

**VERÖFFENTLICHUNGSVERZEICHNIS**  
**(Prof. Dr. B. Lippert)**

- (1) "Metallkomplexe in der Krebstherapie", B. Lippert, Nachr. Chem. Techn. 21, 115-116 (1973).
- (2) "Die  $^1\text{H}$ -NMR und  $^{13}\text{C}$ -NMR-Spektren des Maleinsäurehydrazids und seines N-Methyl-Derivates", H. P. Fritz, F. H. Köhler, B. Lippert, Chem. Ber. 106, 2918-2924 (1973).
- (3) "Die  $^1\text{H}$ -NMR-Breitlinien, IR- und Raman-Spektren des Maleinsäurehydrazids", B. Lippert, H. P. Fritz, P. Burkert, Chem. Ber. 108, 478-485 (1975).
- (4) "Untersuchungen an biologisch wirksamen Ligandensystemen XII. Metallkomplexe des Maleinsäurehydrazids und ihre physiologische Wirkung auf Yoshida-Sarkom-Asciteszellen", H. P. Fritz, B. Lippert, K. Possinger, R. Hartenstein, Z. Naturforsch., 32b, 393-400 (1977).
- (5) "Platinum Pyrimidine Blues - Nature and Possible Structure", B. Lippert, J. Clin. Hemat. Oncol. 7, 26-50 (1977).
- (6) "Hydroxo-Bridged Platinum(II) Complexes. 1. Di- $\mu$ -hydroxo-bis-[diammineplatinum(II)] Nitrate. Crystalline Structure and Vibrational Spectra", R. Faggiani, B. Lippert, C. J. L. Lock, B. Rosenberg, J. Am. Chem. Soc. 99, 777-781 (1977).
- (7) "Hydroxo-Bridged Platinum(II) Complexes. 2. Crystallographic Characterization and Vibrational Spectra of cyclo-Tri- $\mu$ -hydroxo-tris[*cis*-diammineplatinum(II)]Nitrate", R. Faggiani, B. Lippert, C. J. L. Lock, B. Rosenberg, Inorg. Chem. 16, 1192-1196 (1977).
- (8) "*cis*-Dinitratodiammineplatinum(II), *cis*-Pt(NH<sub>3</sub>)<sub>2</sub>(NO<sub>3</sub>)<sub>2</sub>. Crystalline Structure and Vibrational Spectra", B. Lippert, C. J. L. Lock, B. Rosenberg, M. Zvagulis, Inorg. Chem. 16, 1525-1529 (1977).
- (9) "Hydroxo-Bridged Platinum(II) Complexes. 3. Bis[cyclo-tri- $\mu$ -hydroxo-tris(*cis*-diammineplatinum(II))] Trisulfate Hexahydrate, Crystallographic Characterization and Vibrational Spectra", R. Faggiani, B. Lippert, C. J. L. Lock, B. Rosenberg, Inorg. Chem. 17, 1941-1945 (1978).
- (10) "Hydroxo-Bridged Platinum(II) Complexes. 4. Crystal Structure and Vibrational Spectra of Di- $\mu$ -hydroxo-bis[(diammineplatinum(II)) Carbonate Dihydrate", B. Lippert, C. J. L. Lock, B. Rosenberg, M. Zvagulis, Inorg. Chem. 17, 2971-2975 (1978).
- (11) "Mixed-Ligand Complexes of *cis*-[Pt(NH<sub>3</sub>)<sub>2</sub>]<sup>2+</sup> Containing Pyrimidine and Purine Bases", B. Lippert, Biochemie 60, 1041-1042 (1978).
- (12) "Uracil and Thymine Monoanions in Solution: Differentiation of Tautomers by Laser Raman Spectroscopy", B. Lippert, J. Raman Spectrosc. 8, 274-278 (1979).
- (13) "The Role of N1 Coordinated Thymine in 'Platin Thymine Blue'", B. Lippert, R. Pfab, D. Neugebauer, Inorg. Chim. Acta 37, L495-L497 (1979).
- (14) "Potassium Thymine Trihydrate, K(C<sub>5</sub>H<sub>5</sub>N<sub>2</sub>O<sub>2</sub>) $\cdot$ 3H<sub>2</sub>O", C. J. L. Lock, P. Pilon, B. Lippert, Acta Cryst. B35, 2533-2537 (1979).
- (15) "A Platinum(II) Dimer with Bridging 1-Methylthymine Ligands in Head-to-Head Arrangement", B. Lippert, D. Neugebauer, U. Schubert, Inorg. Chim. Acta 46, L11-L14 (1980).
- (16) "Heavy Transition Metal Complexes of Biologically Important Molecules. 4. Crystal and Molecular Structure of Pentahydrodioxonium Chloro-(uracilato-N<sup>1</sup>) (ethylenediamine)platinum(II) Chloride, and Chloro-(thyminato-N<sup>1</sup>)(ethylene-diamine)platinum(II)", R. Faggiani, B. Lippert, C. J. L. Lock, Inorg. Chem. 19, 295-300 (1980).

- (17) "Raman Spectroscopy for the Study of Tautomers: Uracil and Thymine Monoanions in Solution, in the Solid State and Coordinated to Platinum", B. Lippert, Proc. VIIth Intern. Conf. Raman Spectroscopy, W. F. Murphy (Ed.) North Holland, pp. 582 - 583 (1980).
- (18) "An Unexpected G-G Base Pairing Caused by the Coordination of Platinum(II) at the N7 Position of 9-Ethylguanine", R. Faggiani, C. J. L. Lock, B. Lippert, J. Am. Chem. Soc. 102, 5418-5419 (1980).
- (19) "Simultaneous Binding to Two Different Transition Metals to the DNA Model Base 1-Methylthymine: The X-Ray Structure of Bis[bis-( $\mu$ -1-methylthymine- $N^3, O^4$ )-*cis*-diammineplatinum(II)]-Silver Nitrate Pentahydrate", B. Lippert, D. Neugebauer, Inorg. Chim. Acta 46, 171-179 (1980).
- (20) "On the Tautomerism of the Thymine Anion in the Solid State: A Raman and Infrared Study", B. Lippert, J. Raman Spectrosc. 2, 324-333 (1980).
- (21) "Rare Iminol Tautomer of 1-Methylthymine through Metal Coordination at N3", B. Lippert, Inorg. Chim. Acta 55, 5-14 (1981).
- (22) "Crystal Structures of Two Crystalline Forms of Chloro-*cis*-diammine-(1-methylcytosine- $N^3$ )platinum(II) Nitrate and their  $^1H$ -NMR-, IR- and Raman-Spectra", B. Lippert, C. J. L. Lock, R. A. Speranzini, Inorg. Chem. 20, 335-342 (1981).
- (23) "Crystal Structures of *trans*-Dichlorodiammine(1-methylcytosine- $N^3$ )-platinum(II) Hemihydrate, and *trans*-Diammine-bis(1-methylcytosine- $N^3$ )platinum(II) Dinitrate. Evidence for the Unexpected Lability of  $NH_3$  in a *cis*-Diamminplatinum(II) Complex", B. Lippert, C. J. L. Lock, R. A. Speranzini, Inorg. Chem. 20, 808-813 (1981).
- (24) "Unusual Platinum Complexes of Deprotonated 1-Methylcytosine: Bis-( $\mu$ -1-methylcytosinato- $N^3, N^4$ )-bis(*cis*-diamminplatinum(II)) Dinitrate Dihydrate and [Diaquahydrogen(1+)] [Bis-( $\mu$ -1-methylcytosinato- $N^3, N^4$ )-bis(*cis*-nitrodiammineplatinum(Pt-Pt)) Dinitrate", R. Faggiani, B. Lippert, C. J. L. Lock, R. A. Speranzini, J. Am. Chem. Soc. 103, 1111-1120 (1981).
- (25) "The X-Ray Structure of a Heteronuclear (Pt, Mn) Complex of 1-Methylthymine and its Vibrational Spectra", B. Lippert, U. Schubert, Inorg. Chim. Acta 56, 15-20 (1981).
- (26) "Crystal Structure of *cis*-Diammine(1-methylcytosine- $N^3$ )-(thyminato- $N^1$ )platinum(II) Perchlorate, and Its  $^1H$ -NMR and Vibrational Spectra and Those of the Corresponding Mono- and Trihydrates", R. Faggiani, B. Lippert, C. J. L. Lock, R. Pfab, Inorg. Chem. 20, 2381-2386 (1981).
- (27) "Tris (Nucleobase) Complexes Derived from *cis*-Pt( $NH_3$ ) $_2Cl_2$ ", B. Lippert, Inorg. Chim. Acta 56, L23-L24 (1981).
- (28) "Effects of N7 Platinum Binding on the Hydrogen Bonding Behaviour of 9-Ethylguanine", B. Lippert, J. Am. Chem. Soc. 103, 5691-5697 (1981).
- (29) "Platinum Complexes of Uracil. Multiplicity and Interconversion of Binding Sites", B. Lippert, Inorg. Chem. 20, 4326-4343 (1981).
- (30) "Heterocyclic Ring Vibrations as Diagnostic Tools for the Differentiation of Metal Coordination Sites", B. Lippert, Ber. Bunsenges. Phys. Chem. 85, 507-508 (1981).
- (31) "A Heteronuclear (Pt $_4$ , Ag) Complex of 1-Methyluracil and Its Conversion into a Crystalline Platinum Blue", B. Lippert, D. Neugebauer, Inorg. Chem. 21, 451-452 (1982).
- (32) "Crystalline Structure and Vibrational Spectry of *cis*-dichlorodiammine-*trans*-dihydroxo-platinum(IV), PtCl $_2$ ( $NH_3$ ) $_2$ (OH) $_2$ ", R. Faggiani, H. E. Howard-Look, B. Lippert, C. J. L. Lock, B. Rosenberg, Can. J. Chem. 60, 529-534 (1982).

