

Publications (2001 to present)

Original Communications:

"Structural diversity in gold(I) complexes of 4-sulfanylbenzoic acid"

J.D.E.T. Wilton-Ely, A. Schier, N.W. Mitzel, H. Schmidbaur, J. Chem. Soc., Dalton Trans. **2001**, 1058-1062.

"Supramolecular chemistry of gold(I) thiocyanate complexes with thiophene, phosphine and isocyanide ligands, and the structure of 2,6-dimethylphenyl isocyanide"

T. Mathieson, A. Schier, H. Schmidbaur, J. Chem. Soc., Dalton Trans. **2001**, 1196-1200.

"Gold(I) organosulfinate and organosulfonate complexes"

P. Römbke, A. Schier, H. Schmidbaur, J. Chem. Soc., Dalton Trans. **2001**, 2482-2486.

"Two-, Three- and Four-Coordination at Gold(I) Supported by the Bidentate Selenium Ligand [Ph₂P(Se)NP(Se)Ph₂]⁻"

J.D.E.T. Wilton-Ely, A. Schier, H. Schmidbaur, Inorg. Chem. **40**, 4656-4661 (2001).

"The Effect of Hard and Soft Donors on Structural Motifs in (Isocyanide)gold(I) Complexes"

J.D.E.T. Wilton-Ely, H. Ehlich, A. Schier, H. Schmidbaur, Helv. Chim. Acta **84**, 3216-3232.

"Diversity in the Structural Chemistry of (Phosphine)gold(I) 1,2,4-Thiadiazole-2,5-dithiolates (Bismuthiolates I)"

J.D.E.T. Wilton-Ely, A. Schier, N.W. Mitzel, H. Schmidbaur, Inorg. Chem. **40**, 6266-6271 (2001).

"Thiolate Complexes of Gold(I) Based on a Tris(phosphine) Support"

J.D.E.T. Wilton-Ely, S. Hofreiter, N.W. Mitzel, H. Schmidbaur, Z. Naturforsch. **56b**, 1257-1263 (2001).

"The Close-Knit Supramolecular Network of Bis[(*tert*-butyl isocyanide)gold(I)] 1,3,4-Thiadiazole-2,5-disulfide"

J.D.E.T. Wilton-Ely, A. Schier, H. Schmidbaur, Organometallics **20**, 1895-1897 (2001).

"Metallophilicity: The Dimerization of Bis[(triphenylphosphine)gold(I)]-chloronium Cations"

A. Hamel, N.W. Mitzel, H. Schmidbaur, J. Am. Chem. Soc. **123**, 1506-1507 (2001).

"Ligand-Protected Strain-Free Diarylgermylenes"

G.L. Wegner, R.J.F. Berger, A. Schier, H. Schmidbaur, Organometallics **20**, 418-423 (2001).

"The Quest for Beryllium Peroxides"

R.J.F. Berger, M. Hartmann, P. Pyykkö, D. Sundholm, H. Schmidbaur, Inorg. Chem. **40**, 2270-2274 (2001).

"Tetraberyllium-oxo-hexa(arylcarboxylates)"

R.J.F. Berger, M.A. Schmidt, J. Jusélius, D. Sundholm, P. Sirsch, H. Schmidbaur, Z. Naturforsch. **56b**, 979-989 (2001).

"Cluster self-assembly of di[gold(I)]halonium cations"

H. Schmidbaur, A. Hamel, N.W. Mitzel, A. Schier, S. Nogai, PNAS **99**, 4916-4921 (2002).

"Hydrogen-bonded networks: (phosphine)gold(I) 4-amino-2-pyrimidine-thiolates"

J.D.E.T. Wilton-Ely, A. Schier, N.W. Mitzel, S. Nogai, H. Schmidbaur, J. Organomet. Chem. **643-644**, 313-323 (2002).

