von Hoff**, Elena ; **Milsch**, Nele ; **Ehlers**, Marc ; **Waitz**, Thomas ; **Mey**, Ingo :  
Membranforschung für die Öffentlichkeit: Ein Kooperationsprojekt zwischen Fachdidaktik und Fachwissenschaft  
*CHEMKON*, **24**(4), 165–177 (2017)
- 90. Wandtke**, Sebastian ; **Stalke**, Dietmar :  
A route to new colorimetric pH sensors  
*Z. Naturforsch.* **72b**(3), 199–206 (2017)
- 91. Wang**, Dan ; **Wu**, Sun-Yun ; **Li**, Hai-Pu ; **Yang**, Ying ; **Roesky**, Herbert W. :  
Synthesis and characterization of copper complexes with the *N*-(2,6-diisopropylphenyl)-*N'*-acylthiourea ligands  
*Eur. J. Inorg. Chem.* (10), 1406–1413 (2017)
- 92. Wilke**, Timm ; **Dege**, Janina ; **Waitz**, Thomas :  
Experimente zu Eigenschaften von Nanomaterialien in Chemieunterricht und Schülerlabor  
*CHEMKON* **24**(4), 209–226 (2017)
- 93. Wilting**, Alexander ; **Stolper**, Thorsten ; **Mata**, Ricardo A. ; **Siewert**, Inke :  
Dinuclear rhenium complex with a proton responsive ligand as a redox catalyst for the electrochemical CO<sub>2</sub> reduction  
*Inorg. Chem.* **56**(7), 4176–4185 (2017)