- (33) "Platinum(II) Complexes with Terminal Hydroxo- and Aquo-Groups: Crystal Structures of Hydrox-*cis*-diammine-(1-methylcytosine-N<sup>3</sup>)platinum(II) Nitrate Dihydrate, and *cis*-Diammineaqua (1-methylcytosine-N<sup>3</sup>)platinum(II) Dinitrate Hydrate", J. F. Britten, B. Lippert, C. J. L. Lock, P. Pilon, *Inorg.Chem.* 21, 1936-1941 (1982).
- (34) "Mixed-Nucleobase Complexes *cis*-Pt(NH<sub>3</sub>)<sub>2</sub>TX with T = 1-Methylthymine Anion and X = 1-Methylcytosine, 9-Ethylguanine, 9-Methyladenine and 9-Methyladenine Cation", R. Beyerle, B. Lippert, *Inorg. Chim. Acta* 66, 141-146 (1982).
- (35) "Large Zero-Field Splitting for Manganese(II) in a Trinuclear (Pt, Mn, Pt) Complex of 1-Methylthymine", D. M. L. Goodgame, R. W. Rollins, B. Lippert, *Inorg. Chim. Acta* 66, L59-L60 (1982).
- (36) "Pt(II) Complexes of Thymine: Factors Influencing Binding Sites and Methods of Differentiation", R. Pfab, P. Jandik, B. Lippert, *Inorg. Chim. Acta* 66, 193-204 (1982).
- (37) "Bis-(1-methylcytosine) Complexes of *cis*-Diammineplatinum(II) and the X-Ray Structure of a Platinum Complex with Covalently Bonded and Hydrogen Bonded 1-Methylcytosine", R. Faggiani, B. Lippert, C. J. L. Lock, *Inorg. Chem.* 21, 3210-3216 (1982).
- (38) "Model Complexes of Possible Cross-Linking Products of *cis*-[Pt(NH<sub>3</sub>)<sub>2</sub>]<sup>2+</sup> with Cytosine and Guanine Bases of DNA: X-Ray Structures of Three Mixed-Ligand Complexes of *cis*-Diammineplatinum(II) with 1-Methylcytosine and Neutral and Anionic 9-Ethylguanine", R. Faggiani, B. Lippert, C. J. L. Lock, R. A. Speranzini, *Inorg. Chem.* 21, 3216-3225 (1982).
- (39) "Model Nucleobase Complexes of Cisplatin: Differentiation of Metal Binding Sites by Raman Spectroscopy", B. Lippert, *Proc. VIII Intern. Conf. Raman Spectrosc.*, J. Wiley, Chichester, p. 819 (1982).
- (40) "A Second Modification of the Head-Tail Dimer Bis(μ-1-methyl-thyminato)bis(*cis*-diammineplatinum(II)) Dinitrate and Its Differentiation from the Corresponding Head-Head Dimer", D. Neugebauer, B. Lippert, *Inorg. Chim. Acta* 67, 151-158 (1982).
- (41) "Bis(1-methyluracilato-N<sup>3</sup>)*cis*-diamminplatinum(II)-4-Water and Bis-(μ-1-methyl-uracilato-N<sup>4</sup>,O<sup>4</sup>)*cis*-diamminplatinum(II) diaquocopper(II) Sulfate-4.5-Water (Head-Head). Preparation, Crystal Structures and Implications for the Formation of Heteronuclear Pt,M Complexes", D. Neugebauer, B. Lippert, *J. Am. Chem. Soc.* 104, 6596-6601 (1982).
- (42) "Platinum(II) Complex Formation with Uracil and Thymine", B. Lippert in "Platinum Gold and Other Metal Chemotherapeutic Agents", S. J. Lippard (Ed.), ACS Symposium Series 209, pp. 147 - 170 (1983).
- (43) "Complexes of Platinum with DNA Bases, Nucleotides and DNA", A. P. Hitchcock, B. Lippert, C. J. L. Lock, W. M. C. Pratt in "Platinum Gold and Other Metal Chemo-therapeutic Agents", S. J. Lippard (Ed.), ACS Symposium Series 209, pp. 209 - 227 (1983).
- (44) "Verfahren zur Herstellung von reinem *cis*-Platin(II)-diammindichlorid", G. Raudaschl, B. Lippert, Degussa AG, 83109 PH Deutsche Patentanmeldung (AZ P 3305 248.8), (1983).
- (45) "A Simple Procedure for Purifying the Antitumor Agents *cis*-Pt(NH<sub>3</sub>)<sub>2</sub>Cl<sub>2</sub> (Cisplatin)", G. Raudaschl, B. Lippert, J. D. Hoeschele, *Inorg. Chim. Acta* 78, L43-L44 (1983).
- (46) "Formation of Dinuclear (Head-Head, Head-Tail, μ-Hydroxo) Complexes of *cis*-(NH<sub>3</sub>)<sub>2</sub>Pt(II) with 1-Methyluracil", B. Lippert, D. Neugebauer, G. Raudaschl, *Inorg. Chim. Acta* 78, 161-170 (1983).
- (47) "Three-Bond Platinum-Hydrogen Coupling in 9-Ethylguanine-N<sup>7</sup> Complexes of (NH<sub>3</sub>)<sub>x</sub>Pt(II): Influence of *trans*- and *cis*-Ligands", G. Raudaschl, B. Lippert, *Inorg. Chim. Acta* 80, L49-L50 (1983).

- (48) "Platinum in its Unusual Oxidation State +III: Diplatinum(III)Complexes with the Model Nucleobase 1-Methyluracil", B. Lippert, H. Schöllhorn, U. Thewalt, Z. Naturforsch.38b, 1441-1445 (1983).
- (49) "Platin-Koordinationsverbindungen in der Krebstherapie", B. Lippert, W. Beck, Chemie in Unserer Zeit 17, 190-199 (1983).
- (50) "Reaktionen von Cisplatin mit DNA und Modellnucleobasen", B. Lippert, Beitr. Oncol. 18, (1984), Verlag Karger, Basel, pp. 36-47.
- (51) "1-Methyluracil as Tetradentate Ligand: Crystal Structure of *trans*-(NH<sub>3</sub>)<sub>2</sub>Pt(1-methyluracilate)<sub>2</sub>Ag<sub>2</sub>(NO<sub>3</sub>)<sub>2</sub>(H<sub>2</sub>O)·1H<sub>2</sub>O", H. Schöllhorn, U. Thewalt, B. Lippert, Chem. Commun. 769-770 (1984).
- (52) "Tridentate 1-Methyluracil in a Tetranuclear Pt<sub>2</sub>,Ag<sub>2</sub>-Complex. Crystal Structure and Solution Behavior of Bis(μ-1-methyluracilato)bis(*cis*-diamminplatinum(II) disilver Tetranitrate-2-Water (Head-Tail), *cis*-(NH<sub>3</sub>)<sub>2</sub>Pt(C<sub>5</sub>H<sub>5</sub>N<sub>2</sub>O<sub>2</sub>)Ag<sub>2</sub>(NO<sub>3</sub>)<sub>4</sub>·2H<sub>2</sub>O", U. Thewalt, D. Neugebauer, B. Lippert, Inorg. Chem. 23, 1713-1718 (1984).
- (53) "Crystal Structure of Bis(μ-1-methylthyminato-N<sup>3</sup>,O<sup>4</sup>)bis-(*cis*-diammin-platinum(II)) Dinitrate (Head-Head). Comparison with Related Compounds", H. Schöllhorn, U. Thewalt, B. Lippert, Inorg. Chim. Acta 93, 19-26 (1984).
- (54) "Real Model Compounds for Intrastrand Cross-Linking of Two Guanine Bases by Cisplatin: Crystal Structures of *cis*-Diammine(9-ethylguanine-N<sup>7</sup>)platinum(II) Dichloride Trihydrate, Pt(NH<sub>3</sub>)<sub>2</sub>(C<sub>7</sub>H<sub>9</sub>N<sub>5</sub>O)<sub>2</sub>Cl<sub>2</sub>·3H<sub>2</sub>O", and *cis*-Diammine-bis(9-ethylguanine-N<sup>7</sup>) platinum(II) Sesquichloride Hemibicarbonate Sesquihydrate, Pt(NH<sub>3</sub>)<sub>2</sub>(C<sub>7</sub>H<sub>9</sub>N<sub>5</sub>O)<sub>2</sub>Cl<sub>1.5</sub>(HCO<sub>3</sub>)<sub>0.5</sub>·1.5H<sub>2</sub>O", B. Lippert, G. Raudaschl, C. J. L. Lock, P. Pilon, Inorg. Chim. Acta 93, 43-50 (1984).
- (55) "Formation, Crystal Structure, and EPR Spectroscopic Properties of a Heteronuclear (Pt<sub>2</sub>, Cu) Mixed Nucleobase (1-Methylcytosine, 1-Methyluracil) Complex: Bis-(μ-1-methyluracilato-N<sup>3</sup>,O<sup>4</sup>)(1-methylcytosine-N<sup>3</sup>,O<sup>2</sup>)-*cis*-diammineplatinum(II) Copper(II) Tetranitrate-6-Water", B. Lippert, U. Thewalt, H. Schöllhorn, D. M. L. Goodgame, R. W. Rollins, Inorg. Chem. 23, 2807-2813 (1984).
- (56) "*cis*-(NH<sub>3</sub>)<sub>2</sub>Pt<sup>IV</sup> Complexes of Uracil through Cl<sub>2</sub> Treatment of a Pt(II) Complex: Oxidative Addition to the Metal and Modification (Cl Substitution, HOCl Addition) of the Nucleobase", G. Müller, J. Riede, R. Beyerle-Pfñür, B. Lippert, J. Am. Chem. Soc.106, 7999-8001 (1984).
- (57) "Tris-(1-methylcytosine-N<sup>3</sup>)ammineplatinum(II) Perchlorate Monohydrate, a Model for Simultaneous Binding of Three Nucleobase to a Single Metal Ion", R. Faggiani, C. J. L. Lock, B. Lippert, Inorg. Chim. Acta 106, 75-79 (1985).
- (58) "X-Ray Structure of a Mono(1-Methylthyminato) Complex of Cisplatin, Chloro-(1-methylthyminato-N<sup>3</sup>)-*cis*-diammineplatinum(II) Monohydrate", H. Schöllhorn, U. Thewalt, B. Lippert, Inorg. Chim. Acta 106, 177-180 (1985).
- (59) "Chemistry of Mono(guanine) Complexes of Cisplatin and Its Relevance to the N<sub>7</sub>,O<sub>6</sub> Chelate Hypothesis", G. Raudaschl-Sieber, L. G. Marzilli, B. Lippert, K. Shinozuka, Inorg. Chem. 24, 989-990 (1985).
- (60) "Mixed Metal Pt<sub>x</sub>M<sub>y</sub>L<sub>2</sub> Complexes of L = 1-Methyluracil and 1-Methylthymine: Preparation and Spectroscopic Studies"; D. M. L. Goodgame, R. W. Rollins, B. Lippert, Polyhedron 4, 829-839 (1985).

- (61) "Adduct Formation of *cis*-(NH<sub>3</sub>)<sub>2</sub>PtX<sub>2</sub> (X = Cl<sup>-</sup>, I<sup>-</sup>) with Formamides and the Crystal Structure of *cis*-(NH<sub>3</sub>)<sub>2</sub>PtCl<sub>2</sub>(CH<sub>3</sub>)<sub>2</sub>NCHO. Application for the Purification of the Antitumor Agent Cisplatin", G. Raudaschl-Sieber, B. Lippert, J. D. Hoeschele, H. E. Howard-Lock, C. J. L. Lock, P. Pilon, *Inorg. Chim. Acta* 106, 141-149 (1985).
- (62) "Preparation and Characterization of (9-Methyladenine)triammine-platinum(II) and *trans*-Dihydroxo(9-methyladenine)triammineplatinum(IV) Complexes", R. Beyerle-Pfnür, S. Jaworski, B. Lippert, H. Schöllhorn, U. Thewalt, *Inorg. Chim. Acta* 107, 217-222 (1985).
- (63) "Simultaneous Binding of Pt(II) to Three Different Sites (N7, N1, N3) of a Guanine Nucleobase", G. Raudaschl-Sieber, H. Schöllhorn, U. Thewalt, B. Lippert, *J. Am. Chem. Soc.* 107, 3591-3595 (1985).
- (64) "Reaction of Cyanide with Pt-Nucleobase Complexes: Preparative, Spectroscopic and Structural Studies. Unexpected Stability of Pt-Thymine and Pt-Uracil complexes", G. Raudaschl-Sieber, B. Lippert, *Inorg. Chem.* 24, 2426-2432 (1985).
- (65) "Mixed Ligand Complexes of *cis*- and *trans*-Pt(II) with Cytosine and Adenine Nucleobases: The Crystal Structures and Solution Studies of *cis*- and *trans*-Isomers of (9-Methyladenine-N7) (1-Methylcytosine-N3)-diammine-platinum(II) Perchlorate. Different Selectivities of [Pt(NH<sub>3</sub>)<sub>2</sub> (1-Methylcytosine)H<sub>2</sub>O]<sup>2+</sup>-Isomers for N1 and N7 Donor Atoms of Adenine", R. Beyerle-Pfnür, B. Brown, R. Faggiani, B. Lippert, C. J. L. Lock, *Inorg. Chem.* 24, 4001-4009 (1985).
- (66) "A Heteronuclear (Pt,Zn) complex of 1-Methyluracil with Different Coordination Geometries (Square-planar and square-pyramidal) of Two Metals", H. Schöllhorn, U. Thewalt, B. Lippert, *Inorg. Chim. Acta* 108, 77-81 (1985).
- (67) "A Novel Metal Binding Mode of Cytosine Nucleobases: N(3), N(4) Chelation", R. Beyerle-Pfnür, H. Schöllhorn, B. Lippert, *J. Chem. Soc., Chem. Commun.*, 1510-1511 (1985).
- (68) "DNA-Intrastand Guanine, Guanine Cross-Linking by Cisplatin: Comparison of Three Model Compounds with Head-Head Orientation of the Nucleobases", H. Schöllhorn, G. Raudaschl-Sieber, G. Müller, U. Thewalt, B. Lippert, *J. Am. Chem. Soc.* 107, 5932-5937 (1985).
- (69) "Additive Trans Influences of the Axial Ligand and Metal-Metal Bond in a Diplatinum(III) Complex Leading to an Asymmetric Structure with Penta- and Hexacoordination of the Two Metals", B. Lippert, H. Schöllhorn, U. Thewalt, *J. Am. Chem. Soc.* 108, 525-526 (1986).
- (70) "Pt<sup>III</sup> Coordination through C(5) of 1-Methyluracil: the First Example of a Pt-Nucleobase Complex containing a Pt-C-Bond", H. Schöllhorn, U. Thewalt, B. Lippert, *J. Chem. Soc., Chem. Commun.*, 258-260 (1986).
- (71) "Facile Substitution of NH<sub>3</sub> Ligand in a Diplatinum(III) Complex of 1-Methyluracil", B. Lippert, H. Schöllhorn, U. Thewalt, *Inorg. Chem.* 25, 407-408 (1986).
- (72) "PtL<sub>3</sub> X-Ray Absorption Studies of Pt Model Compounds and [(NH<sub>3</sub>)<sub>2</sub>Pt(OH)<sub>2</sub>Pt(NH<sub>3</sub>)<sub>2</sub>]<sup>2+</sup> Bound to DNA", A. P. Hitchcock, C. J. L. Lock, B. Lippert, *Inorg. Chim. Acta* 124, 101-114 (1986).
- (73) "Ligating Properties of Pt(II) Ions in Mixed Metal (Pt<sub>2</sub>M) Trimers (M = Cu(II), Ni(II), Co(II), Fe(II))", D. M. L. Goodgame, M. A. Hitchman, B. Lippert, *Inorg. Chem.* 25, 2191-2194 (1986).
- (74) "Chlorimine Formation and Deamination of the Model Nucleobase 1-Methylcytosine", R. Beyerle-Pfnür, B. Lippert, H. Schöllhorn, R. Matischok, U. Thewalt, *J. Heterocyclic Chem.* 23, 505-508 (1986).
- (75) "Unusual Four-Membered Chelate Rings of Pt<sup>IV</sup> with a Cytosine Nucleobase", H. Schöllhorn, R. Beyerle-Pfnür, U. Thewalt, B. Lippert, *J. Am. Chem. Soc.* 108, 3680-3688 (1986).

