

Liste der wissenschaftlichen Veröffentlichungen

(Stand: August 2022)

Ein Korrespondenzautor ist mit * gekennzeichnet.

I. Originalarbeiten:

1. P. Jutzi,* U. Siemeling
Diels-Alder-Reaktionen eines zweilagigen, cyclophanoiden Cyclopentadienons:
Ein neuartiger Zugang zu $[n.n]$ Paracyclophanen
Chem. Ber. **1989**, 122, 993.
2. P. Jutzi,* U. Siemeling, A. Müller, H. Bögge
Binuclear Transition Metal Complexes of Cyclophanoid Cyclopentadienone and
Cyclopentadienyl Ligands
Organometallics **1989**, 8, 1744.
3. U. Siemeling,* P. Jutzi
Trinuclear Homo- and Heterometallic Complexes of a Doubly Bridged
Cyclopentadienyl Ligand
Chem. Ber. **1992**, 125, 31.
4. U. Siemeling,* P. Jutzi, B. Neumann, H.-G. Stämmler, M. B. Hursthouse
Binuclear Metal Complexes of a Doubly Bridged Cyclopentadienyl Ligand
Organometallics **1992**, 11, 1328.
5. D. N. Williams, J. P. Mitchell, A. D. Poole, U. Siemeling, W. Clegg,
D. C. R. Hockless, P. A. O'Neil, V. C. Gibson*
Half-sandwich Imido Complexes of Niobium and Tantalum
J. Chem. Soc., Dalton Trans. **1992**, 739.
6. U. Siemeling, V. C. Gibson*
Synthesis and characterization of the paramagnetic niobium(III) complex
 $[\text{Nb}(\eta\text{-C}_5\text{Me}_5)\text{Cl}_2(\text{PMe}_3)_2]$ and its reaction with carbon monoxide
J. Organomet. Chem. **1992**, 424, 159.
7. U. Siemeling, V. C. Gibson*
Pentamethylcyclopentadienyl niobium(III) nitrene complexes containing phosphine,
carbonyl, olefin and acetylene ligands
J. Organomet. Chem. **1992**, 426, C25.
8. U. Siemeling
Cyclopentadienyl-Liganden mit hydrophilen Tentakeln
J. Organomet. Chem. **1992**, 429, C14.
9. U. Siemeling
 $\text{C}_5\text{Me}_4(\text{CH}_2)_3(\text{OCH}_2\text{CH}_2)_3\text{OMe}$: A Tentacle-bearing Cyclopentadienyl Ligand and its
Use in Complex Chemistry
J. Chem. Soc., Chem. Commun. **1992**, 1335.
10. J. K. Cockcroft, V. C. Gibson,* J. A. K. Howard, A. D. Poole, U. Siemeling,
C. Wilson
 η^2 -Benzyne and η^1 -Benzylidene Complexes of Niobium with Ancillary Imido Ligands
J. Chem. Soc., Chem. Commun. **1992**, 1668.
11. U. Siemeling, V. C. Gibson*
Half-sandwich Chalcogenido Complexes of Niobium(V)
J. Chem. Soc., Chem. Commun. **1992**, 1670.
12. U. Siemeling,* B. Neumann, H.-G. Stämmler
Zur Komplexchemie von Cyclopentadienyl-Liganden mit Oligoethylenglycolether-
Tentakeln
Chem. Ber. **1993**, 126, 1311.
13. V. C. Gibson,* A. D. Poole, U. Siemeling, D. N. Williams
Niobium and tantalum methyl complexes containing imido and cyclopentadienyl
ligands. Crystal structure of $[\text{Nb}(\eta\text{-C}_5\text{H}_5)(\text{NBu}^t)(\text{Me})(\text{Cl})]$.
J. Organomet. Chem. **1993**, 462, C12.

14. U. Siemeling,* P. Jutzi, E. Bill, A. X. Trautwein
Zu Metall-Metall-Wechselwirkungen in Komplexen eines doppelt
Dimethylsilandiyl-verbrückten Dicyclopentadienyl-Liganden
J. Organomet. Chem. **1993**, 463, 151.
15. U. Siemeling,* R. Krallmann, P. Jutzi, B. Neumann, H.-G. Stammler
[3]Ferrocenophanes Bearing the Tetramethyldisiloxane Bridge: Synthesis and
Molecular Structure
Monatsh. Chem. **1994**, 125, 579.
16. W. Dröge-Laser, U. Siemeling, A. Pühler,* I. Broer
The Metabolites of the Herbicide L-Phosphinothricin (Glufosinate): Identification,
Stability, and Mobility in Transgenic, Herbicide-Resistant, and Untransformed Plants
Plant Physiol. **1994**, 105, 159.
17. U. Siemeling,* T. Redecker, B. Neumann, H.-G. Stammler
Crystal Structure of Isopropyllithium
J. Am. Chem. Soc. **1994**, 116, 5507.
18. U. Siemeling,* B. Neumann, H.-G. Stammler
A Pentamethylcyclopentadienyl Ligand Functionalized with a Pendant Pyridyl Group;
Crystal Structure of Its Ferrocene-Type Iron Complex
Z. Naturforsch., Teil B: Chem. Sci. **1994**, 49, 683.
19. U. Siemeling,* G. Hüffmann
Aspects of the chemistry of the mixed ferrocene
[MeO(CH₂CH₂O)₃(CH₂)₃C₅Me₄]Fe(C₅H₅). Generation of the unusual
 α -ferrocenyl carbocation {[MeO(CH₂CH₂O)₃(CH₂)₃C₅Me₄]Fe(C₅H₄CH₂)}⁺
J. Organomet. Chem. **1994**, 475, 229.
20. V. C. Gibson, R. Gobetto, R. K. Harris,* C. Langdale-Brown, U. Siemeling
Niobium-phosphorus coupling constants
J. Organomet. Chem. **1994**, 479, 207.
21. U. Siemeling,* U. Vorfeld, B. Neumann, H.-G. Stammler
Pyridyl-functionalised Cyclopentadienyl Ligands: Building Blocks for Oligonuclear
Organometallic Assemblies
Chem. Ber. **1995**, 128, 481.
22. U. Siemeling,* T. Türk, U. Hammermeister
Synthesis of 2-(2-Methoxyethyl)- and 2-(2-Thiomethoxyethyl)-aniline and Related
Compounds
Monatsh. Chem. **1995**, 126, 725.
23. U. Siemeling
[MeO(CH₂CH₂O)₃(CH₂)₃C₅Me₄]FeCl: A Halfsandwich Iron(II) Chloride Complex of
Remarkable Stability
Chem. Ber. **1995**, 128, 1135.
24. W. Clegg, M. R. J. Elsegood, V. C. Gibson,* C. Redshaw, U. Siemeling,* T. Türk
Bridged Bis(imido)molybdenum Complexes: Isolobal Analogues of
ansa-Zirconocenes and Bizirconocenes
J. Chem. Soc., Dalton Trans. **1996**, 4513.
25. U. Siemeling
Organometallic compounds as complexing agents: a rare example of a crystalline
alkali metal podate
Polyhedron **1997**, 16, 1513.
26. U. Siemeling,* B. Neumann, H.-G. Stammler
First Example of a High-yield *Shapiro* Reaction with a Substrate Containing
Only Tertiary α -Carbon Atoms
J. Org. Chem. **1997**, 62, 3407.
27. U. Siemeling,* U. Vorfeld, B. Neumann, H.-G. Stammler
Cuprophilicity? a rare example of a ligand-unsupported Cu^I-Cu^I interaction
J. Chem. Soc., Chem. Commun. **1997**, 1723.