"Gold(I) Carboxylates and Fluorocarboxylates"

P. Römbke, A. Schier, H. Schmidbaur, Z. Naturforsch. **57b**, 605-609 (2002).

"New Pathways to Compact Tetragold(I) Bis(phenylene-1,2-dithiolate) Complexes with Tertiary Phosphine and Isonitrile Ligands"
H. Ehlich, A. Schier, H. Schmidbaur, Organometallics **21**, 2400-2406 (2002).

"Aurophilicity-Based One-Dimensional Arrays of Gold(I) Phenylene-1,3- and -1,4-dithiolates"
H. Ehlich, A. Schier, H. Schmidbaur, Inorg. Chem. **41**, 3721-3727 (2002).

"Implications of the Results of a Routine Structure Determination: Tris(triphenylphosphine)gold(I) Chloride Bis(dichloromethane)"
A. Hamel, A. Schier, H. Schmidbaur, Z. Naturforsch. **57b**, 877-881 (2002).

"Structural, Spectroscopic and Theoretical Studies of (tButyl-isocyanide)gold(I) Iodide"
R.-Y. Liau, T. Mathieon, A. Schier, R.J.F. Berger, N. Runeberg, H. Schmidbaur, Z. Naturforsch. **57b**, 881-889 (2002).

"Preparation and Crystal Structure of Bis(isocyanide)gold(I) Bis(phenylene-1,2-dithiolato)aurates(III)"
H. Ehlich, A. Schier, H. Schmidbaur, Z. Naturforsch. **57b**, 890-894 (2002).

"Bis(triphenylphosphoranylidene)ammonium Dicyanoaurate(I)"
R.-Y. Liau, H. Ehlich, A. Schier, H. Schmidbaur, Z. Naturforsch. **57b**, 1085-1089 (2002).

"(Benzene-1,3,5-triyl)tris[phosphine] and (Benzene-1,3,5-triyl)tris[phosphonic Acid]. Absence of Hydrogen Bonding in Solid Primary Phosphines"
S.A. Reiter, B. Assmann, S.D. Nogai, N.W. Mitzel, H. Schmidbaur, Helv. Chim. Acta **85**, 1140-1150 (2002).

"5-Organyl-5-phosphaspiro[4.4]nonanes: A Contribution to the Structural Chemistry of Spirocyclic Tetraalkylphosphonium Salts and Pentaalkylphosphoranes"
U. Monkowius, N.W. Mitzel, A. Schier, H. Schmidbaur, J. Amer. Chem. Soc. **124**, 6126-6132 (2002).

"Synthetic Pathways to Hydrogen-Rich Polysilylated Arenes from Trialkoxsilanes and Other Precursors"
O. Minge, N.W. Mitzel, H. Schmidbaur, Organometallics **21**, 680-684 (2002).

"The Molecular Structures of the Three Disilylbenzenes Determined in the Gas Phase, the Solid State and by *ab initio* Calculations"
N.W. Mitzel, P.T. Brain, M.A. Hofmann, D.W.H. Rankin, R. Schröck, H. Schmidbaur, Z. Naturforsch. **57b**, 202-214 (2002).

"Magnesium Anthranilate Dihydrate"
F. Wiesbrock, A. Schier, H. Schmidbaur, Z. Naturforsch. **57b**, 251-254 (2002).

"Preparation and Structure of Magnesium Bis(hydrogen beta-glutamate) Hexahydrate"
F. Wiesbrock, S. Nogai, A. Schier, H. Schmidbaur, Helv. Chim. Acta **85**, 1151-1159 (2002).

"Zinc and lithium hydrogen-beta-glutamate: large-pore network layer structures"
F. Wiesbrock, H. Schmidbaur, J. Chem. Soc., Dalton Trans. **2002**, 3201-3205.

"The Structural Chemistry of Lithium, Sodium and Potassium Anthranilate Hydrates"
F. Wiesbrock, H. Schmidbaur, J. Chem. Soc., Dalton, Trans. **2002**, 4703-4708.