- (76) "N,N-Dimethylamide Adducts of Mixed Iodo-Ammine Complexes of Pt(II) and Pt(IV)", G. Raudaschl-Sieber, B. Lippert, J. F. Britten, A. L. Beauchamp, *Inorg. Chim. Acta* 124, 213-217 (1986).
- (77) "Mono- and Bis(1-Methylcytosine) Complexes of Cisplatin: The Crystal Structures of *cis*-[(NH<sub>3</sub>)<sub>2</sub>Pt(1-MeC)Cl]<sub>2</sub>Pt(CN)<sub>4</sub> and *cis*-[(NH<sub>3</sub>)<sub>2</sub>Pt(1-MeC)<sub>2</sub>]Pt(CN)<sub>4</sub> · 2H<sub>2</sub>O", H. Schöllhorn, U. Thewalt, G. Raudaschl-Sieber, B. Lippert, *Inorg. Chim. Acta* 124, 207-211 (1986).
- (78) "Diplatinum(III) Complexes with Bridging 1-Methyluracil Ligands in Head-Tail Arrangement: Synthesis, Structures and Solution Behavior", H. Schöllhorn, P. Eisenmann, U. Thewalt, B. Lippert, *Inorg. Chem.* 25, 3384-3391 (1986).
- (79) "Metal-Stabilized Rare Tautomers of Nucleobases. I. Iminooxo Form of Cytosine: Formation Through Metal Migration and Estimation of the Geometry of the Free Tautomer", B. Lippert, H. Schöllhorn, U. Thewalt, *J. Am. Chem. Soc.* 108, 6616-6621 (1986).
- (80) "Heteronuclear, Mixed-Nucleobase Complexes. 2. (μ-1-Methyluracilato-N<sup>3</sup>,O<sup>4</sup>) (μ-1-Methylcytosine-N<sup>3</sup>,O<sup>2</sup>)-*cis*-diamminplatinum(II)-silver Dinitrate-Silver Nitrate-2.5 Water"; H. Schöllhorn, U. Thewalt, B. Lippert, *Inorg. Chim. Acta* 135, 155-159 (1987).
- (81) "Formation of [Pt(2.25)]<sub>4</sub>-1-Methyluracil-Blue through Silver(I) Oxidation of [Pt(2.0)]<sub>2</sub> and Isolation of a Heteronuclear (Pt<sub>2</sub>, Ag<sub>2</sub>) Precursor", B. Lippert, H. Schöllhorn, U. Thewalt, *Inorg. Chem.* 26, 1736-1741(1987).
- (82) "A Novel Type of 1-Methyluracil (Hmeu)-Blue: Trinuclear, Mixed-Metal Complex *cis*-[(NH<sub>3</sub>)<sub>2</sub>Pt(meu)<sub>2</sub>Pd(meu)<sub>2</sub>Pt(NH<sub>3</sub>)<sub>2</sub>]<sup>3+</sup>", W. Micklitz, G. Müller, J. Riede, B. Lippert, *J. Chem. Soc., Chem. Commun.*, 76-78 (1987).
- (83) "Magnetic Properties and Metal-Metal Interactions in Mixed-Metal (Pt<sub>2</sub>M) Trimers (M = Ni, Co)" D. M. Duckworth, D. M. L. Goodgame, M. A. Hitchman, B. Lippert, K. S. Murray, *Inorg. Chem.* 26, 1823-1825 (1987).
- (84) "The Crystal Structure of a Heteronuclear Pt<sub>2</sub>CuL<sub>4</sub> Complex of 1-Methyluracil, Cu[Pt(NH<sub>3</sub>)<sub>2</sub>(C<sub>5</sub>H<sub>5</sub>N<sub>2</sub>O<sub>2</sub>)<sub>2</sub>]<sub>2</sub>SO<sub>4</sub>·8H<sub>2</sub>O"; I. Mutikainen, O. Orama, A. Pajunen, B. Lippert, *Inorg. Chim. Acta* 137, 189-193 (1987).
- (85) "An Alternative HPLC Method for Analysing Mixtures of Isomeric Platinum(II) Diamine Compounds", J. Arpalahti, B. Lippert, *Inorg. Chim. Acta* 138, 171-173 (1987).
- (86) "Metal-Coordination Chemistry with Biomolecules: Platinum-Nucleobase Interactions", B. Lippert, J. Arpalahti, O. Krizanovic, W. Micklitz, F. Schwarz, G. Trötscher, in M. Nicolini (Ed.) "Platinum and other Metal Coordination Compounds in Cancer Chemotherapy", Martinus Nijhoff Publishing, Boston (1988), 563-581.
- (87) "Bis(Uracil)-Complexes of Cisplatin: Preparation, Protonation and Metal Binding", O. Krizanovic, B. Lippert and M. Nicolini (Ed.) "Platinum and Other Metal Coordination Compounds in Cancer Chemotherapy", Martinus, Nijhoff Publishing, Boston (1988), pp. 700-704.
- (88) "1-Methylcytosine-Complexes of Pt(IV)", F. Schwarz, H. Schöllhorn, U. Thewalt, B. Lippert, in M. Nicolini (Ed.) "Platinum and Other Metal Coordination Compounds in Cancer Chemotherapy", Martinus Nijhoff Publishing, Boston (1988), pp.728-732.
- (89) "Modelling Platinum-Nucleic Acid Interactions: Coordination Chemistry with Biological Aspects", B. Lippert, *Gazz. Chim. Ital.* 118, 153-165 (1988).

- (90) "Dinuclear (Pt,Pt) and Heteronuclear (Pt,Pd) Complexes of Uracil Nucleobases with Identical and Mixed Amine (NH<sub>3</sub>, en, bpy) Ligands on the Two Metals. Effect of the Heterometal and Amine on the Oxidizability", W. Micklitz, J. Riede, B. Huber, G. Müller, B. Lippert, *Inorg. Chem.* **27**, 1979-1986 (1988).
- (91) "Trichloroamine Complexes of Platinum: Preparation, Crystal Structure and Solution Behavior of Cytosinium Trichlorocytosineplatinatate(II)", S. Jaworski, H. Schöllhorn, P. Eisenmann, U. Thewalt, B. Lippert, *Inorg. Chim. Acta* **153**, 31-38 (1988).
- (92) "Crystal Structures of Two Pt(II) Diamine Compounds: *trans*-Pt(CH<sub>3</sub>NH<sub>2</sub>)<sub>2</sub>Cl<sub>2</sub> and *cis*-Pt[(CH<sub>3</sub>)<sub>2</sub>NH]<sub>2</sub>Cl<sub>2</sub>", J. Arpalahti, B. Lippert, H. Schöllhorn, U. Thewalt, *Inorg. Chim. Acta* **153**, 45-49 (1988).
- (93) "Crystal Structures of Three Thiourea (tu) Complexes of Pt(II): *trans*-[(tu)<sub>2</sub>Pt(NH<sub>3</sub>)<sub>2</sub>]Cl<sub>2</sub>, *trans*-[(tu)<sub>2</sub>Pt(CH<sub>3</sub>NH<sub>2</sub>)<sub>2</sub>]Cl<sub>2</sub>·3H<sub>2</sub>O and [Pt(tu)<sub>4</sub>]Cl<sub>2</sub>", J. Arpalahti, B. Lippert, H. Schöllhorn, U. Thewalt, *Inorg. Chim. Acta* **153**, 51-55 (1988).
- (94) "Diplatinum(III) Complexes of 1-Methyluracil: Solution Behavior and Interactions with Mono- and Dinuclear Platinum(II) Species", B. Lippert, in *Recent advances in di- and polynuclear Chemistry*, P. Braunstein, Ed., *New. J. Chem.* **12**, 715-720 (1988).
- (95) "Trinuclear, Mixed Pt<sub>2</sub>Pd-1-Methyluracil and 1-Methylthymine Blues with + 2.33 Average Metal Oxidation State: Preparation, Crystal Structures, and Solution Studies", W. Micklitz, G. Müller, B. Huber, J. Riede, F. Rashwan, J. Heinze, B. Lippert, *J. Am. Chem. Soc.* **110**, 7084-7092 (1988).
- (96) "Platinum-Pyrimidine Nucleobase-Interactions", B. Lippert in *Metal-Based Anti-Tumor Drugs*, M. F. Gielen, Ed., Freund Publ. House, England (1988), pp. 201-233.
- (97) "Platinum Nucleobase Chemistry", B. Lippert, *Prog. Inorg. Chem.* **37**, 1-97 (1989).
- (98) "An Improved Synthesis and Refined Crystal Structure of 1-Methyluracil", W. Micklitz, B. Lippert, H. Schöllhorn, U. Thewalt, *J. Heterocyclic Chem.* **26**, 1499-1500 (1989).
- (99) "Metal-Stabilized Rare Tautomers of Nucleobases. 2. 2-Oxo-4-hydroxo Form of Uracil: Crystal Structure and Solution Behavior of Two Platinum(II) Complexes Containing Iminol Tautomers of 1-Methyluracil", H. Schöllhorn, U. Thewalt, B. Lippert, *J. Am. Chem. Soc.* **111**, 7213-7221 (1989).
- (100) "The Molecular Structure of [Au(2,2'-bpy)]Cl·2.25H<sub>2</sub>O and Its 1-Methyluracil Adduct [Au(2,2'-bpy)(1-MeU)<sub>2</sub>]ClO<sub>4</sub>·4H<sub>2</sub>O", W. Micklitz, B. Lippert, G. Müller, P. Mikulcik, J. Riede, *Inorg. Chim. Acta* **165**, 57-64 (1989).
- (101) "Nucleobase Displacement from *trans*-Diamineplatinum(II) Complexes. A Rationale for the Inactivity of *trans*-DDP as an Antitumor Agent?", O. Krizanovic, F. J. Pesch, B. Lippert, *Inorg. Chim. Acta* **165**, 145-146 (1989).
- (102) "Fast Atom Bombardement and Tandem Mass Spectrometry for the Structural Characterization of Cisplatin Analogs and Bis-Nucleobase Adducts with Cisplatin", J. Claereboudt, B. De Spiegeleer, B. Lippert, E. A. De Bruijn, M. Claeys, *Spectros. Int. J.* **7**, 91-112 (1989).
- (103) "Coordination of Aquated *cis*-Pt(II) Diamines to Purine Nucleosides. Kinetics of Complex Formation", J. Arpalahti, B. Lippert, *Inorg. Chem.* **29**, 104-110 (1990).
- (104) "Mono- and Dinuclear Palladium(II) Complexes of Uracil and Thymine Model Nucleobases and the X-Ray Structure of [(bpy)Pd(1-MeT)<sub>2</sub>Pd(bpy)](NO<sub>3</sub>)·5.5H<sub>2</sub>O (*Head-Head*)", W. Micklitz, W. S. Sheldrick, B. Lippert, *Inorg. Chem.* **29**, 211-216 (1990).