28. B. Neumann, U. Siemeling,* H.-G. Stammler, U. Vorfeld, J. G. P. Delis, J. Fraanje, K. Goubitz, P. W. N. M. van Leeuwen, K. Vrieze, P. Zanello, F. Fabrizi de Biani
Co-ordination chemistry of octamethyl-5,5'-di(2-pyridyl)ferrocene
J. Chem. Soc., Dalton Trans. **1997**, 4705.
29. M. C. W. Chan, J. M. Cole, V. C. Gibson,* J. A. K. Howard, C. Lehmann, A. D. Poole, U. Siemeling
Half-sandwich imido complexes of niobium bearing alkyne, benzyne and benzyldiene ligands: relatives of the zirconocene family
J. Chem. Soc., Dalton Trans. **1998**, 103.
30. U. Siemeling,* U. Vorfeld, B. Neumann, H.-G. Stammler
Bis(trimethylsilyl)amido-(η^5 -pentamethylcyclopentadienyl)iron(II):
A Diamagnetic 14-Electron Complex with "Pogo-stick" Structure
Organometallics **1998**, 17, 483.
31. U. Siemeling,* T. Türk, W. W. Schoeller, C. Redshaw, V. C. Gibson
Benefits of the Chelate Effect: Preparation of an Unsymmetrical *ansa*-
Bis(imido)molybdenum Complex Containing a Seven-Membered Chelate Ring
Inorg. Chem. **1998**, 37, 4738.
32. U. Siemeling,* U. Vorfeld, B. Neumann, H.-G. Stammler, P. Zanello, F. Fabrizi de Biani
Terpyridines Functionalised with Ferrocenyl Groups of Different Redox Potential
Eur. J. Inorg. Chem. **1999**, 1.
33. U. Siemeling,* A. Stammler, H.-G. Stammler, O. Kuhnert
Synthesis and Structure of $[\text{NbCl}_3(\text{NPPh}_2\text{Fc})_2]$: The First Example of a Complex
Containing a Redox-functionalised Phosphaneiminato Ligand
Z. Anorg. Allg. Chem. **1999**, 625, 845.
34. U. Siemeling,* B. Neumann, H.-G. Stammler, O. Kuhnert
Molybdenum complexes containing ferrocenyl-functionalized arylimido ligands;
crystal structure of 2,6- Pr^i_2 -4-Fc-C $\equiv$ C-C $_6$ H $_2$ N(SiMe $_3$) $_2$
Polyhedron **1999**, 18, 1815.
35. U. Siemeling,* B. Neumann, H.-G. Stammler, O. Kuhnert
Synthesis and Structure of $[\text{NbCl}_3\{\text{[NPPh}_2(\text{C}_5\text{H}_4)]_2\text{Fe}\}]$: The First Structurally
Characterised Complex Containing a Chelating Di(phosphaneiminato) Ligand
Z. Anorg. Allg. Chem. **2000**, 626, 825.
36. U. Siemeling,* L. Kölling, A. Stammler, H.-G. Stammler, E. Kaminski, G. Fink
Polymerisation of acrylonitrile with di(organoimido)chromium(VI) complexes
J. Chem. Soc., Chem. Commun. **2000**, 1177.
37. U. Siemeling,* U. Vorfeld, B. Neumann, H.-G. Stammler
(THF) $_3$ LiCl as a Ligand for Low-coordinate Fe(II): Crystal Structure of
 $[(\text{Me}_3\text{Si})_2\text{N}]_2\text{Fe}(\mu\text{-Cl})\text{Li}(\text{THF})_3$
Inorg. Chem. **2000**, 39, 5159.
38. U. Siemeling,* O. Kuhnert, B. Neumann, A. Stammler, H.-G. Stammler, B. Bildstein, M. Malaun, P. Zanello
First Examples of a New Family of Redox-Functionalised Chelate Complexes
Based on a 1,1'-Ferrocenediyl-Bridged Di(amido) Ligand
Eur. J. Inorg. Chem. **2001**, 913.
39. U. Siemeling,* R. R. Schrock, A. Stammler, H.-G. Stammler, O. Kuhnert
Ferrocenyl-Functionalised Molybdenum Imido Complexes: An Approach to
Redox-Tunable Olefin Polymerisation Catalysts
Z. Anorg. Allg. Chem. **2001**, 627, 925.
40. U. Siemeling,* U. Vorfeld, B. Neumann, H.-G. Stammler, M. Fontani, P. Zanello
Synthesis and Crystal Structure of 1,1'-Bis[4-(2,2':6',2''-terpyridin-4'-yl)phenyl]-
octamethylferrocene
J. Organomet. Chem. **2001**, 637–639, 733.