"Stability of the Gold(I)-Phosphine Bond. A Comparison with other Group 11 Elements"
P. Schwerdtfeger, H.L. Hermann, H. Schmidbaur, Inorg. Chem. **41**, 1334-1342 (2003).

"Gold(I) thiosulfonate complexes"
P. Roembke, A. Schier, F. Wiesbrock, H. Schmidbaur, Inorg. Chim. Acta **347**, 123-128 (2003).

"(Phosphine)silver(I) Sulfonate Complexes"

P. Roembke, A. Schier, H. Schmidbaur, Z. Naturforsch. **58b**, 168-172 (2003).

"Synthesis and characterisation of N-coordinated pentafluorophenyl gold(I) thiazole-derived complexes and an unusual self-assembly to form a tetrameric gold(I) complex"

S. Cronje, H.G. Raubenheimer, H.S.C. Spies, C. Esterhuysen, H. Schmidbaur, A. Schier, G.J. Kruger, J. Chem. Soc., Dalton Trans. **2003**, 2859-2866.

"Mono- and dinuclear gold(I) thio- and selenocyanate complexes"

D. Schneider, S. Nogai, A. Schier, H. Schmidbaur, Inorg. Chim. Acta **352**, 179-187 (2003).

"Oligomerization of Digoldacetylide Complexes through Angular Head-to-Tail Auophilic Bonding"

R.-Y. Liau, A. Schier, H. Schmidbaur, Organometallics **22**, 3199-3204 (2003).

"Ligand Properties of Tri(2-thienyl)- and Tri(2-furyl)phosphine and -arsine, ($2\text{-C}_4\text{H}_3\text{E}$)₃P/As (E = O, S), in Gold(I) Complexes"

U. Monkowius, S. Nogai, H. Schmidbaur, Z. Naturforsch. **58b**, 751-758 (2003).

"The Quest for Complexes with a Coordinative Gold-Bismuth Bond"

O. Schuster, A. Schier, H. Schmidbaur, Organometallics **22**, 4079-4083 (2003).

"Auration of Thiophene and Furan: Structures of the 2-Mono- and 2,2-Diaurated Products"

K.A. Porter, A. Schier, H. Schmidbaur, Organometallics **22**, 4922-4927 (2003).

"Contributions to the Little Known Chemistry of Trivinylphosphine and Trivinylarsine"

U. Monkowius, S. Nogai, H. Schmidbaur, Organometallics **22**, 145-152 (2003).

"Trivinylphosphineborane ($\text{CH}_2=\text{CH}$)₃PBH₃ and related compounds"

U. Monkowius, S. Nogai, H. Schmidbaur, J. Chem. Soc., Dalton Trans. **2003**, 987-991.

"Ligand Properties of Tri(2-thienyl)- and Tri(2-furyl)phosphine and -arsine, ($2\text{-C}_4\text{H}_3\text{E}$)₃P/As (E = O, S), in Gold(I) Complexes"

U. Monkowius, S. Nogai, H. Schmidbaur, Z. Naturforsch. **58b**, 751-758 (2003).

"Highly Asymmetric Coordination in Alkenes: Gas-Phase Structures of trans-1,2-Dichloro-1,2-disilylethene and 1-Bromo-1-silylethene"

L.J. McLachlan, S.L. Hinchley, D.W.H. Rankin, C.A. Morrison, H.E. Robertson, N.W. Mitzel, C. Rüdinger, H. Schmidbaur, Inorg. Chem. **42**, 6539-6544 (2003).

"Complexity of Coordinative Bonding in Thallium(I) Anthranilates and Salicylates"

F. Wiesbrock, H. Schmidbaur, J. Am. Chem. Soc. **125**, 3622-3630 (2003).

"Beryllium Dichloride Coordination by Nitrogen Donor Molecules"

M.P. Dressel, S. Nogai, R.F.J. Berger, H. Schmidbaur, Z. Naturforsch. **58b**, 173-182 (2003).