- (105) "The X-Ray Structure of *cis*-Bis(cyclopropylamine)bis(1-methylthyminato- $N^3$ )platinum(II)-Dihydrate,  $cis-(cpa)_2Pt(1-MeT) \cdot 2H_2O$  and Chemistry Related to Platinum Thymine Purple", O. Renn, B. Lippert, H. Schöllhorn, U. Thewalt, *Inorg. Chim. Acta* **167**, 123-130 (1990).
- (106) "Platinum in the Unusual Oxidation State + 2.75: A Linear Tetranuclear Complex with the Model Nucleobase 1-Methylthymine", O. Renn, A. Albinati, B. Lippert, *Angew. Chem.* **102**, 71-73 (1990); *Angew. Chem. Intern. Ed. Engl.* **29**, 84-85 (1990).
- (107) "Bis(9-Ethylguaninium) and Bis(9-Ethylguanidine) Complexes of Pt(II): Preparation and Crystal Structures of  $cis-[Cl_2Pt(9-EtGH)_2]Cl \cdot 2H_2O$  and  $cis-[(pra)_2Pt(9-EtGH)_2](NO_3)_2$  (pra = n-propylamine)", L. Sindellari, H. Schöllhorn, U. Thewalt, G. Raudaschl-Sieber, B. Lippert, *Inorg. Chim. Acta* **168**, 27-32 (1990).
- (108) "Ternary Complexes of *cis*-( $NH_3$ )<sub>2</sub>Pt(II) with Model-Nucleobases (1-Methylcytosine, 9-Methylguanidine) and N and O Bound Amino Acids (gly, ala)", F. Schwarz, B. Lippert, A. Iakovidis, N. Hadjiliadis, *Inorg. Chim. Acta* **168**, 275-281 (1990).
- (109) "Mixed Nucleobase, Amino Acid Complexes of Pt(II). Preparation and X-Ray Structures of  $trans-[(CH_3NH_2)_2Pt(1-MeC-N^3)(gly-N)]NO \cdot 2H_2O$  and Its Precursor  $trans-[(CH_3NH_2)_2Pt(1-MeC-N^3)Cl]Cl \cdot H_2O$ ", F. J. Pesch, H. Preut, B. Lippert, *Inorg. Chim. Acta* **169**, 195-200 (1990).
- (110) "Platinum Coordination Chemistry with Nucleobases", B. Lippert, W. Micklitz, O. Renn, G. Trötscher, I. Dieter, G. Frommer, *Pure and Appl. Chem.* **62**, 1075-1078 (1990).
- (111) "Platinum(II) Binding to N7 and N1 of Guanine and a Model for a Purine-N1, Pyrimidine-N3 Cross-Link of Cisplatin in the Interior of a DNA Duplex", G. Frommer, H. Schöllhorn, U. Thewalt, B. Lippert, *Inorg. Chem.* **29**, 1417-1422 (1990).
- (112) "Preparation and Structural Characterization of Two Mixed  $NH_3/Cl/1$ -Methylthymine Diplatinum(II) Complexes:  $cis-[(NH_3)_2Pt(1-MeT)_2Pt(NH_3)Cl][Pt(NH_3)Cl_3] \cdot H_2O$  and  $cis-(NH_3)_2Pt(1-MeT)_2PtCl_2 \cdot 3H_2O$ ", W. Micklitz, O. Renn, H. Schöllhorn, U. Thewalt, B. Lippert, *Inorg. Chem.* **29**, 1836-1840 (1990).
- (113) "9-Ethylguaninium Tetrachloroaurate(III) Hydrate", H. Preut, B. Fischer, B. Lippert, *Acta Crystallogr.* **C46**, 1115-1117 (1990).
- (114) "*Trans*-Bis(glycine-N)bis(methylamine)platinum(II) Dinitrate Dihydrate,  $trans-[(CH_3NH_2)_2(C_2H_2NO_2)_2Pt](NO_3)_2 \cdot 2H_2O$ ", H. Preut, F. Schwarz, B. Lippert, *Acta Crystallogr.* **C46**, 1117-1119 (1990).
- (115) "*cis*-Chloro(1-methylcytosine- $N^3$ )( $N,N,N',N'$ -tetramethylethylenediamine) platinum(II) Perchlorate Hemihydrate", H. Preut, G. Frommer, B. Lippert, *Acta Crystallogr.* **C46**, 1326-1328 (1990).
- (116) "*cis*-{[( $NH_3$ )<sub>2</sub>Pt(1-MeU)<sub>2</sub>Pt(bpy)]<sub>2</sub>}(NO<sub>3</sub>)<sub>5</sub>·m·HNO<sub>3</sub>·nH<sub>2</sub>O, a Pt(2.25) Blue Derived from a Dinuclear, Mixed Amine Complex of 1-Methyluracil. Characterization of the Cation, Analytical Evaluation of Cocrystallized HNO<sub>3</sub>, and X-Ray Structure of Its Reduced [Pt(2.0)]<sub>2</sub> Form", G. Trötscher, W. Micklitz, H. Schöllhorn, U. Thewalt, B. Lippert, *Inorg. Chem.* **29**, 2541-2547 (1990).
- (117) "Coordination Chemistry of *trans*-( $NH_3$ )<sub>2</sub>Pt(II) with Uracil Nucleobases. A Comparison with *cis*-( $NH_3$ )<sub>2</sub>Pt(II)", I. Dieter, B. Lippert, H. Schöllhorn, U. Thewalt, *Z. Naturforsch.* **45b**, 731-740 (1990).
- (118) "Head-Tail oriented Nucleobases (B = Guanine, Cytosine) in *cis*-A<sub>2</sub>PtB<sub>2</sub> Resist Cyanide Substitution. Implications for the Nature of Strongly DNA-Bound Cisplatin", G. Frommer, B. Lippert, *Inorg. Chem.* **29**, 3259-3260 (1990).



- (119) "Unusual Dehydrogenation of a Diethylenetriamine (dien) Ligand to a Schiff Base Ligand in the Coordination Sphere of Platinum(IV)", F. Schwarz, H. Schöllhorn, U. Thewalt, B. Lippert, J. Chem. Soc., Chem. Commun. 1282-1284 (1990).
- (120) "Alkali-Nucleobase Interactions: Involvement of Exocyclic Oxygens of 1-Methyluracil and 1-Methylthymine in Na<sup>+</sup> Binding", B. Fischer, H. Preut, B. Lippert, H. Schöllhorn, U. Thewalt, Polyhedron 9, 2199-2204 (1990).
- (121) "Complete Displacement of N,O Bound Amino Acids in *cis*-[(NH<sub>3</sub>)<sub>2</sub>Pt (amac)]NO<sub>3</sub> Chelates by 9-Methylguanine (9-MeGH) and 9-Methyladenine (9-MeA). The Crystal Structure of *cis*-[(NH<sub>3</sub>)<sub>2</sub>Pt(9-MeA-*N*<sup>7</sup>)](NO<sub>3</sub>)<sub>2</sub> · 1.5H<sub>2</sub>O", A. Iakovidis, N. Hadjiliadis, F. Dahan, J.-P. Laussac, B. Lippert, Inorg. Chim. Acta 175, 57-63 (1990).
- (122) "Transition Metal Complexes of Pyrimidine Nucleobases and their Derivatives", B. Lippert in "Handbook of Nucleobase Complexes", Volume I, J. R. Lusty (Ed.), CRC Press, Boca Raton, pp. 9 - 46 (1990).
- (123) "Mono-, Di- and Trinuclear Pt(II), Mononuclear Pt(IV), Mixed Pt(II),Pt(IV), Mixed Pt(II), Ag(I) Complexes of 9-Methyladenine (9-MeA), and the X-Ray Structure of [(dien)Pt(9-MeA-*N*<sup>1</sup>)](NO<sub>3</sub>)<sub>2</sub> · H<sub>2</sub>O", F. Schwarz, B. Lippert, H. Schöllhorn, U. Thewalt, Inorg. Chim. Acta 176, 113-121 (1990).
- (124) "Palladium-1-Methylcytosine Chemistry: N3 and N3,N4 Metal Binding to 1-Methylcytosine and an Unexpected *trans* --> *cis* Isomerization of Two (NH<sub>3</sub>)<sub>2</sub>Pd(II) Entities", M. Krumm, I. Mutikainen, B. Lippert, Inorg. Chem. 30, 884-890 (1991).
- (125) "*cis*-Bis(1-methylcytosine-*N*)(*N,N,N,N*-tetramethylethylenediamine-*N,N*)platinum(II) Diperchlorate Monohydrate", H. Preut, G. Frommer, B. Lippert, Acta Crystallogr. C47, 852-854 (1991).
- (126) "Nucleobase Complexes with Metal-Metal Dative Bonds: Mixed Pt,Pd Compounds with Bridging 1-Methylcytosinato Ligands and Unprecedented Short Pt(II)-Pd(II) Contacts", M. Krumm, B. Lippert, L. Randaccio, E. Zangrando, J. Am. Chem. Soc. 113, 5129-5130 (1991).
- (127) "Ternary Complexes of Cisplatin with Amino Acids and Nucleobases. The Crystal Structure of *cis*-[(NH<sub>3</sub>)<sub>2</sub>Pt(1-MeC-*N*<sup>3</sup>)(gly-*N*)]NO · 2H<sub>2</sub>O", A. Iakovidis, N. Hadjiliadis, J. F. Britten, I. S. Butler, F. Schwarz, B. Lippert, Inorg. Chim. Acta 184, 209-220 (1991).
- (128) "A Model Compound for the Interaction of Thallium(I) with Nucleobases: Crystal and Molecular Structure of (Nitrate)(1-methylcytosine)thallium(I)", O. Renn, H. Preut, B. Lippert, Inorg. Chim. Acta 188, 133-137 (1991).
- (129) "Metal-Stabilized Rare Tautomers of Nucleobases. 3. (1-Methylthyminato-*N3*)(1-methylthymine-*N3*)-*cis*-diammineplatinum(II) Hemihexachloroplatinate(IV) Dihydrate", O. Renn, B. Lippert, A. Albinati, Inorg. Chim. Acta 190, 285-289 (1991).
- (130) "Modelling Platinum-DNA Interactions", B. Lippert et al., Platinum and Other Metal Coordination Compounds in Cancer Chemotherapy, S. B. Howell (Ed.), Plenum Press, pp. 25-35 (1991).
- (131) "A Model for a Platinated DNA Triplex: Watson-Crick and Metal-Modified Hoogsteen Pairing", I. Dieter-Wurm, M. Sabat, B. Lippert, J. Am. Chem. Soc. 114, 357-359 (1992).
- (132) "In Search of a O6,N7 Interaction of Pt<sup>IV</sup> with Guanine: X-Ray Structure and Solution Behaviour of *mer,trans*-[(dien)Pt(OH)<sub>2</sub>(9-MeGH-*N7*)](ClO<sub>4</sub>)<sub>2</sub> · 2H<sub>2</sub>O", G. Frommer, H. Preut, B. Lippert, Inorg. Chim. Acta 193, 111-117 (1992).