41. U. Siemeling,* B. Neumann, H.-G. Stammler, A. Salmon
Octamethyl-1,1'-di(2-pyridyl)ferrocene: A Redox-Active Ligand with a Pronounced Selectivity for Divalent Metal Ions
Z. Anorg. Allg. Chem. **2002**, 628, 2315.
42. U. Siemeling,* L. Kölling, A. Stammler, H.-G. Stammler
Ansa-di(phosphaneiminato)titanium chelates: novel isolobal analogues of ansa-titanocene derivatives
J. Chem. Soc., Dalton Trans. **2002**, 3277.
43. U. Siemeling,* T. Türk, U. Vorfeld, H. Fink
Selective Reduction of an Aromatic Nitro Group to an Azoxy Unit in the Presence of an Aliphatic Nitro Group
Monatsh. Chem. **2003**, 134, 419.
44. U. Siemeling,* J. Vor der Brüggen, U. Vorfeld, B. Neumann, A. Stammler, H.-G. Stammler, A. Brockhinke, R. Plessow, P. Zanello, F. Laschi, F. Fabrizi de Biani, M. Fontani, S. Steenken, M. Stapper, G. Gurzadyan
Ferrocenyl-Functionalised Terpyridines and Their Transition-Metal Complexes: Syntheses, Structures, Spectroscopic, and Electrochemical Properties
Chem. Eur. J. **2003**, 9, 2819.
45. U. Siemeling,* L. Kölling, O. Kuhnert, B. Neumann, A. Stammler, H.-G. Stammler, G. Fink, E. Kaminski, A. Kiefer, R. R. Schrock
Transition Metal Complexes Containing Functionalised Organoimido and Phosphaneiminato Ligands
Z. Anorg. Allg. Chem. **2003**, 629, 781.
46. U. Siemeling,* J. Vor der Brüggen, U. Vorfeld, A. Stammler, H.-G. Stammler
Large Scale Synthesis of 4'-(4-Bromophenyl)-2,2':6',2''-terpyridine and Nature of the Mysterious Green By-product
Z. Naturforsch., Teil B: Chem. Sci. **2003**, 58, 443.
47. U. Siemeling,* T.-C. Auch, O. Kuhnert, M. Malaun, H. Kopacka, B. Bildstein*
1,1'-Di(arylamino)ferrocenes. A New Family of Privileged [N,N] Ligands with Tunable Steric Control for Applications in Homogeneous Organometallic Catalysis and Coordination Chemistry
Z. Anorg. Allg. Chem. **2003**, 629, 1334.
48. T. Weidner, J. Vor der Brüggen, U. Siemeling, F. Träger*
Self-Assembled Nanostructures of Redox-Functionalized Terpyridines Monitored by Optical Second Harmonic Generation
Appl. Phys. B. **2003**, 77, 31.
49. U. Siemeling,* I. Scheppelmann, B. Neumann, A. Stammler, H.-G. Stammler, J. Frelek
Spontaneous chiral resolution of a coordination polymer with distorted helical structure consisting of achiral building blocks
Chem. Commun. **2003**, 2236.
50. F. Hamelmann,* A. Brechling, A. Aschentrup, U. Heinzmann, P. Jutzi, J. Sandrock, U. Siemeling, T. Ivanova, A. Szekeres, K. Gesheva
Thin molybdenum oxide films produced from molybdenum pentacarbonyl 1-methylbutylisonitrile with remote plasma CVD
Thin Solid Films **2004**, 446, 167.
51. F. Hamelmann,* U. Heinzmann, U. Siemeling,* F. Tönsmann, J. Vor der Brüggen
Light-stimulated switching of azobenzene-containing self-assembled monolayers
Appl. Surf. Sci. **2004**, 222, 1.
52. V. C. Gibson, C. Redshaw,* W. Clegg, M. R. J. Elsegood, U. Siemeling, T. Türk
Synthesis and X-Ray crystal structures of hydridotris(3,5-dimethylpyrazolyl)borate (Tp') molybdenum(VI) bis(imido) complexes
Polyhedron **2004**, 23, 189.
53. U. Siemeling,* I. Scheppelmann, B. Neumann, H.-G. Stammler, W. W. Schoeller
Cyclopentadienone-like Behavior of Fluorenone and 4,5-Diazafluoren-9-one
Organometallics **2004**, 23, 626.