"Zinc(Hydrogen-beta-glutamate)-chloride Hydrate [Zn(beta-GluH)Cl(H₂O)], a One-dimensional Coordination Polymer"

F. Wiesbrock, H. Schmidbaur, Z. Naturforsch. **58b**, 395-398 (2003).

"Lithium L-hydrogen-alpha-glutamate: A layer structure with asymmetrical tunnels formed by nets with two different macrocycles"

F. Wiesbrock, H. Schmidbaur, Cryst. Eng. Comm. **5**, 262-264 (2003).

"Crystal Structures of Rubidium and Cesium Anthranilates and Salicylates"

F. Wiesbrock, H. Schmidbaur, Inorg. Chem. **58b**, 7283-7289 (2003).

"Lithium salicylate monohydrate: A layer structure with carboxylate-bridged delta- and lambda- ($(\text{H}_2\text{O})\text{Li}^+$)helices"

F. Wiesbrock, H. Schmidbaur, Cryst. Eng. Comm. **5**, 503-505 (2003).

"Mono- and bimetallic gold(I) and silver(I) pentafluoropropionates and related compounds"

P. Römbke, A. Schier, H. Schmidbaur, S. Cronje, H. Raubenheimer, Inorg. Chim. Acta **357**, 235-242 (2004).

"Application of (phosphine)gold(I) carboxylates, sulfonates and related compounds as highly efficient catalysts for the hydration of alkynes"

P. Römbke, H. Schmidbaur, S. Cronje, H. Raubenheimer, J. Mol Cataly. A **212**, 35-42 (2004).

"The auration of 2-hydroxy-pyridine (2-pyridone): preparative and structural studies and a comparison with reactions of related aliphatic O,N-donors"

S.E. Thwaite, A. Schier, H. Schmidbaur, Inorg. Chim. Acta **357**, 1549-1557 (2004).

"Governing the oxidative addition of iodine to gold(I) complexes by ligand tuning"

D. Schneider, A. Schier, H. Schmidbaur, J. Chem. Soc., Dalton Trans. **2004**, 1995-2005.

"Insignificance of P-H...P Hydrogen Bonding: Structural Chemistry of Neutral and Protonated 1,8-Di(phosphinyl)naphthalene"

S. Reiter, S.D. Nogai, K. Karaghiosoff, H. Schmidbaur, J. Amer. Chem. Soc. **126**, 15833-15843 (2004).

"Synthesis and auration of primary and di-primary heteroaryl-phosphines"

S.A. Reiter, S.D. Nogai, H. Schmidbaur, Dalton Trans. **2005**, 247-255.

"Preparation, structure and decomposition of gold(I) and gold(III) acetylide complexes"

O. Schuster, R.-Y. Liau, A. Schier, H. Schmidbaur, Inorg. Chim. Acta **358**, 1429-1441 (2005).

"Governing the oxidative addition of iodine to gold(I) complexes by ligand tuning"

D. Schneider, A. Schier, H. Schmidbaur, J. Chem. Soc., Dalton Trans. **2004**, 1995-2005.

"A Conformational Analysis of the Spirocyclic Quaternary Ammonium Cation $[(\text{CH}_2)_4\text{N}(\text{CH}_2)_4]^+$ in its Bromide and Picrate Salts"

U. Monkowius, S. Nogai, H. Schmidbaur, Z. Naturforsch. **59b**, 259-263 (2004).

"Insignificance of P-H...P Hydrogen Bonding: Structural Chemistry of Neutral and Protonated 1,8-Di(phosphinyl)naphthalene"

S. Reiter, S.D. Nogai, K. Karaghiosoff, H. Schmidbaur, J. Amer. Chem. Soc. **126**, 15833-15843 (2004).

"Triethoxysilane, Tetraethoxysilane and Hexaethoxydisiloxane – Three Complementary Reagents for the Synthesis of Hydrogen-Rich Silylarenes"