- (133) "Au(III) Glycyl-L-histidine Dipeptide Complexes: Preparation and X-Ray Structure of Monomeric and Cyclic Tetrameric Species", M. Wienken, B. Lippert, E. Zangrando, L. Randaccio, *Inorg. Chem.* 31, 1983-1985 (1992).
- (134) "Ag(I) Modified Base Pairing Involving Complementary (G,C) and Non-Complementary (A,C) Nucleobases. On the Possible Structural Role of Aqua Ligands in Metal-Modified Nucleobase Pairs", S. Menzer, M. Sabat, B. Lippert, *J. Am. Chem. Soc.* 114, 4644-4649 (1992).
- (135) "Platinum(II) Coordination to N1 and N7,N1 of Guanine: *cis*-DDP Model Cross-Links in the Interior and Simultaneously at the Periphery and the Interior of DNA", G. Frommer, I. Mutikainen, F. J. Pesch, E. C. Hillgeris, H. Preut, B. Lippert, *Inorg. Chem.* 31, 2429-2434 (1992).
- (136) "Diplatinum and Heteronuclear Complexes Derived from (tmeda)Pt(1-MeU)<sub>2</sub> (tmeda = *N,N,N',N'*-tetramethylethylenediamine; 1-MeU = 1-Methyluracilate-*N3*). Steric Effect of the tmeda Ligand on the Orientation of the Second Metal", G. Frommer, F. Lianza, A. Albinati, B. Lippert, *Inorg. Chem.* 31, 2434-2439 (1992).
- (137) "Mono- and Bis(9-Ethylguanine) Complexes of *trans*-(CH<sub>3</sub>NH<sub>2</sub>)<sub>2</sub>Pt<sup>II</sup>. X-Ray Structure of the 2:1 Complex and Redistribution of the 1:1 Compound", F. J. Pesch, M. Wienken, H. Preut, A. Tenten, B. Lippert, *Inorg. Chim. Acta* 197, 243-249 (1992).
- (138) "Metal-Stabilized Rare Tautomers of Nucleobases. 4. On the Question of Adenine Tautomerization by a Coordinated Platinum(II)", B. Lippert, H. Schöllhorn, U. Thewalt, *Inorg. Chim. Acta* 198-200, 723-732 (1992).
- (139) "Ternary Complexes of *trans*-Pt(NH<sub>3</sub>)<sub>2</sub>Cl<sub>2</sub> with Amino Acids and Nucleobases", V. Aletras, N. Hadjiliadis, B. Lippert, *Polyhedron* 11, 1359-1367 (1992).
- (140) "Linkage Isomerism in Square-Planar Complexes of Pt and Pd with Histidine and Derivatives", T. G. Appleton, F. J. Pesch, M. Wienken, S. Menzer, B. Lippert, *Inorg. Chem.* 31, 4410-4419 (1992).
- (141) "A Cyclic Tetranuclear Pt Complex of Uracil", H. Rauter, E. C. Hillgeris, B. Lippert, *J. Chem. Soc., Chem. Commun.* 1385-1386 (1992).
- (142) "From Cisplatin to Artificial Nucleases - the Role of Metal Ion-Nucleic Acid Interactions in Biology", B. Lippert, *BioMetals* 5, 195-208 (1992).
- (143) Offenlegungsschrift DE 4120524A1 "Neue cis-Platin-Derivate, diese enthaltende Arzneimittel und ihre Verwendung als Cytostatika und Virostatika", B. Lippert, F. J. Pesch, K. S. Zänker (24.12.1992).
- (144) "A Trinuclear Pt Adenine Complex Containing *cis*-(NH<sub>3</sub>)<sub>2</sub>Pt<sup>II</sup> Bound to N1 and (NH<sub>3</sub>)<sub>3</sub>Pt<sup>II</sup> Coordinated to N7", S. Jaworski, S. Menzer, B. Lippert, M. Sabat, *Inorg. Chim. Acta* 205, 31-34 (1993).
- (145) "Strong Metal-Metal Bonds Between *trans*-(amine)<sub>2</sub>Pt<sup>II</sup> and Pd<sup>II</sup> in Heteronuclear Complexes of Cytosine Nucleobases: Preparation, X-Ray Structures and NMR Spectroscopy", M. Krumm, E. Zangrando, L. Randaccio, S. Menzer, B. Lippert, *Inorg. Chem.* 32, 700-712 (1993).
- (146) "Mixed Pt<sup>II</sup>,Hg<sup>II</sup> Cytosine Nucleobase Complexes with Metal-Metal Bonds", M. Krumm, E. Zangrando, L. Randaccio, S. Menzer, A. Danzmann, D. Holthenrich, B. Lippert, *Inorg. Chem.* 32, 2183-2189 (1993).
- (147) "A Mixed Pt<sub>2</sub>Tl Complex of 1-Methylthymine: Structural Evidence for the Stereoactivity of the Tl<sup>I</sup> Electron Lone Pair and Unexpected Intracomplex Nucleobase Stacking", O. Renn, B. Lippert, I. Mutikainen, *Inorg. Chim. Acta* 208, 219-223 (1993).

- (148) "Metal-Modified Nucleobase Pairs: Mixed Adenine, Thymine Complexes of *trans*-a<sub>2</sub>Pt<sup>II</sup> (a = NH<sub>3</sub>, CH<sub>3</sub>NH<sub>2</sub>) with Watson-Crick and Hoogsteen Orientations of the Bases", O. Krizanovic, M. Sabat, R. Beyerle-Pfnür, B. Lippert, *J. Am. Chem. Soc.* **115**, 5538-5548 (1993).
- (149) "Preparation, X-Ray Structure and Solution Behavior of [Ag(9-EtGH-N7)<sub>2</sub>]NO<sub>3</sub>·H<sub>2</sub>O (9-EtGH = 9-Ethylguanine)", S. Menzer, E. C. Hillgeris, B. Lippert, *Inorg. Chim. Acta* **210**, 167-171 (1993).
- (150) "Formation and X-ray Crystal Structure Analysis of a Pt(IV) Complex of 1-methylthymine, obtained through Au(III) Treatment of a Pt(II) Complex, O. Renn, B. Lippert, A. Albinati, F. Lianza, *Inorg. Chim. Acta* **211**, 177-182 (1993).
- (151) "HgCl<sub>2</sub> Coordination to Guanine Derivatives: Structural and Spectroscopic Studies on the Interactions with 9-ethylguanine, 1,9-dimethylguanine and 2-amino-6-methoxy-9-methylpurine (6,9-dimethylguanine), S. Menzer, E. C. Hillgeris, B. Lippert, *Inorg. Chim. Acta* **211**, 221-226 (1993).
- (152) "Structural and Solution Study on Binary Peptide and Ternary Peptide-Nucleobase Complexes of Palladium(II)", M. Wienken, E. Zangrando, L. Randaccio, S. Menzer, B. Lippert, *J. Chem. Soc., Dalton Trans.* 3349-3357 (1993).
- (153) "On Metal-Modified Nucleobase Triples and Quartets", A. Schreiber, E. C. Hillgeris, B. Lippert, *Z. Naturforsch.* **48b**, 1603-1612 (1993).
- (154) "[*(en)*Pt(uracilate)]<sub>4</sub><sup>4+</sup>, A Metal Analogue of Calix[4]arene. Similarities and Differences With Classical Calix[4]arenes", H. Rauter, E. C. Hillgeris, A. Erxleben, B. Lippert, *J. Am. Chem. Soc.* **116**, 616-624 (1994).
- (155) "Multinuclear Metal Nucleobase Complexes", A. Schreiber, H. Rauter, M. Krumm, S. Menzer, E. C. Hillgeris, B. Lippert, *Metal-Based Drugs* **1**, 241-246 (1994).
- (156) "Interaction of the Lysine Side Chain Amino Group with Cu<sup>II</sup> in (Glycyl-L-lysine<sup>2-</sup>)Cu", G. Fusch, E. C. Hillgeris, B. Lippert, *Inorg. Chim. Acta* **217**, 33-38 (1994).
- (157) "Bis(1-methylcytosinium)Tetrachlorocobaltate(II), (C<sub>5</sub>H<sub>8</sub>N<sub>3</sub>O)<sub>2</sub>[CoCl<sub>4</sub>]", E. C. Hillgeris, B. Lippert, *Acta Crystallogr.* **C50**, 670-671 (1994).
- (158) "Simultaneous Binding of Soft and Hard Metals to a Pyrimidine Nucleobase: *trans*-K<sub>2</sub>[PtI<sub>2</sub>(1-MeU)<sub>2</sub>]·6H<sub>2</sub>O, an Anionic Pt-1-methyluracil (1-MeU) Complex arranged in Circles", O. Renn, B. Lippert, I. Mutikainen, *Inorg. Chim. Acta* **218**, 117-120 (1994).
- (159) "Kinetics and Mechanism of Substitution Reactions of *cis*-Diamminebis (1-methyluracilato)platinum(II) in Aqueous Solution", M. Schmülling, B. Lippert, R. van Eldik, *Inorg. Chem.* **33**, 3276-3280 (1994).
- (160) "[Zn<sub>3</sub>(OH)<sub>2</sub>(1-MeC-N3)<sub>5</sub>(1-MeC-O2)<sub>3</sub>]<sup>4+</sup> (1-MeC = 1-Methylcytosine): Structural Model for DNA Cross-Linking and DNA Rewinding by Zn(II)?", E. C. Fusch, B. Lippert, *J. Am. Chem. Soc.* **116**, 7204-2709 (1994).
- (161) "Simultaneous Binding of Soft and Hard Metals to a Pyrimidine Nucleobase: Preparation and X-ray Structure of [*(en)*Pd(1-MeT)<sub>2</sub>Na<sub>2</sub>](NO<sub>3</sub>)<sub>2</sub>·H<sub>2</sub>O (1-MeT = 1-methylthymine anion)", W. Micklitz, B. Lippert, F. Lianza, A. Albinati, *Inorg. Chim. Acta* **227**, 5-10 (1994).
- (162) "Conversion of Acetonitrile into Acetamide in the Co-ordination Spheres of *cis*- and *trans*-M<sup>II</sup>(amine)<sub>2</sub> (M = Pt or Pd). Solution and Crystal Structural Studies", A. Erxleben, I. Mutikainen, B. Lippert, *J. Chem. Soc., Dalton Trans.*, 3667-3675 (1994).

- (163) "Ternary Complexes of *cis*- and *trans*-Pt(NH<sub>3</sub>)<sub>2</sub>Cl<sub>2</sub> (*cis*, *trans*-DDP) with 9-Methylguanine (9-MeG), the Dipeptides glycylglycine (glygly), glycyl-L-alanine (glyala), glycyl-L-2-aminobutyric acid (gly-2-aba), glycyl-L-norvaline (glynval), glycyl-L-norleucine (glynleu), and of *trans*-Pt(NH<sub>3</sub>)<sub>2</sub>Cl<sub>2</sub> with Na-L-acetylhistidine", V. Aletras, N. Hadjiliadis, A. Lymberopoulou-Karaliota, I. Rombeck, B. Lippert, *Inorg. Chim. Acta* **227**, 17-23 (1994).
- (164) "Heteronuclear Complexes Derived from *trans*-a<sub>2</sub>PtL<sub>2</sub> (a = NH<sub>3</sub> or CH<sub>3</sub>NH<sub>2</sub>, L = 2-Pyridonate). Distorted Coordination Geometries of All Three Metals in *trans*-[a<sub>2</sub>PtL<sub>2</sub>CuL<sub>2</sub>Pt(a<sub>2</sub>)]<sup>2+</sup> and an Extraordinary Short Hydrogen Bond in *trans*-[a<sub>2</sub>PtL(LH)]<sup>+</sup>", A. Schreiber, O. Krizanovic, E. C. Fusch, B. Lippert, F. Lianza, A. Albinati, S. Hill, D. M. L. Goodgame, H. Stratemeier, M. A. Hitchman, *Inorg. Chem.* **33**, 6101-6110 (1994).
- (165) "Spectroscopic and Potentiometric Studies on the Interaction of *trans*-[(MeH<sub>2</sub>N)<sub>2</sub>Pt(mcyt)<sub>2</sub>PdCl]NO<sub>3</sub> (mcyt = 1-methylcytosinate) with Derivatives of Amino Acids", I. Sóvágó, A. Kiss, B. Lippert, *J. Chem. Soc., Dalton Trans.*, 489-494 (1995).
- (166) "Dimerization of *trans*-[Pt(NH<sub>3</sub>)(1-MeC-N3)(H<sub>2</sub>O)<sub>2</sub>]<sup>2+</sup> and Oxidation to a Diplatinum(III) Species in the Presence of Glycine. Relevance for Platinum Cytosine Blue", T. Wienkötter, M. Sabat, G. Fusch, B. Lippert, *Inorg. Chem.* **34**, 1022-1029 (1995).
- (167) "Metal-Nucleobase Chemistry: Coordination, Reactivity, and Base Pairing", B. Lippert in D. P. Kessissoglou (ed) *Bioinorganic Chemistry: An Inorganic Perspective of Life*, NATO ASI Series Vol. 459, Kluwer Acad. Publ. Dordrecht, 1995, pp. 179 - 199.
- (168) "Metal-Nucleobase Chemistry: From Models to Molecular Boxes", B. Lippert in S. Daolio, E. Tondello, P. A. Vigato (eds) *Syntheses and Methodologies in Inorganic Chemistry*, Università degli Studi di Padova, 1995, pp. 144 - 148.
- (169) "Theoretical Aspects of the Heterobimetallic Dimers with *T* Over *Square* Structural Motif. Synthesis and Structure of a Heteronuclear Pt,Pd Complex with 1-Methylcytosinato Bridging Ligands", C. Mealli, F. Pichierri, L. Randaccio, E. Zangrando, M. Krumm, D. Holthenrich, B. Lippert, *Inorg. Chem.* **34**, 3418-3424 (1995).
- (170) "Acid-Base and Metal Ion-Binding Properties of 2'-Deoxycytidine 5'-Monophosphate (dCMP<sup>2-</sup>) Alone and Coordinated to *cis*-Diamminplatinum(II). Formation of Mixed Metal Ion Nucleotide Complexes", B. Song, G. Feldmann, M. Bastian, B. Lippert, H. Sigel, *Inorg. Chim. Acta*, **225**, 99-109 (1995).
- (171) "Cytosine Nucleobase as a Tridentate Ligand: Metal Binding to N(3), N(4) and O(2) in *trans*-[(NH<sub>2</sub>Me)<sub>2</sub>Pt(dmcyt)<sub>2</sub>Ag<sub>2</sub>][(NO<sub>3</sub>)<sub>2</sub>] (dmcyt = 1,5-dimethylcytosinate)", D. Holthenrich, M. Krumm, E. Zangrando, F. Pichierri, L. Randaccio, B. Lippert, *J. Chem. Soc., Dalton Trans.*, 3275-3279 (1995).
- (172) "Heteronuclear Nucleobase Complexes as Tools for the Isolation of the Minor Rotamer of the Parent Compound: Synthesis and Crystal Structure Determinations of *Head-Head* and *Head-Tail* Forms of *trans*-[(CH<sub>3</sub>NH<sub>2</sub>)<sub>2</sub>Pt(1-MeC-N3)<sub>2</sub>]<sup>2+</sup> (1-MeC = 1-methylcytosine)", D. Holthenrich, I. Sóvágó, G. Fusch, A. Erxleben, E. C. Fusch, I. Rombeck, B. Lippert, *Z. Naturforsch.*, **50b**, 1767-1775 (1995); Erratum: *Z. Naturforsch.*, **51b**, 1368 (1996).
- (173) "Unusual Hydrogen Bonding Patterns of N7-Metalated, N1-Deprotonated Guanine Nucleobases: Acidity Constants of *cis*-[(NH<sub>3</sub>)<sub>2</sub>Pt(HG)<sub>2</sub>]<sup>2+</sup> and The Crystal Structures of *cis*-(NH<sub>3</sub>)<sub>2</sub>PtG · 4H<sub>2</sub>O and *cis*-(NH<sub>3</sub>)<sub>2</sub>PtG<sub>2</sub> · HG · 7H<sub>2</sub>O (HG = 9-Ethylguanine)", G. Schröder, B. Lippert, M. Sabat, C. J. L. Lock, R. Faggiani, B. Song, H. Sigel, *J. Chem. Soc., Dalton Trans.*, 3767-3775 (1995).
- (174) "On Mixed-Valence Dinuclear Pt<sup>II</sup>,Pt<sup>III</sup> Nucleobase Complexes Derived from *cis*-Diamineplatinum(II): Effect of Steric Bulk of Amine Ligands on Pt-oxidation State", M. Peilert, A. Erxleben, B. Lippert, *Z. anorg. allg. Chem.*, **622**, 267-274 (1996).