54. U. Siemeling,* I. Scheppelmann, B. Neumann, H.-G. Stämmler, J. Heinze
The Use of 2,5-Diphenyl-3,4-di(2-pyridyl)cyclopenta-2,4-dien-1-one as a Redox-active Chelating Ligand
Chem. Eur. J. **2004**, 10, 5661.
55. U. Siemeling*, D. Rother, C. Bruhn, H. Fink, T. Weidner, F. Träger, A. Rothenberger, D. Fenske, A. Priebe, J. Maurer, R. Winter
The Interaction of 1,1'-Diisocyanoferrocene with Gold: Formation of Monolayers and Polymerization of an Auophilic Ferrocenophane
J. Am. Chem. Soc. **2005**, 127, 1102.
56. U. Siemeling,* K. Bausch
Redox-functionalised ligands: a 1,10-phenanthroline carrying two ferrocenyl groups
Inorg. Chim. Acta **2005**, 358, 2146.
57. U. Siemeling,* K. Bausch, H. Fink, C. Bruhn, M. Baldus, B. Angerstein, R. Brockhinke, A. Brockhinke*
Platinum(II) 1,10-phenanthroline complexes of acetylides containing redox-active groups
Dalton Trans. **2005**, 2365.
58. U. Siemeling,* F. Bretthauer, C. Bruhn
Hydrogen Bonds as Essential Elements in the Crystal Structures of Three Piperidinium Thiotungstates
Z. Anorg. Allg. Chem. **2006**, 632, 1027.
59. T. Weidner, A. Krämer, C. Bruhn, M. Zharnikov, A. Shaporenko, U. Siemeling,* F. Träger*
Novel Tripod Ligands for Prickly Self-Assembled Monolayers
Dalton Trans. **2006**, 2767.
60. U. Siemeling,* S. Tomm, C. Bruhn
Ferrocene derivatives containing pyrazinium and quinoxalinium units
J. Organomet. Chem. **2006**, 691, 5056.
61. C. Senft, U. Siemeling*
Im Reich der bunten Zwerge – Gold-Nanopartikel im Schulversuch
Naturwiss. Unterr., Chem. **2007**, 18, 40.
62. U. Siemeling,* T.-C. Auch, S. Tomm, H. Fink, C. Bruhn, B. Neumann, H.-G. Stämmler
Zirconium Chelates of a Bulky Ferrocene-based Diamido Ligand
Organometallics **2007**, 26, 1112.
63. U. Siemeling,* D. Rother, C. Bruhn
"Schizoid" reactivity of 1,1'-diisocyanoferrocene
Chem. Commun. **2007**, 4227.
64. C. G. Yan,* X. K. Song, Q. F. Wang, J. Sun, U. Siemeling,* C. Bruhn
One-step synthesis of polysubstituted benzene derivatives by multi-component cyclization of α -bromoacetate, malononitrile and aromatic aldehydes
Chem. Commun. **2008**, 1440.
65. U. Siemeling,* T. Klemann, C. Bruhn, B. Neumüller, K. Dehnicke
Chelate Complexes of the Pyrid-2-yl Analogue of Tetracyclone
Z. Anorg. Allg. Chem. **2008**, 634, 895.
66. T. Weidner, N. Ballav, M. Zharnikov, A. Priebe, N. J. Long, J. Maurer, R. Winter, A. Rothenberger, D. Fenske, D. Rother, C. Bruhn, H. Fink, U. Siemeling*
Dipodal Ferrocene-Based Adsorbate Molecules for Self-Assembled Monolayers on Gold
Chem. Eur. J. **2008**, 14, 4346.
67. T.-C. Auch, H. Braunschweig,* K. Radacki, R. Sigritz, U. Siemeling,* S. Stellwag
Synthesis and Crystal Structure of 1,3-Diphenyl-2-ferrocenyl-1,2,3-Diazaborena-[3]-ferrocenophane
Z. Naturforsch., Teil B: Chem. Sci. **2008**, 63, 920.

68. T. Weidner,* F. Bretthauer, N. Ballav, H. Motschmann, H. Orendi, C. Bruhn, U. Siemeling, M. Zharnikov*
Correlation between the Molecular Structure and Photoresponse in Aliphatic Self-Assembled Monolayers with Azobenzene Tailgroups
Langmuir **2008**, 24, 11691.
69. U. Siemeling,* D. Rother, C. Bruhn
Reactions of Gold(I) Acetylides with 1,1'-Diisocyanoferrocene: from Orthodox to Unorthodox Behavior
Organometallics **2008**, 27, 6419.
70. U. Siemeling,* C. Bruhn, M. Meier, C. Schirmmacher
Preparation and Characterisation of Iodo-functionalised Azobenzene Derivatives of the Type I-*p*-C₆H₄-N=N-*p*-C₆H₄-X
Z. Naturforsch., Teil B: Chem. Sci. **2008**, 63, 1395.
71. U. Siemeling,* C. Färber, C. Bruhn
A stable crystalline N-heterocyclic carbene with a 1,1'-ferrocenediyl backbone
Chem. Commun. **2009**, 98.
72. F. Hubenthal,* N. Borg, T. Weidner, U. Siemeling, F. Träger
Gold nanoparticle growth on self-assembled monolayers of ferrocenyl-substituted terpyridine on graphite
Appl. Phys. A **2009**, 94, 11.
73. U. Siemeling,* D. Rother
Evaluation of Heterocumulenine Ferrocene Derivatives for "Click" Chemistry Type Reactions
J. Organomet. Chem. **2009**, 694, 1055.
74. U. Siemeling,* A. Girod, D. Rother, C. Bruhn
Aspects of the Coordination Chemistry of 1,1'-Di(benzothiazol-2-ylthio)ferrocene
Z. Anorg. Allg. Chem. **2009**, 635, 1402.
75. U. Siemeling,* C. Bruhn, F. Bretthauer, M. Borg, F. Träger, F. Vogel, W. Azzam, M. Badin, T. Strunskus, C. Wöll
Photoresponsive SAMs on gold fabricated from azobenzene-functionalised asparagusic acid derivatives
Dalton Trans. **2009**, 8593.
76. U. Siemeling,* C. Färber, M. Leibold, C. Bruhn, P. Mücke, R. F. Winter, B. Sarkar, M. von Hopffgarten, G. Frenking
Six-Membered N-Heterocyclic Carbenes with a 1,1'-Ferrocenediyl Backbone: Bulky Ligands with Strong Electron-Donor Capacity and Unusual Non-Innocent Character
Eur. J. Inorg. Chem. **2009**, 4607.
77. T. Weidner,* N. Ballav, U. Siemeling, D. Troegel, T. Walter, R. Tacke,* D. G. Castner, M. Zharnikov*
Tripodal Binding Units for Self-Assembled Monolayers on Gold: A Comparison of Thiol and Thioether Headgroups
J. Phys. Chem. C **2009**, 113, 19609.
78. U. Siemeling,* F. Bretthauer, C. Bruhn
Oxidative Addition of Asparagusic Acid Based Disulfides to Pt⁰
J. Organomet. Chem. **2010**, 695, 626.
79. U. Siemeling,* S. Rittinghaus, T. Weidner,* J. Brison, D. Castner
COOH-terminated SAMs on gold fabricated from an azobenzene derivative with a 1,2-dithiolane headgroup
Appl. Surf. Sci. **2010**, 256, 1832.
80. U. Siemeling,* L. R. R. Klapp, C. Bruhn
Tri- and Tetracoordinate Copper(I) Complexes of 1,1'-Diisocyanoferrocene
Z. Anorg. Allg. Chem. **2010**, 636, 539.
81. P. Štěpnička,* J. Schulz, T. Klemann, U. Siemeling, I. Císařová
Synthesis, Structural Characterization and Catalytic Evaluation of Palladium Complexes with Homologous Ferrocene-Based Pyridylphosphine Ligands
Organometallics **2010**, 29, 3187.