O. Minge, S. Nogai, H. Schmidbaur, Z. Naturforsch. **59b**, 153-160 (2004).

"A Speculative Discussion of the Structural Details of 1-Bromo-2-iodo-benzenes"

H. Schmidbaur, O. Minge, S. Nogai, Z. Naturforsch. **59b**, 264-268 (2004).

"From Gallium Hydride Halides to Molecular Gallium Sulfides"

H. Schmidbaur, S.D. Nogai, Z. Anorg. Allg. Chem. **630**, 2218-2225 (2004).

"Dehydrogenative Ga-Ga Coupling and Hydrogallation in Gallium Hydride Complexes of 3,5-Dimethylpyridine"

S.D. Nogai, H. Schmidbaur, Organometallics **23**, 5877-5880 (2004).

"Interactions of a beta-dipeptide with monovalent metal cations: crystal structures of (anthranoyl)anthranilic acid and its lithium, sodium and thallium salts"

F. Wiesbrock, H. Schmidbaur, J. Inorg. Biochem. **98**, 473-484 (2004).

"Synthesis and auration of primary and di-primary heteroaryl-phosphines"
S.A. Reiter, S.D. Nogai, H. Schmidbaur, Dalton Trans. **2005**, 247-255.

"Preparation, structure and decomposition of gold(I) and gold(III) acetylide complexes"
O. Schuster, R.-Y. Liau, A. Schier, H. Schmidbaur, Inorg. Chim. Acta **358**, 1429-1441 (2005).

"A Cyclic Hexamer of Silver Trifluoroacetate Supported by Four Triphenylphosphine Sulfide Template Molecules"
B. Djordjevic, O. Schuster, H. Schmidbaur, Inorg. Chem. **44**, 673-676 (2005).

"Auration of the Sulfones $\text{MeSO}_2\text{CH}_2\text{CN}$ and $\text{CH}_2(\text{CH}_2\text{SO}_2)_2\text{CH}_2$ "
B. Djordjevic, O. Schuster, H. Schmidbaur, Z. Naturforsch. **60b**, 169-174 (2005).

"Bromination of (phosphine)gold(II) bromide complexes: stoichiometry and structure of products"
D. Schneider, O. Schuster, H. Schmidbaur, Dalton Trans. **2005**, 1940-1947.

"Preparation, Structure and Gold(I) Complexation of p-Xylylene-1,4-diphosphines"
S. Reiter, S.D. Nogai, H. Schmidbaur, Z. Naturforsch. **60b**, 511-519 (2005).

"Preparative Routes to the first Tri- and Tetra(alkynyl)gold(III) Compounds: $(\text{L})\text{Au}(\text{C}=\text{CR})_3$ and $[\text{ER}_4]^+ [\text{Au}(\text{C}=\text{CR})_4]^-$ "
O. Schuster, H. Schmidbaur, Organometallics **24**, 2289-2296 (2005).

"Attempted Oxidative Addition of Halogens to (Isocyanide)gold(I) Complexes"
D. Schneider, O. Schuster, H. Schmidbaur, Organometallics **24**, 3547-3551 (2005).

"Isomeric Mono- and Bis[(phosphane)gold(I)] Thiocyanate Complexes"
R.J.F. Berger, M. Patzschke, D. Schneider, H. Schmidbaur, D. Sundholm, Chem. Eur. J. **11**, 3574-3582 (2005).

"Unexpected Structural Preference for Aggregates with Metallophilic Ag...Au Contacts in (Trimethylphosphine)silver(I) and -gold(I) Phenylethynyl Complexes. An Experimental and Theoretical Study"
O. Schuster, U. Monkowius, H. Schmidbaur, R.S. Ray, S. Krüger, N. Rösch, Organometallics **25**, 1004-1011 (2005).