- (175) "*trans*-Diammineplatinum(II) - What Makes it Different from *cis*-DDP? Coordination Chemistry of a Neglected Relative of Cisplatin and its Interaction with Nucleic Acids", B. Lippert, *Met. Ions Biol. Syst.* **33**, 105-141 (1996).
- (176) "Metal Ions in Multiple-Stranded DNA", M. Sabat, B. Lippert, *Met. Ions Biol. Syst.* **33**, 143-176 (1996).
- (177) "The Uracil C(5) Position as a Metal Binding Site: Solution and X-Ray Crystal Structure Studies of Pt(II) and Hg(II) Compounds", M. Höpp, A. Erxleben, I. Rombeck, B. Lippert, *Inorg. Chem.* **35**, 397-403 (1996); Correction: *Inorg.Chem.* **35**, 6352 (1996).
- (178) "Model of the Second Most Abundant Cisplatin-DNA Cross-Link: X-Ray Crystal Structure and Conformational Analysis of *cis*-[(NH<sub>3</sub>)<sub>2</sub>Pt(9-MeA-N7)](NO<sub>3</sub>) · 2H<sub>2</sub>O (9-MeA = 9-Methyladenine; 9-EtGH = 9-Ethylguanine)", G. Schröder, J. Kozelka, M. Sabat, M.H. Fouchet, R. Beyerle-Pfnür, B. Lippert, *Inorg. Chem.* **35**, 1647-1652 (1996).
- (179) "Automatisierte Festphasensynthese platinierter Oligonucleotide via Nucleosidphosphonate", J. Schliepe, U. Berghoff, B. Lippert, D. Cech, *Angew. Chem.* **108**, 705-707(1996); *Angew. Chem. Int. Ed. Engl.* **35**, 646-648 (1996).
- (180) "Bis(purine) Complexes of *trans*-a<sub>2</sub>Pt<sup>II</sup>: Preparation and X-ray Structures of Bis(9-methyladenine) and Mixed 9-Methyladenine, 9-Methylguanine Complexes and Chemistry Relevant to Metal-Modified Nucleobase Triples and Quartets", A. Schreiber, M. S. Lüth, A. Erxleben, E. C. Fusch, B. Lippert, *J. Am. Chem. Soc.* **118**, 4124-4132 (1996); Correction: *J. Am. Chem. Soc.* **121**, 3248 (1999).
- (181) "Heteronuclear Pt-Pd, Pt<sub>2</sub>Cu and Pt<sub>2</sub>Ni complexes with bridging acetamidate: crystal structures and spectroscopic studies", A. Erxleben, A. Albinati, B. Lippert, *J. Chem.Soc., Dalton Trans.*, 1823-1828 (1996).
- (182) "Selbstkomplementarität bei 7,9-Dimethylguanine: ein Basenpaar mit drei Wasserstoffbrücken", S. Metzger, B. Lippert, *Angew. Chem.* **108**, 1321-1323 (1996); *Angew. Chem. Int.Ed. Engl.* **35**, 1228-1229 (1996).
- (183) "Ternary Complex of Cisplatin with Glycine and 1-Methyluracil: *cis*-[(NH<sub>3</sub>)<sub>2</sub>Pt(gly-N)(1-MeU-N3)]ClO<sub>4</sub>·H<sub>2</sub>O", S. Höhmann, A. Erxleben, T. Wienkötter, B. Lippert, *Inorg. Chim. Acta* **247**, 79-83 (1996).
- (184) "Palladium-1-Methylcytosine Compounds: Crystal Structure of the Tris(nucleobase) Complex [(NH<sub>3</sub>)Pd(1-MeC-N3)<sub>3</sub>](ClO<sub>4</sub>) · H<sub>2</sub>O. Role of Intra-molecular H-Bonding in Stabilizing the Head-Tail-Head Rotamer", D. Holthenrich, E. Zangrando, F. Pichierri, L. Randaccio, B. Lippert, *Inorg. Chim. Acta* **248**, 175-179 (1996).
- (185) "First examples of polymeric mixed-metal (Pt-Ag) complexes containing single acetamidate bridges: *cis*-[NH<sub>3</sub>)<sub>2</sub>Pt(NHCOMe)<sub>2</sub>Ag]NO · 4H<sub>2</sub>O and *trans*-[(NH<sub>3</sub>)<sub>2</sub>Pt (NHCOMe)<sub>2</sub>Ag] NO<sub>3</sub> · 1.5H<sub>2</sub>O", A. Erxleben, B. Lippert, *J. Chem. Soc., Dalton Trans.*, 2329-2333 (1996).
- (186) "Extent of the Acidification by N7-Coordinated *cis*-Diammine-Platinum(II) on the Acidic Sites of Guanine Derivatives", B. Song, G. Oswald, M. Bastian, H. Sigel, B. Lippert, *Metal-Based Drugs* **3**, 131-141 (1996).
- (187) "(1,3-Dimethyluracil-5-yl)mercury(II): Preparative, Structural, and NMR Spectroscopic Studies of an Analog of CH<sub>3</sub>Hg<sup>II</sup>", F. Zamora, M. Sabat, B. Lippert, *Inorg. Chem.* **35**, 4858-4864 (1996).
- (188) "*trans*-Bis(methylamine-N)bis(1-methylcytosine-N<sup>3</sup>)platinum(II) Bis[tetrachloro-thallate(II)]", E. Zangrando, L. Randaccio, F. Pichierri, B. Lippert, D. Holthenrich, *Acta Cryst.* **C52**, 2468-2470 (1996).

- (189) "Metal-stabilized rare tautomers of nucleobases: 5. Imino-oxo tautomer of cytosine coordinated to Pt(II) with metal and nucleobase in *syn* and *anti* orientations", F. Pichierri, D. Holthenrich, E. Zangrando, B. Lippert, L. Randaccio, *J. Biol. Inorg. Chem.* **1**, 439-445 (1996).
- (190) "Structural Aspects of Pt-Complexes Containing Nucleobases", E. Zangrando, F. Pichierri, L. Randaccio, B. Lippert, *Coord. Chem. Rev.* **156**, 275-332 (1996).
- (191) "Heteronuclear  $\mu$ -1-methylcytosinato-*N3,N4* complexes containing very short Pt→Cu dative bonds", G. Fusch, E. C. Fusch, A. Erxleben, J. Hüttermann, H. J. Scholl, B. Lippert, *Inorg. Chim. Acta* **252**, 167-178 (1996).
- (192) "Interstrand cross-linking reaction in triplexes containing a monofunctional trans-platin adduct", C. Colombier, B. Lippert, M. Leng, *Nucl. Acids Res.* **24**, 4519-4524 (1996).
- (193) "A Metalated Guanine, Cytosine Base Quartet with a Novel GC Pairing Pattern Involving H(5) of C", S. Metzger, B. Lippert, *J. Am. Chem. Soc.* **118**, 12467-12468 (1996).
- (194) "*cis*-[Pt(NH<sub>3</sub>)<sub>2</sub>(9-MeA-*N7*)(9-EtGH-*N7*)](PF<sub>6</sub>)<sub>2</sub> · 1.5 H<sub>2</sub>O (9-MeA = 9-Methyl-adenine; 9-EtGH = 9-Ethylguanine): Right-Handed Helicoidal Model Compound for the Intrastrand A,G Cross-Link in Duplex DNA", G. Schröder, M. Sabat, I. Baxter, J. Kozelka, B. Lippert, *Inorg. Chem.* **36**, 490-493 (1997).
- (195) "Ternary Palladium(II)-glycylmethionine-Nucleobase Complexes: Solution Studies and Crystal Structure of the 9-Methylguanine Compound", M. Wienken, A. Kiss, I. Sóvágó, E. C. Fusch, B. Lippert, *J. Chem. Soc., Dalton Trans.*, 563-568 (1997).
- (196) "The N3 Position of N9-Substituted Adenine as a Metal Ion Binding Site: Structural and Solution Studies with Pd<sup>II</sup> and Pt<sup>II</sup> Complexes of N6', N6', N9-Trimethyladenine", C. Meiser, B. Song, E. Freisinger, M. Peilert, H. Sigel, B. Lippert, *Chem. Eur. J.* **3**, 388-398 (1997).
- (197) "Hexanuclear hydrolysis products of the uracil nucleobase complex (1,3-dimethyluracil-5-yl) mercury(II) nitrate", F. Zamora, M. Sabat, M. Janik, Ch. Siethoff, B. Lippert, *J. Chem. Soc., Chem. Commun.*, 485-486 (1997).
- (198) "Pyrimidine Nucleobases as Versatile and Multidentate Ligands for Heavy Metal Ions. Significance of Metal Binding to the C(5) Sites of Uracil and Cytosine", F. Zamora, P. Amo-Ochoa, B. Lippert, in N. D. Hadjiladis (ed) *Cytotoxic, Mutagenic and Carcinogenic Potential of Heavy Metals Related to Human Environment*, NATO ASI Series Vol 2/26, Kluwer Acad. Publ. Dordrecht, 1997, pp. 511-520.
- (199) "Potentiometric and Spectroscopic Studies on the Ternary Complexes of Copper(II) and Palladium(II) with Peptides and Nucleobases", I. Sóvágó, A. Kiss, E. Farkas, B. Lippert, in N. D. Hadjiladis (ed) *Cytotoxic, Mutagenic and Carcinogenic Potential of Heavy Metals Related to Human Environment*, NATO ASI Series Vol 2/26, Kluwer Acad. Publ. Dordrecht, 1997, pp. 521-535.
- (200) "Metal-modified nucleobase pairs involving 7,9-dimethylguanine: *trans*-a<sub>2</sub>Pt<sup>II</sup> analogues of Watson-Crick GC and homo GG pairs", S. Metzger, A. Erxleben, B. Lippert, *J. Biol. Inorg. Chem.* **2**, 256-264 (1997).
- (201) "Metal-Stabilized Rare Tautomers of Nucleobases. 6. Imino Tautomer of Adenine in a Mixed Nucleobase Complex of Hg(II)", F. Zamora, M. Kunsman, M. Sabat, B. Lippert, *Inorg. Chem.* **36**, 1583-1587 (1997).
- (202) "H<sub>3</sub>O<sup>+</sup> bridging in a Pt(IV) nucleobase complex leading to infinite chains: *trans, trans, trans*-[Pt(NH<sub>3</sub>)<sub>2</sub>(1-MeU)<sub>2</sub>(H<sub>3</sub>O<sub>2</sub>)<sub>n</sub>(NO<sub>3</sub>)<sub>n</sub> · (4H<sub>2</sub>O)<sub>n</sub>(1-MeU=1-methyluracilate)", F. Lianza, A. Albinati, B. Lippert, *Inorg. Chim. Acta* **255**, 313-318 (1997).