82. U. Siemeling,* F. Bretthauer, C. Bruhn, T.-P. Feller, W.-L. Tong, M. C. W. Chan
Gold Nanoparticles Bearing an α -Lipoic Acid-based Ligand Shell: Synthesis, Model
Complexes and Studies Concerning Phosphorescent Platinum(II) Functionalisation
Z. Naturforsch., Teil B: Chem. Sci. **2010**, *65*, 1089.
83. T. Weidner,* M. Zharnikov, J. Hoßbach, D. G. Castner, U. Siemeling*
Adamantane-Based Tripodal Thioether Ligands Functionalised with a Terminal
Redox-Active Ferrocenyl Moiety for Self-Assembled Monolayers
J. Phys. Chem. C **2010**, *114*, 14975.
84. U. Siemeling,* C. Färber, C. Bruhn, M. Leibold, D. Selent, W. Baumann,
M. von Hopffgarten, C. Goedecke, G. Frenking*
N-heterocyclic carbenes which readily add ammonia, carbon monoxide and other
small molecules
Chem. Sci. **2010**, *1*, 697.
85. C. Goedecke, M. Leibold, U. Siemeling, G. Frenking*
When Does Carbonylation of Carbenes Yield Ketenes? A Theoretical Study with
Implications for Synthesis
J. Am. Chem. Soc. **2011**, *133*, 3557.
86. U. Siemeling,* T. Klemann, C. Bruhn, J. Schulz, P. Štěpnička
The coordination behaviour of ferrocene-based pyridylphosphine ligands towards Zn^{II},
Cd^{II} and Hg^{II}
Dalton Trans. **2011**, *40*, 4722.
87. U. Siemeling,* C. Schirmacher, U. Glebe, C. Bruhn, J. E. Baio, L. Árnadóttir,
D. G. Castner, T. Weidner
Phthalocyaninato complexes with peripheral alkylthio chains: disk-like adsorbate
species for the vertical anchoring of ligands onto gold surfaces
Inorg. Chim. Acta **2011**, *374*, 302.
88. T. Weidner,* J. E. Baio, A. Mundstock, C. Große, S. Karthäuser, C. Bruhn,
U. Siemeling*
NHC-Based Self-Assembled Monolayers on Solid Gold Substrates
Aust. J. Chem. **2011**, *64*, 1177.
89. U. Siemeling,* T. Klemann, C. Bruhn, J. Schulz, P. Štěpnička
The Coordination Behaviour of Ferrocene-based Pyridylphosphine Ligands towards
Ag^I and Au^I
Z. Anorg. Allg. Chem. **2011**, *637*, 1824.
90. C. Färber, M. Leibold, C. Bruhn, M. Maurer, U. Siemeling*
Nitron: a stable N-heterocyclic carbene that has been commercially available for more
than a century
Chem. Commun. **2012**, *48*, 227.
91. T. Weidner, J. E. Baio, J. Seibel, U. Siemeling*
Dithienylcyclopentene-functionalised subphthalocyaninatoboron complexes:
photochromism, luminescence modulation and formation of self-assembled
monolayers on gold
Dalton Trans. **2012**, *41*, 1553.
92. U. Siemeling,* H. Memczak, C. Bruhn, F. Vogel, F. Träger, J. E. Baio, T. Weidner
Zwitterionic dithiocarboxylates derived from N-heterocyclic carbenes: coordination to
gold surfaces
Dalton Trans., **2012**, *41*, 2986.
93. U. Siemeling,* C. Färber, C. Bruhn, S. Fürmeier, T. Schulz, M. Kurlmann, S. Tripp
Group 10 Metal Complexes of a Ferrocene-based N-Heterocyclic Carbene:
Syntheses, Structures and Catalytic Applications
Eur. J. Inorg. Chem. **2012**, 1413.
94. T. Schulz, M. Leibold, C. Färber, M. Maurer, T. Porsch, M. C. Holthausen,
U. Siemeling*
Unexpected thermal decomposition of the "Alder carbene" (iPr₂N)₂C
Chem. Commun. **2012**, *48*, 9123.