"Crystal Structure of Tetrasodium 5-Chloro-Phenylene-1,3-Diphosphonate Decahydrate: Gutter-Shaped Aquatic Domains for the Alkali Cations"
S.A. Reiter, S.D. Nogai, H. Schmidbaur, J. Coord. Chem. **58**, 81-87 (2005).

"Synthesis and auration of primary and di-primary heteroaryl-phosphines"
S.A. Reiter, S.D. Nogai, H. Schmidbaur, Dalton Trans. **2005**, 247-255.

"Crystal Structure of Tetrasodium 5-Chloro-Phenylene-1,3-Diphosphonate Decahydrate: Gutter-Shaped Aquatic Domains for the Alkali Cations"
S.A. Reiter, S.D. Nogai, H. Schmidbaur, J. Coord. Chem. **58**, 81-87 (2005).

"Multifunctional Phosphorus Compounds: Molecular Structures of 1,2,4,5-Tetra(phosphinyl)-, Tetra(dimethoxyphosphoryl)-, and Tetra(dihydroxyphosphoryl)benzene"
S.A. Reiter, S.D. Nogai, H. Schmidbaur, Z. Anorg. Allg. Chem. **631**, 2292-2299 (2005).

"The experimental gas-phase structures of 1,3,5-trisilylbenzene and hexasilylbenzene and the theoretical structures of all benzenes with three or more silyl substituents"
B. F. Johnston, N. W. Mitzel, D. W. H. Rankin, H. E. Robertson, C. Rüdinger, H. Schmidbaur, Dalton Trans. **2005**, 2292-2299.

"Crystal Structure and Ligand Mobility in Solution of cis-Dimethyl-bis(trimethylphosphine)gold(III) Complexes"
O. Schuster, H. Schmidbaur, Z. Naturforsch. **61b**, 1-5 (2006).

"A Molecular Bis(isocyanide)silver(I) Nitrate Complex"

B. Djordjevic, O. Schuster, H. Schmidbaur, Z. Naturforsch. **61b**, 6-10 (2006).

"Are Tetra[gold(I)]phosphonium Cations $[(\text{LAu})_4\text{P}]^+$ Non-obedient to the LeBel-van't Hoff Rule?"

H. Schmidbaur, Z. Naturforsch. **63b**, 853-859 (2008).

"Synthesis, Solution Behavior, Molecular and Supramolecular Structures of the Water-soluble Gold(I)

Saccharinate Complexes $\text{M}[\text{Au}(\text{Sac})_2]$ ($\text{M} = \text{Na}, \text{K}, \text{NH}_4^+$)"

M. A. Cinelli, L. Maiore, A. Schier, H. Schmidbaur, D. Rossi, Z. Naturforsch. **63b**, 1027-1034 (2008).

"Gold - an introductory perspective?"

G. J. Hutchings, M. Brust, H. Schmidbaur, Chem. Soc. Rev. **37**, 1759-1765 (2008).

"Solvent and counterion effects in bis(imidazole)dinuclear heterometallic complexes of gold(I): some considerations of porosity"

C. E. Strasser, L. Dobrzanska, H. Schmidbaur, H. G. Raubenheimer, J. Mol. Struct. **977**, 214-219 (2010).

"Gold coordination during homogeneous alkyne and allene cyclisation catalysis: coordination to substrates, to ancillary ligands and in intermediates"

H. G. Raubenheimer, H. Schmidbaur, South African J. Sci. **107**, 31-43 (2011).

"Observations and Descriptions vs. Explanations. An example: does nature, does theory know about steric hindrance"

W. H. E. Schwarz, H. Schmidbaur, Chemistry Europ. J. **18**, 4470-4479 (2012).

"Pyrophosphate complexation of tin(II) in aqueous solution as applied in electrolytes for the deposition of tin and tin alloys as white bronze"

M. R. Buchner, F. Kraus, H. Schmidbaur, Inorg. Chem. **51**, 8860-8867 (2012).

Review Articles:

"Noble Metals Chemistry"

H. Schmidbaur, in Encyclopedia of Physical Science and Technology, 3rd Ed., R.A. Meyers Ed., Vol. 10, , Acad. Press 2001.