- (203) "Platinum(II) nucleobase complexes containing up to four different ligands: syntheses and X-ray structure determinations of *cis*-[Pt(1-MeC)<sub>2</sub>(NH<sub>3</sub>)]ClO<sub>4</sub> and [Pt(1-MeC)(9-EtGH)(NH<sub>3</sub>)]ClO<sub>4</sub>·1.5H<sub>2</sub>O", T. Wienkötter, M. Sabat, G. Trötscher-Kaus, B. Lippert, *Inorg. Chim. Acta* **255**, 361-366 (1997).
- (204) "Cyclic Metal Complexes of Nucleobases and Other Heterocycles: Molecular Boxes, Rectangles and Hexagons", H. Rauter, I. Mutikainen, M. Blomberg, C. J. L. Lock, P. Amo-Ochoa, E. Freisinger, L. Randaccio, E. Zangrando, E. Chiarparin, B. Lippert, *Angew. Chem.* **109**, 1353-1357 (1997); *Angew. Chem. Int. Ed. Engl.* **36**, 1296-1301 (1997).
- (205) "Uracil quartet formation through non-covalent interaction with a neutral metal ammine complex", H. Witkowski, E. Freisinger, B. Lippert, *J. Chem. Soc., Chem. Commun.* 1315-1316 (1997).
- (206) "Qualitative EH-FMO interpretation of the <sup>195</sup>Pt NMR shifts in heterobi-metallic complexes containing the Pt-Pd-Y core: an inverse halogen dependence", F. Pichierri, E. Chiarparin, E. Zangrando, L. Randaccio, D. Holthenrich, B. Lippert, *Inorg. Chim. Acta* **264**, 109-116 (1997).
- (207) "+3 Oxidation state of platinum in dinuclear complexes with thymine nucleobases: structural and solution studies", M. Peilert, S. Weißbach, E. Freisinger, V. I. Korsunsky, B. Lippert, *Inorg. Chim. Acta* **265**, 187-195 (1997).
- (208) "Synthesis and Spectroscopy of Phosphonate Derivatives of Uracil and Thymine. X-Ray Crystal Structure of Diethyl 6-Uracilmethylphosphonate", J. Ochocki, A. Erxleben, B. Lippert, *J. Heterocyclic Chem.* **34**, 1179-1184 (1997).
- (209) "Effects of metal-ion binding on nucleobase pairing: stabilization, prevention and mismatch formation", B. Lippert, *J. Chem. Soc., Dalton Trans.*, 3971-3976 (1997).
- (210) "Modelling Ternary Metal Ion-Protein-nucleic Acid Complex Formation", B. Lippert, I. Rombeck, S. Höhmann in "Bioinorganic Chemistry: Transition Metals in Biology and their Coordination Chemistry" (A. X. Trautwein, ed.), Wiley-VCH: Weinheim (1997), 129-144.
- (211) "Solution equilibria of the ternary complexes of [Pd(dien)Cl]<sup>+</sup> and [Pd(terpy)Cl]<sup>+</sup> with nucleobases and N-acetyl amino acids", A. Kiss, E. Farkas, I. Sóvágó, B. Thormann, B. Lippert, *J. Inorg. Biochem.* **68**, 85-92 (1997).
- (212) "Cytosine nucleobase as a tridentate ligand: Metal binding to N<sup>3</sup>, N<sup>4</sup> and O<sup>2</sup> in the trinuclear complex *cis*-[Pt(NH<sub>3</sub>)<sub>2</sub>(mcyt)<sub>2</sub>{Pd(en)}<sub>2</sub>]-[NO<sub>3</sub>]<sub>4</sub>·H<sub>2</sub>O (mcyt = 1-methylcytosinate, en = ethane-1,2-diamine)", D. Holthenrich, E. Zangrando, E. Chiarparin, B. Lippert, L. Randaccio, *J. Chem. Soc., Dalton Trans.*, 4407-4410 (1997).
- (213) "A bis (9-methyladeninium) complex of Hg(II) with a highly irregular coordination geometry: [Hg(9-MeAH-N7)<sub>2</sub>(H<sub>2</sub>O)(NO<sub>3</sub>)<sub>3</sub>]ClO<sub>4</sub>", F. Zamora, M. Sabat, B. Lippert, *Inorg. Chim. Acta* **267**, 87-91 (1998).
- (214) "If Watson-Crick and Hoogsteen sites of guanine are blocked, hydrogen bonding with cytosine is *via* N<sup>2</sup> and N<sup>3</sup>", R. K. O. Sigel, E. Freisinger, B. Lippert, *J. Chem. Soc., Chem. Commun.*, 219-220 (1998).
- (215) "Monofunctional *trans*-Pt<sup>II</sup>(NH<sub>3</sub>)<sub>2</sub> modification of pyrimidine-rich deoxyoligo-nucleotides: direct platination and use of a protective group", U. Berghoff, K. Schmidt, M. Janik, G. Schröder, B. Lippert, *Inorg. Chim. Acta* **269**, 135-142 (1998).
- (216) "Water wafers: structure and melting of a hydrate inclusion compound of a neutral Pt(IV) complex with 1-methylcytosinato ligands", L. Randaccio, E. Zangrando, A. Cesàro, D. Holthenrich, B. Lippert, *J. Mol. Structure* **440**, 221-226 (1998).

- (217) "Molecular Triangle from enPt<sup>II</sup> and 2,2'-Bipyrazine", R.-D. Schnebeck, L. Randaccio, E. Zangrando, B. Lippert, *Angew. Chem.* **110**, 128-130 (1998); *Angew. Chem. Int. Ed. Engl.* **37**, 119-121 (1998).
- (218) "Affinity of the Iminooxo Tautomer Anion of 1-Methylcytosine in *trans*-[Pt(NH<sub>3</sub>)<sub>2</sub>(1-MeC-N4)]<sup>2+</sup> for Heterometals", J. Müller, E. Zangrando, N. Pahlke, E. Freisinger, L. Randaccio, B. Lippert, *Chem. Eur. J.* **4**, 397-405 (1998).
- (219) "Au<sup>III</sup> binding to C5 of the model nucleobase 1,3-dimethyluracil (1,3-DimeU): Preparation and X-ray crystal structures of *trans*-K[Au(CN)<sub>2</sub>Cl(1,3-DimeU)] and of two derivatives", F. Zamora, E. Zangrando, M. Furlan, L. Randaccio, B. Lippert, *J. Organomet. Chem.* **552**, 127-134 (1998).
- (220) "Pd(gly-L-his-L-lys)Cl: solution structure and ternary complex formation with mono- and tetranucleotides", I. Rombeck, B. Lippert, *Inorg. Chim. Acta*, **273**, 31-40 (1998).
- (221) "Dimerization of metallated nucleobase pairs *via* hydrogen-bond formation: open metallated base quartets of mixed adenine-N<sup>3</sup>, guanine-N<sup>7</sup> complexes of *trans*-(H<sub>3</sub>N)<sub>2</sub>Pt<sup>II</sup> with two different guanine-guanine pairing schemes", C. Meiser, E. Freisinger, B. Lippert, *J. Chem. Soc., Dalton Trans.*, 2059-2064 (1998).
- (222) "Cis-diammineplatinum(II) forms a macrochelate with 2'-deoxycytidine 5'-monophosphate (dCMP<sup>2-</sup>)! Reactivity and acid-base properties of *cis*-Pt(NH<sub>3</sub>)<sub>2</sub>(dCMP)", G. Oswald, I. Rombeck, B. Song, H. Sigel, B. Lippert, *J. Biol. Inorg. Chem.* **3**, 236-245 (1998).
- (223) "Taking Advantage of Right Angles in *N1,N7*-Diplatinated Purine Nucleobases: Toward Molecular Squares, Rectangles, and Meanders", M. S. Lüth, E. Freisinger, F. Glahé, J. Müller, B. Lippert, *Inorg. Chem.* **37**, 3195-3203 (1998).
- (224) "A cyclometallated Pd(II) complex containing a cytosine model nucleobase", C. Navarro-Ranninger, E. I. Montero, I. López-Solera, J. R. Masaguer, B. Lippert, *J. Organometallic Chemistry* **558**, 103-110 (1998).
- (225) "Acid-Base and Metal-Ion-Binding Properties of the Quaternary [*cis*-(NH<sub>3</sub>)<sub>2</sub>Pt(dGuo)(dGMP)] Complex Formed Between *cis*-Diammine-platinum(II), 2'-Deoxyguanosine (dGuo), and 2'-Deoxyguanosine 5'-Monophosphate (dGMP<sup>2-</sup>) in Aqueous Solution", H. Sigel, B. Song, G. Oswald, B. Lippert, *Chem. Eur. J.* **4**, 1053-1060 (1998).
- (226) "Creating regular arrangements of nucleobases through metal ion coordination and H bond formation", B. Lippert, P. Amo-Ochoa, W. Brüning, E. Freisinger, M. S. Lüth, S. Meier, C. Meiser, S. Metzger, H. Rauter, A. Schreiber, R. K. O. Sigel, H. Witkowski, *Pure & Appl. Chem.* **70**, 977-983 (1998).
- (227) "The effects of N7-coordinated *cis*-diammine-platinum(II) on the acid-base properties of guanine derivatives", H. Sigel, B. Lippert, *Pure & Appl. Chem.* **70**, 845-854 (1998).
- (228) "Tris and tetrakis(1-methylcytosine) complexes of Pt(II): Syntheses and X-ray structures of [Pt(1-MeC-N3)<sub>3</sub>Cl]<sup>+</sup> and [Pt(1-MeC-N3)<sub>4</sub>]<sup>2+</sup> compounds", A. Hegmans, E. Freisinger, E. Zangrando, A. Ashfar, E. Hübener, T. G. Appleton, B. Lippert, *Inorg. Chim. Acta* **279**, 152-158 (1998).
- (229) "Synthetic Ways to Tris(nucleobase) Complexes Derived from *cis*-Diammineplatinum(II) and a Platinum(II) Complex Containing Four Different Ligands, Three of Which Are Nucleobases", A. Hegmans, M. Sabat, I. Baxter, E. Freisinger, B. Lippert, *Inorg. Chem.* **37**, 4921-4928 (1998).
- (230) "Quantification of Outersphere Macrochelate Formation in the Ternary *Cis*-Diammine-Platinum(II)-Bis-2'-Deoxyguanosine 5'-Monophosphate Complex, *cis*-(NH<sub>3</sub>)<sub>2</sub>Pt(dGMP)<sup>2-</sup>, and Formation of Quaternary Mixed Metal Ion Species with Magnesium(II), Copper(II) or Zinc(II) in Aqueous Solution", B. Song, G. Oswald, J. Zhao, B. Lippert, H. Sigel, *Inorg. Chem.* **37**, 4857-4864 (1998).