95. U. Glebe, T. Weidner, J. E. Baio, C. Bruhn, A. Buchholz, W. Plass, S. Walleck, T. Glaser, U. Siemeling*
Self-assembled Monolayers of Single-molecule Magnets [Tb{Pc'(SR)₈}₂] on Gold
ChemPlusChem **2012**, *77*, 889.
96. U. Glebe, J. E. Baio, L. Árnadóttir, U. Siemeling, T. Weidner*
Molecular suction pads: Self-assembled monolayers of subphthalocyaninatoboron complexes [BCl{Subpc'(SR)₆}] on gold
ChemPhysChem **2013**, *14*, 1155.
97. T. Schulz, C. Färber, M. Leibold, C. Bruhn, W. Baumann, D. Selent, T. Porsch, M. C. Holthausen, U. Siemeling*
Carbonylation of the simplest persistent diaminocarbene
Chem. Commun. **2013**, *49*, 6834.
98. J. Stott, C. Bruhn, U. Siemeling*
Crystal Structures of the Gold Phosphinine Complexes [AuCl(C₅H₂P-2,6-Me₂-4-Ph)] and [AuCl(C₅H₂P-2,4,6-Ph₃)]
Z. Naturforsch. B: Chem. Sci. **2013**, *68*, 853.
99. L. R. R. Klapp, C. Bruhn, M. Leibold, U. Siemeling*
Ferrocene-based Bis(guanidine)s: Superbases for Tridentate *N,Fe,N*-Coordination
Organometallics **2013**, *32*, 5862.
100. C. Petkov, U. Glebe, E. Petkov, A. Pasquarelli, C. Pietzka, M. Veres, L. Himics, R. Merz, W. Kulisch, U. Siemeling, J. P. Reithmaier, C. Popov*
Grafting of manganese phthalocyanine on nanocrystalline diamond films
Phys. Status Solidi A **2013**, *210*, 2048.
101. S. Hitzel, C. Färber, C. Bruhn, U. Siemeling*
Reactions of [RuCl₂(PPh₃)₃] with Nitron and with the "Enders Carbene": Access to Ru^{III} NHC Complexes
Organometallics **2014**, *33*, 425.
102. T. Schulz, C. Färber, M. Leibold, C. Bruhn, P. Prochnow, J. E. Bandow, T. Schneider, T. Porsch, M. C. Holthausen, * U. Siemeling*
Diastereoselective synthesis of a bicyclic β-lactam with penicillin G-like spectrum of activity by carbonylation of an acyclic diaminocarbene
Chem. Commun. **2014**, *50*, 2341.
103. S. Rittinghaus, C. Färber, C. Bruhn, U. Siemeling*
Unsymmetrical *N*-heterocyclic carbenes with a 1,1'-ferrocenediyl backbone
Dalton Trans. **2014**, *43*, 3508.
104. M. Ritte, C. Bruhn, U. Siemeling*
Synthesis and Crystal Structures of the *P,N*-Substituted Ferrocenes [Fe{η⁵-C₅H₄-P(S)Ph₂}(η⁵-C₅H₄-NHCH₂tBu)] and [Fe(η⁵-C₅H₄-PPh₂)(η⁵-C₅H₄-NHCH₂tBu)]
Z. Naturforsch. B: Chem. Sci. **2014**, *69*, 906.
105. J. Bechter, C. Pietzka, C. Petkov, P. Reintanz, U. Siemeling, C. Popov, A. Pasquarelli*
Investigation of diamond electrodes for photo-electrochemistry
Phys. Status Solidi A **2014**, *211*, 2333.
106. A. R. Petrov, A. Derheim, J. Oetzel, M. Leibold, C. Bruhn, S. Scheerer, S. Oßwald, R. F. Winter, U. Siemeling*
A Stable Planar-chiral *N*-Heterocyclic Carbene with a 1,1'-Ferrocenediyl Backbone
Inorg. Chem. **2015**, *54*, 6657.
107. T. Schulz, D. Weismann, L. Wallbaum, R. Guthardt, C. Thie, M. Leibold, C. Bruhn, U. Siemeling*
New Stable and Persistent Acyclic Diaminocarbenes
Chem. Eur. J. **2015**, *21*, 14107.
108. C. Thie, C. Bruhn, U. Siemeling*
Ferrocene-Based *N*-Heterocyclic Carbenes with Functionalised Benzyl Substituents
Eur. J. Inorg. Chem. **2015**, 5457.

109. C. Petkov, P. M. Reintanz, W. Kulisch, A. K. Degenhardt, T. Weidner, J. E. Baio, R. Merz, M. Kopnarski, U. Siemeling, J. P. Reithmaier, C. Popov*
Functionalization of nanocrystalline diamond films with phthalocyanines
Appl. Surf. Sci. **2016**, 379, 415.
110. F. Ahrend, U. Glebe, L. Árnadóttir, J. E. Baio, D. A. Fischer, C. Jaye, B. O. Leung, A. P. Hitchcock, T. Weidner, U. Siemeling*, A. Ehresmann*
Magnetic field landscapes guiding the chemisorption of diamagnetic molecules
Langmuir **2016**, 32, 10491.
111. C. Thie, S. Hitzel, L. Wallbaum, C. Bruhn, U. Siemeling*
Coinage metal complexes of the carbenic tautomer of Nitron
J. Organomet. Chem. **2016**, 821, 112.
112. P. M. Reintanz, R. Guthardt, C. Bruhn, F. Mohr, U. Siemeling*
Phthalocyanine Derivatives with Eight Peripheral Long-Chain *n*-Alkylseleno Substituents
Eur. J. Inorg. Chem. **2016**, 5610.
113. M. Liebscher, C. Bruhn, U. Siemeling*, J. Baio, H. Lu, T. Weidner
The Interaction of 1,1'-Diphosphaferrocenes with Gold: Molecular Coordination Chemistry and Adsorption on Solid Substrates
Eur. J. Inorg. Chem. **2017**, 351.
114. J. Oetzel, N. Weyer, C. Bruhn, M. Leibold, B. Gerke, R. Pöttgen, M. Maier, R. F. Winter, M. C. Holthausen, U. Siemeling*
Redox-active N-Heterocyclic Germylenes and Stannylenes with a Ferrocene-1,1'-diyl Backbone
Chem. Eur. J. **2017**, 23, 1187.
115. S. Hitzel, C. Färber, C. Bruhn, U. Siemeling*
Phosphido complexes derived from 1,1'-ferrocenediyl-bridged secondary diphosphines
Dalton Trans. **2017**, 46, 6333.
116. C. Thie, C. Bruhn, M. Leibold, U. Siemeling*
Coinage Metal Complexes of the Carbenic Tautomer of a Conjugated Mesomeric Betaine Akin to Nitron
Molecules **2017**, 22, 1133.
117. K. Škoch, I. Císařová, J. Schulz, U. Siemeling, P. Štěpnička*
Synthesis and characterization of 1'-(diphenylphosphino)-1-isocyanoferrrocene, an organometallic ligand combining two different soft donor moieties, and its Group 11 metal complexes
Dalton Trans. **2017**, 46, 11339.
118. J. Volk, B. A. Correia Bicho, C. Bruhn, U. Siemeling*
N-heterocyclic germylenes and stannylenes of the type $[\text{Fe}\{(\eta^5\text{-C}_5\text{H}_4)\text{NR}\}_2\text{E}]$ with bulky alkyl substituents
Z. Naturforsch. B: Chem. Sci. **2017**, 72, 785.
119. C. Langen, C. Bruhn, U. Siemeling*
Synthesis and crystal structure of μ -[1,1'-di(mesitylphosphanido)ferrocene]bis- $[\eta^5\text{-cyclopentadienylnickel(II)}]$ tetrahydrofuran solvate, $\text{C}_{42}\text{H}_{48}\text{FeNi}_2\text{OP}_2$
Z. Kristallogr. – New Cryst. Struct. **2018**, 233, 459.
120. J. Oetzel, C. Bruhn, U. Siemeling*
On the Way to N-Heterocyclic Silylenes with a 1,1'-Ferrocenediyl Backbone: Synthesis and Structures of Silicon(IV) Compounds of the Type $[\text{Fe}\{(\eta^5\text{-C}_5\text{H}_4)\text{NR}\}_2\text{SiX}_2]$
Z. Anorg. Allg. Chem. **2018**, 644, 935.
121. B. A. Correia Bicho, C. Bruhn, R. Guthardt, N. Weyer, U. Siemeling*
 $[\text{Fe}\{(\eta^5\text{-C}_5\text{H}_4)\text{N}(\text{SiMe}_2\text{tBu})\}_2\text{Al}]_2$: A Stable Redox-Functionalised Dialumane(4)
Z. Anorg. Allg. Chem. **2018**, 644, 1329.