"Recent contributions to the aqueous coordination chemistry of beryllium"

H. Schmidbaur, Coord. Chem. Rev. **215**, 223-242 (2001).

"Going for Gold. Supramolecular Chemistry"

H. Schmidbaur, Nature **413**, 31-33 (2001).

"Experimental probes for relativistic effects in the chemistry of heavy d- and f-elements"

D. Schröder, M. Diefenbach, H. Schwarz, A. Schier, H. Schmidbaur, in "Relativistic Effects in Heavy-Element Chemistry and Physics" (B. A. Hess (Ed.)), J. Wiley & Sons, Chichester, U.K., Chapter 6, pp. 245-258 (2002).

"alpha,omega-Bis[(triphenylphosphine)gold(I)]hydrocarbons"

K.A. Porter, A. Schier, H. Schmidbaur, in 'Perspectives in Organometallic Chemistry', (C.G. Scettas, B.R. Steele, Eds.), The Royal Society of Chemistry, Cambridge, pp. 74-85 (2003).

"Organometallic Complexes of Gold"

H. Schmidbaur, A. Schier, in 'Science of Synthesis, Houben-Weyl Methods of Molecular Transformations', (I. O'Neil, Ed.) Georg Thieme Verlag Stuttgart. Vol. 3, pp. 691-761 (2003).

"Gold in Kultur, Kunst, Wirtschaft und Wissenschaft"
H. Schmidbaur in 'Sphinx', The Finnish Society of Sciences and Letters, Helsinki, pp. 91-98 (2004).

"Carbocations in Gold Chemistry"
H. Schmidbaur, K.A. Porter in 'Carbocation Chemistry' (G.A. Olah, G.K.S. Prakash, Eds.), John Wiley & Sons, New Jersey, pp. 291-308 (2004).

"Understanding gold chemistry through relativity"
H. Schmidbaur, S. Cronje, B. Djordjevic, O. Schuster, Chemical Physics **311**, 151-161 (2005).

"Gold: Organometallic Chemistry"
H. Schmidbaur, A. Schier, in: Encyclopedia of Inorganic Chemistry, R.B. King (Ed.), Wiley, Chichester, UK, pp. 1688-1698 (2005).

"Gold Organometallics"
H. Schmidbaur, A. Schier, in: Comprehensive Organometallic Chemistry III, R.H. Crabtree, D.P.M. Mingos (Eds.), Vol. 2, Elsevier, Oxford, pp. 251-308 (2006).

"A Briefing on Auophilicity"
H. Schmidbaur, A. Schier, Chem. Soc. Rev. **37**, 1931-1951 (2008).

" π -Complexation of Post-Transition Metals by Neutral Aromatic Hydrocarbons: The Road from Observations in the 19th Century to New Aspects of Supramolecular Chemistry"
H. Schmidbaur, A. Schier, Organometallics **27**, 2361-2395 (2008).

"Gold π -coordination to unsaturated and aromatic hydrocarbons: the key step of gold-catalyzed organic transformations"
H. Schmidbaur, A. Schier, Organometallics **29**, 2-23 (2010).

"Silver-free gold(I) catalysis for organic transformations"
H. Schmidbaur, A. Schier, Z. Naturforsch. **66b**, 329-350 (2011).

"Gold coordination in homogeneous alkyne and allene catalysis: Coordination to substrates, to ancillary ligands and to intermediates."
H. G. Raubenheimer, H. Schmidbaur, South African J. of Sci. **107**, 31-44 (2011).

"Auophilic interactions as a subject of current research: an up-date"
H. Schmidbaur, A. Schier, J. Chem. Rev. **41**, 370-412 (2012).

"Observations and descriptions vs. explanations: The role of steric hindrance."
H. Schmidbaur, W. H. E. Schwarz, Chem. Eur. J. **18**, 4470-4479 (2012).

"Gold chemistry guided by the isolobality concept."
H. G. Raubenheimer, H. Schmidbaur, Organometallics **31**, 2507-2522 (2012).

"Gold(III) compounds for homogeneous catalysis: Preparation, reaction conditions and scope of applications."
H. Schmidbaur, A. Schier, Arab. J. Sci. Eng. **37**, 1187-1227 (2012).

"Synthesis and crystal structure of the complex salt $[Au(^tBu_2PH)_2][HCl_2]$.
H.-C. Böttcher, P. Mayer, H. Schmidbaur, Z. Naturforsch. Chem. Sci. **66b**, 543-548 (2012).

"¹⁸Membered heterometallacyclic gold(I) compounds: Structural influences of co-crystallized solvents."
L. Dobrzanska, C. E. Strasser, H. Schmidbaur, H. G. Raubenheimer, Z. Naturforsch. Chem. Sci. **67b**, 1115-1122 (2012).

"Pyrophosphate complexation of tin(II) in aqueous solutions as applied for the deposition of tin and tin alloys such as white bronze."

M. Buchner, F. Kraus, H. Schmidbaur, Inorg. Chem. **51**, 8860-8867 (2012).

"Implications of the crystal structure of the ammonia solvate $[Au(NH_3)_2]Cl \cdot 4H_2O$."

L. Scharf, S. A. Baer, F. Kraus, S. M. Bawaked, H. Schmidbaur, Inorg. Chem. **52**, 2157-2161 (2013).

"Tracing hydrogen bonding Au---H-C at gold atoms: A case study."

F. Kraus, H. Schmidbaur, S. S. Al-huaid, Inorg. Chem. **52**, 9669-9574 (2013).

"Bis(triphenylphosphine)gold(I) perrhenate."

S. A. Baer, A. Pöthig, S. M. Bawaked, H. Schmidbaur, F. Kraus, Z. Naturforsch. Chem. Sci. **68b**, 1173-1179 (2013).

"Synthesis of a tri(gold)boride complex $(Cy_3P)B[Au(P(o-Tol)_3)_3]$."

H. Schmidbaur, A. Blumenthal, F. Kraus, Z. Naturforsch. Chem. Sci. **68b**, 1321-1326 (2013).

"The gold-hydrogen bond, Au-H, and the hydrogen bond to gold, Au--H-X,

H. Schmidbaur, H. G. Raubenheimer, L. Dobrzanska, Chem Soc. Rev. **43**, 345-380 (2014).

"The late start and the amazing upswing in gold chemistry."

H. G. Raubenheimer, H. Schmidbaur, J. Chem. Educ. **91**, 2024-2036 (2004).

"Argentophilic interactions"

H. Schmidbaur, A. Schier, Angew. Chem. Int. Ed. **54**, 746-784 (2015).

"Mercurophilic interactions"

H. Schmidbaur, A. Schier, Organometallics **34**, 2048-2066 (2015).

"(Triphenylphosphine)silver(I) perrhenate, a cyclic dimer."

S. Deiser, F. Kraus, H. Schmidbaur, Chem. Commun. **51**, 6746-66478 (2015).

"Influence of relativistic effects on bonding modes in M(II) dinuclear complexes (M = Cu, Ag, Au)."

P. Jerabek, B. von der Esch, H. Schmidbaur, P. Schwerdtfeger, Inorg. Chem. **56**, 14624-14631 (2017).

"The history and the current revival of the oxo chemistry of iron in its highest oxidation states: Fe^{VI} - Fe^{VIII}."

H. Schmidbaur, Z. Anorg. Allg. Chem. 2018, in print.