122. L. Wallbaum, D. Weismann, D. Löber, C. Bruhn, P. Prochnow, J. E. Badow, U. Siemeling*
Stable and Persistent Acyclic Diaminocarbenes with Cycloalkyl Substituents and Their Transformation to β -Lactams by Uncatalysed Carbonylation with CO
Chem. Eur. J. **2019**, 25, 1488.
123. N. Weyer, R. Guthardt, B. A. Correia Bicho, J. Oetzel, C. Bruhn, U. Siemeling*
Stable N-Heterocyclic Germylenes of the Type $[\text{Fe}\{\{\eta^5\text{-C}_5\text{H}_4\}\text{NR}\}_2\text{Ge}]$ and Their Oxidation Reactions with Sulfur, Selenium, and Diphenyl Diselenide
Z. Anorg. Allg. Chem. **2019**, 645, 188.
124. R. Guthardt, J. Oetzel, J. I. Schweizer, C. Bruhn, R. Langer, M. Maurer, J. Vícha, P. Shestakova, M. C. Holthausen,* U. Siemeling*
Reactive Dimerization of an N-heterocyclic Plumbylene: C–H Activation with Pb^{II}
Angew. Chem. **2019**, 131, 1401.
Angew. Chem. Int. Ed. **2019**, 58, 1387.
125. L. Wallbaum, T. Schulz, C. Bruhn, U. Siemeling*
The Reaction of a Particularly Electrophilic Acyclic Diaminocarbene with Carbon Monoxide: Formation of β - and γ -Lactams
Z. Naturforsch. B: Chem. Sci. **2019**, 74, 221.
126. M. Jonek, H. Buhl, M. Leibold, C. Bruhn, U. Siemeling*
Evaluation of Benzthiazolidine-Based Formamidinium Salts for the Synthesis of Penem-Type β -Lactams by Uncatalysed Carbonylation of Acyclic Diaminocarbenes
Z. Naturforsch. B: Chem. Sci. **2019**, 74, 365.
127. K. Kureja, J. Zinke, C. Bruhn, U. Siemeling*
Imidazolium-benzimidazoles as convenient sources of donor-functionalised normal and abnormal N-heterocyclic carbenes
Chem. Commun. **2019**, 55, 9705.
128. K. Kureja, C. Bruhn, Mark R. Ringenberg,* U. Siemeling*
(Benz-)Imidazolin-2-ylidene-benzimidazolatonickel(II) chelates: Syntheses, Structures, and Tuning Non-Innocent Chelate Ligand Behavior
Inorg. Chem. **2019**, 58, 16256.
129. R. Guthardt, D. Bachmann, C. Bruhn, U. Siemeling*
Oxidation Reactions of the N-Heterocyclic Stannylenes $[\text{o-C}_6\text{H}_4(\text{NSi}^t\text{BuMe}_2)_2]\text{Sn}$ and $[\{\text{Fe}(\eta^5\text{-C}_5\text{H}_4\text{-NSi}^t\text{BuMe}_2)_2\}\text{Sn}]$ with Sulfur, Selenium, and Diphenyl Diselenide
Z. Anorg. Allg. Chem. **2020**, 646, 761.
130. R. Guthardt, C. Bruhn, C. Färber, U. Siemeling*
Effect of the Lead(II) Bond Angle on the Reactivity of Diaminoplumbynes towards Ammonia: From Inertness to Immediate Ammonolysis
Organometallics **2020**, 39, 4174.
131. P. Stegner, C. Färber, J. Oetzel, U. Siemeling, M. Wiesinger, J. Langer, S. Pan, N. Holzmann, G. Frenking, U. Abold, B. Sarkar, S. Harder*
d-d Dative Bonding Between Iron and the Alkaline Earth Metals Calcium, Strontium and Barium
Angew. Chem. **2020**, 132, 14723.
Angew. Chem. Int. Ed. **2020**, 59, 14615.
132. N. Weyer, M. Heinz, J. I. Schweizer, C. Bruhn, M. C. Holthausen,* U. Siemeling*
A Stable N-Heterocyclic Silylene with a 1,1'-Ferrocenediyl Backbone
Angew. Chem. **2021**, 133, 2656.
Angew. Chem. Int. Ed. **2021**, 60, 2624.
133. R. Guthardt, C. Bruhn, U. Siemeling*
N-heterocyclic olefins as dative carbon donor ligands for diaminoplumbynes: syntheses and crystal structures of adducts with 1,3,4,5-tetramethyl-2-methylene-imidazoline
Polyhedron **2021**, 194, 114959.
134. K. Kureja, J. Zinke, C. Bruhn, U. Siemeling*
Homodinuclear Rh^{I} and Ir^{I} Complexes Derived from Imidazolium-Benzimidazoles
Z. Anorg. Allg. Chem. **2021**, 647, 1173.

135. N. Weyer, M. Heinz, C. Bruhn, M. C. Holthausen,* U. Siemeling*
Reactivity of an H-heterocyclic silylene with a 1,1'-ferrocenediyl backbone towards carbonyl compounds, including carbon suboxide
Chem. Commun. **2021**, 57, 9378.
136. R. Guthardt, J. Blanckenberg, C. Bruhn, U. Siemeling*
Planar-chiral 1,1-diaminoferrocenes
Chem. Commun. **2021**, 57, 12984.
137. R. Guthardt, J. Mellin, C. Bruhn, U. Siemeling*
1,1'-Ferrocenylen-Bridged Bis(N-Heterocyclic Olefin) Derivatives
Eur. J. Inorg. Chem. **2022**, e202100903.
138. B. A. Correia Bicho, R. Guthardt, C. Bruhn, D. Großhennig, T. Orth, F. Pfeiffer, U. Siemeling*
N-tert-Alkyl-substituted N-Heterocyclic Carbenes with a 1,1'-Ferrocenediyl Backbone
Eur. J. Inorg. Chem. **2022**, e202101014.
139. R. Guthardt, L. Oetzel, T. Lang, C. Bruhn, U. Siemeling*
Reactions of Mesityl Azide with Ferrocene-Based N-Heterocyclic Germylenes, Stannylenes and Plumbylenes, Including PPh₂-Functionalised Congeners
Chem. Eur. J. **2022**, 28, e202200996.
140. J. Volk, M. Heinz, M. Leibold, C. Bruhn, T. Bens, B. Sarkar, M. C. Holthausen, U. Siemeling*
A crystalline cyclic (alkyl)(amino)carbene with a 1,1'-ferrocenylen backbone
Chem. Commun. **2022**, DOI: 10.1039/D2CC03871D

II. „Highlights“:

1. U. Siemeling
Tellur – ein interessanter Partner für Übergangsmetalle:
Neues aus der Molekülchemie
Angew. Chem. **1993**, 105, 70; *Angew. Chem. Int. Ed. Engl.* **1993**, 32, 67.
2. U. Siemeling
Die erste Übergangsmetall-Germanium-Dreifachbindung
Angew. Chem. **1997**, 109, 859; *Angew. Chem. Int. Ed. Engl.* **1997**, 36, 831.
3. U. Siemeling
Yes They Can: Small Molecule Activation with Stable Diaminocarbenes
Aust. J. Chem. **2011**, 64, 1109.

III. Übersichtsartikel:

1. P. Jutzi,* U. Siemeling
Cyclopentadienyl compounds with nitrogen donors in the side-chain
J. Organomet. Chem. **1995**, 500, 175.
2. U. Siemeling
Chelate Complexes of Cyclopentadienyl Ligands Bearing Pendant O-Donors
Chem. Rev. **2000**, 100, 1495.
3. U. Siemeling
Funktionalisierte Liganden: von der Homogenkatalyse zu funktionalen Oberflächen
Telekommunikation Aktuell **2004**, 58, 51.
4. U. Siemeling
Redox-functionalised ligands: From homogeneous catalysis to nanostructures.
Z. Anorg. Allg. Chem. **2005**, 631, 2957.
5. U. Siemeling,* T.-C. Auch
1,1'-Di(heteroatom)-functionalised ferrocenes as [N,N], [O,O] and [S,S] chelate ligands in transition metal chemistry
Chem. Soc. Rev. **2005**, 34, 584.
6. U. Siemeling
Beflügelte Arbeitspferde! Stabile Diaminocarbene aktivieren kleine Moleküle.
labor&more **2012** (4), 20.

7. U. Siemeling
Singlet Carbenes Derived from Ferrocene and Closely Related Sandwich Complexes
Eur. J. Inorg. Chem. **2012**, 3523.

IV. Buchbeiträge:

1. U. Siemeling
On the Complex Chemistry of Cyclopentadienyl Ligands with Oligoethylene Glycol Ether Tentacles
in *Organosilicon Chemistry* (Hrsg.: N. Auner, J. Weis)
VCH, Weinheim, **1994**, S.193.
2. U. Siemeling
Reflektionen über den Prozeß vom wissenschaftlichen zum journalistischen Schreiben
in *Journalistisches Schreiben für Wissenschaftler* (Hrsg.: O. Gaus, J. Wildt)
Luchterhand, Neuwied, **2001**, S. 123.
3. F. Hamelmann,* A. Brechling, A. Aschentrup, U. Heinzmann, P. Jutzi, J. Sandrock, U. Siemeling
Thin tungsten and tungsten oxide films produced by tungsten pentacarbonyl pentylisonitrile in a remote plasma reactor.
Proc. Electrochem. Soc. **2003**, PV2003-8, S. 954.
4. T. Weidner, A. Krämer, J. Vor der Brüggen, U. Siemeling, F. Träger*
Self-assembly of highly rigid ferrocenyl nanostructures monitored by optical second harmonic generation
Proc. SPIE Int. Soc. Opt. Eng. **2004**, 5339, S. 611.
5. T. Weidner, B. Krohn, M. Trojtza, C. Bruhn, D. Rother, U. Siemeling, F. Träger*
Ferrocene-Based Monolayers: Self-Assembly via Rigid Bidentate Anchor Groups
Proc. SPIE Int. Soc. Opt. Eng. **2006**, 6106, S. 61061S.
6. U. Siemeling
Symmetric 1,1'-bidentate ferrocene ligands
in *Ferrocenes – Ligands, Materials, and Biomolecules* (Hrsg. P. Štěpnička)
Wiley, Chichester, **2008**, S. 141.
7. F. Vogel, F. Bretthauer, U. Siemeling, F. Träger*
Nanostructure formation by self-assembled monolayers: influence of the isomerization state of azobenzene ligands on monolayer formation
Proc. SPIE Int. Soc. Opt. Eng. **2011**, 7922, S. 79220G.
8. N. Lilichenko, R. Ossig, U. Glebe, U. Siemeling, F. Hubenthal, F. Träger*
SHG studies of self-assembled monolayers of phthalocyanines on gold
Proc. SPIE Int. Soc. Opt. Eng. **2013**, 8609, S. 860903/1.

V. Bücher:

1. R. Faust, G. Knaus, A. Maelicke, U. Siemeling (Hrsg.: H.-J. Quadbeck-Seeger)
Chemie-Rekorde: Menschen, Märkte, Moleküle
1. Aufl., Wiley-VCH, Weinheim, **1997**; 2. Aufl., Wiley-VCH, Weinheim, **1999**.
engl. Ausgabe: R. Faust, G. Knaus, U. Siemeling (Hrsg.: H.-J. Quadbeck-Seeger)
World Records in Chemistry
Wiley-VCH, Weinheim, **1999**.

VI. Patentschriften:

1. M. O. Kristen, B. Bildstein, M. Malaun, U. Siemeling, O. Kuhnert (BASF AG)
DE10017430, **2001**.
(EP1142899, US2002016256, JP2002020397)