- (231) "Mixed Adenine, Guanine Nucleobase Quartets: Metal-Modified Forms of an Open U and a Closed Rectangle", M. S. Lüth, E. Freisinger, F. Glahé, B. Lippert, *Inorg. Chem.* **37**, 5044-5045 (1998).
- (232) "Interactions between  $[\text{AuX}_4]^-$  (X = Cl, CN) and cytosine and guanine model nucleobases: salt formation with (hemi-) protonated bases, coordination, and oxidative degradation of guanine", A. Schimanski, E. Freisinger, A. Erxleben, B. Lippert, *Inorg. Chim. Acta* **283**, 223-232 (1998).
- (233) "Synthesis and structure of (1,3-dimethyluracil-5-yl) mercury (II) complexes with aromatic nitrogen donor ligands", F. Zamora, M. Sabat, B. Lippert, *Inorg. Chim. Acta* **282**, 237-242 (1998).
- (234) "Metalated Nucleobase Quartets: Dimerization of a Metal-Modified Guanine, Cytosine Pair of *trans*-( $\text{NH}_3$ )<sub>2</sub>Pt<sup>II</sup> and Formation of CH $\cdots$ N Hydrogen Bonds", R. K. O. Sigel, E. Freisinger, S. Metzger, B. Lippert, *J. Am. Chem. Soc.* **120**, 12000-12007 (1998).
- (235) "Nuevos complejos biorganometálicos con iones metálicos pesados por enlace a la posición C(5) del uracilo y la citosina", F. Zamora, P. Amo-Ochoa, B. Lippert, *Revista de Química* **12**, 5-19 (1998).
- (236) "A novel, highly charged (+12) anion receptor, which simultaneously binds NO<sub>3</sub><sup>-</sup> and PF<sub>6</sub><sup>-</sup> ions", R. D. Schnebeck, E. Freisinger, B. Lippert, *Angew. Chem.* **111**, 235-238 (1999); *Angew. Chem. Int. Ed. Engl.* **38**, 168-171 (1999).
- (237) "Combining four different model nucleobases (uracil, adenine, guanine, cytosine) via metal binding and H bond formation in single compound", R. K. O. Sigel, S. M. Thompson, E. Freisinger, B. Lippert, *J. Chem. Soc., Chem. Commun.*, 19-20 (1999).
- (238) "Crystal structures of a protonated form of *trans*-[Pt(NH<sub>3</sub>)<sub>2</sub>(mura)<sub>2</sub>] and of a derivative containing three different metal ions, Pt<sup>2+</sup>, Ag<sup>+</sup>, and Na<sup>+</sup> (mura = 1-methyluracilate). Major difference in packing between heteronuclear pyrimidine nucleobase complexes of *cis*- and *trans*-(NH<sub>3</sub>)<sub>2</sub>Pt<sup>II</sup>", F. Zamora, H. Witkowski, E. Freisinger, J. Müller, B. Thormann, A. Albinati, B. Lippert, *J. Chem. Soc., Dalton Trans.*, 175-182 (1999).
- (239) "Extent of intramolecular stacking interactions in the mixed-ligand complexes formed in aqueous solution by copper(II), 2,2'-bipyridine of 1,10-phenanthroline and 2'-deoxyguanosine 5'-monophosphate", M. S. Lüth, L. E. Kapinos, B. Song, B. Lippert, H. Sigel, *J. Chem. Soc., Dalton Trans.*, 357-365 (1999).
- (240) "[ (Ethylenediamine)Pt(uracilate) ]<sub>4</sub>, a metal analogue of calix[4]arene. Coordination and anion host-guest chemistry related to its conformational dynamics", J. A. R. Navarro, M. B. L. Janik, E. Freisinger, B. Lippert, *Inorg. Chem.* **38**, 426-432 (1999).
- (241) "Reactivity of an extremely sterically crowded monofunctional Pt complex, [Pt(1-MeC-N3)<sub>3</sub>(H<sub>2</sub>O)]<sup>2+</sup> (1-MeC = 1-methylcytosine) towards model nucleobases and selectivity towards guanine in single- and double-stranded deoxyoligo-nucleotides", M. B. L. Janik, A. Hegmans, E. Freisinger, B. Lippert, *J. Biol. Inorg. Chem.* **4**, 130-139 (1999).
- (242) "Impact of Cisplatin on the Recent Development of Pt Coordination Chemistry: A Case Study", B. Lippert, *Coord. Chem. Rev.* **182**, 263-295 (1999).
- (243) "Metal-Modified Base Pairs Involving Different Donor Sites of Purine Nucleobases: *trans*-[a<sub>2</sub>Pt(7,9-DimeG-NI)(9-EtGH-N7)]<sup>2+</sup> and *trans*-[a<sub>2</sub>Pt(7,9-DimeG-NI)(9-EtG-N7)]<sup>+</sup> (a = NH<sub>3</sub> or CH<sub>3</sub>NH<sub>2</sub>; 9-EtGH = 9-Ethylguanine; 7,9-DimeG = 7,9-Dimethylguanine). Possible Relevance to Metalated DNA Triplex Structures", R. K. O. Sigel, M. Sabat, E. Freisinger, A. Mower, B. Lippert, *Inorg. Chem.* **38**, 1481-1490 (1999).
- (244) "Platinum Blues: On the Way toward Unraveling a Mystery", in "Cisplatin: Chemistry and Biochemistry of a Leading Anticancer Drug", B. Lippert (ed.), HVCA, Zürich, and Wiley-VCH, Weinheim (1999), pp. 379-403.

- (245) "Anion pore structure through packing of molecular triangles", R.-D. Schnebeck, E. Freisinger, B. Lippert, Chem. Commun., 675-676 (1999).
- (246) "Role of Metal Ions in Antisense and Antigene Strategies", B. Lippert, M. Leng, Topics in Biol. Inorg. Chem., Vol. 1: Metallopharmaceuticals, Eds. M. J. Clarke, P. J. Sadler, Springer, Heidelberg, (1999), pp. 117-142.
- (247) "Molecular Architecture with Metal Ions, Nucleobases and other Heterocycles", J. A. R. Navarro, B. Lippert, Coord. Chem. Rev. 185-186, 653-667 (1999).
- (248) "A Major, pH-Induced Stereochemical Switch of Pairs of *trans*-Oriented Ligands in Complexes of *trans*-a<sub>2</sub>Pt<sup>II</sup> (a = NH<sub>3</sub>, CH<sub>3</sub>NH<sub>2</sub>)", J. Müller, F. Glahé, E. Freisinger, B. Lippert, Inorg. Chem. 38, 3160-3166 (1999).
- (249) "Mono- and Di-nuclear Complexes of (trpy) M<sup>II</sup> (M = Pd, Pt) with the Model Nucleobase 1-Methylcytosine. Crystal Structure and NMR Solution Studies", S. Cosar, M. B. L. Janik, M. Flock, E. Freisinger, E. Farkas, B. Lippert, J. Chem. Soc., Dalton Trans., 2329-2336 (1999).
- (250) "5,5'-Diuracilyl Species from Uracil and [AuCl<sub>4</sub>]<sup>-</sup>: Nucleobase Dimerization Brought about by a Metal", F. Zamora, P. Amo-Ochoa, B. Fischer, A. Schimanski, B. Lippert, Angew. Chem., 111 2415-2417 (1999); Angew. Chem. Int. Ed. Engl. 38, 2274-2275 (1999).
- (251) "Effects of (N7)-Coordinated Nickel(II), Copper(II), or Platinum(II) on the Acid-Base Properties of Guanine Derivatives and Other Related Purines", B. Song, J. Zhao, R. Griesser, C. Meiser, H. Sigel, B. Lippert, Chem. Eur. J. 5, 2374-2387 (1999).
- (252) "Three-dimensional solution structures of two DNA dodecamers through full relaxation matrix analysis", I. Bertini, A. Clemente; I. Rombeck, A. Rosato, P. Turano, B. Lippert, F. Quadrifoglio; Magn. Reson. Chem. 37, 564-572 (1999).
- (253) "Pt as Mediator of Strong Antiferromagnetic Coupling between Two Cu<sup>II</sup> Ions in a Heteronuclear Cu<sup>II</sup>Pt<sup>II</sup>Cu<sup>II</sup> Complex of the Model Nucleobase 1-Methylcytosine", A. Hegmans, E. Zangrando, E. Freisinger, F. Pichierri, L. Randaccio, C. Mealli, M. Gerdan, A. X. Trautwein, B. Lippert, Chem. Eur. J. 5, 3010-3018 (1999).
- (254) "Metal ions in non-complementary DNA base pairs: an ab initio study of Cu(I), Ag(I), and Au(I) complexes with the cytosine-adenine base pair", J. Šponer, M. Sabat, J. V. Burda, J. Leszczynski, P. Hobza, B. Lippert, J. Biol. Inorg. Chem. 4, 537-545 (1999).
- (255) "*trans*-(NH<sub>3</sub>)<sub>2</sub>Pt<sup>II</sup>-modified deoxyoligonucleotides as potential antisense agents: cross-linking reactions between two 12-mers", M.B.L. Janik, B. Lippert, J. Biol. Inorg. Chem. 4, 645-653 (1999).
- (256) "Pt<sup>II</sup> coordination to guanine-N7: enhancement of the stability of the Watson-Crick base pair with cytosine", R.K.O. Sigel, B. Lippert, Chem. Comm., 2167-2168 (1999).
- (257) "Metal-Stabilized Rare Tautomers and Mispairs of DNA Bases: N6-Metalated Adenine and N4-Metalated Cytosine, Theoretical and Experimental Views", J. Šponer, J. E. Šponer, L. Gorb, J. Leszczynski, B. Lippert, J. Phys. Chem. A 103, 11406-11413 (1999).
- (258) "[ (Ethylenediamine)Pt(uracilate) ]<sub>4</sub> - A Metal Analogue of Calix[4]arene: Coordination Chemistry of Its 1,3-Alternate Conformer towards First-Row Transition-Metal Ions", J. A. R. Navarro, E. Freisinger, B. Lippert, Eur. J. Inorg. Chem., 147-151 (2000).
- (259) "Solid-Phase Synthesis of a Monofunctional *trans*-a<sub>2</sub>Pt<sup>II</sup> Complex Tethered to a Single-Stranded Oligonucleotide", K. S. Schmidt, D. V. Filippov, N. J. Meeuwenoord, G. A. van der Marel, J. H. van Boom, B. Lippert, J. Reedijk, Angew. Chem. 112, 383-385 (2000); Angew. Chem. Int. Ed. 39, 375-377 (2000).

- (260) "Molecular Architecture Based on Metal Triangles Derived from 2,2'-Bipyrazine (Bpz) and  $\text{EnM}^{\text{II}}$  ( $\text{M} = \text{Pt}, \text{Pd}$ )", R.-D. Schnebeck, E. Freisinger, F. Glahé, B. Lippert, *J. Am. Chem. Soc.* **122**, 1381-1390 (2000).
- (261) "From Simple *trans*- $[\text{a}_2\text{Pt}(2\text{-hydroxypyrimidine})_2]^{2+}$  ( $\text{a} = \text{NH}_3, \text{CH}_3\text{NH}_2$ ) Complexes to Structures of Higher Complexity. Molecular Recognition of 2-Aminopyrimidine by Hydrogen Bond Formation and Reactivity toward Additional Metal Ions", J. A. R. Navarro, E. Freisinger, B. Lippert, *Inorg. Chem.* **39**, 1059-1065 (2000).
- (262) "Isomeric Equilibria in Aqueous Solution Involving Aromatic Ring Stacking in the Sexternary Complexes Formed by the Quarternary *cis*- $(\text{NH}_3)_2\text{Pt}(2'\text{-deoxyguanosine-N7})(\text{dGMP-N7})$  Complex and the Binary  $\text{Cu}(2,2'\text{-bipyridine})^{2+}$  or  $\text{Cu}(1,10\text{-phenanthroline})^{2+}$  Complexes ( $\text{dGMP}^{2-} = 2'\text{-Deoxyguanosine } 5'\text{-monophosphate}$ ), M.S. Lüth, B. Song, B. Lippert, H. Sigel, *Inorg. Chem.* **39**, 1305-1310 (2000).
- (263) "Ready formation of water-stable  $\text{Pt}^{\text{II}}(\mu\text{-NH}_2)\text{-Pd}^{\text{II}}$  species through combination of *trans*- $[(\text{NH}_3)_2\text{Pt}^{\text{II}}\text{L}_2]$  ( $\text{L} = \text{N}, \text{N}'\text{-heterocycle}$ ) and  $[\text{enPd}(\text{H}_2\text{O})_2]^{2+}$ , A. Schneider, E. Freisinger, B. Beck, B. Lippert, *J. Chem. Soc., Dalton Trans.*, 837-838 (2000). **(cover picture)**
- (264) "Hydrogen bonding between adenine and 2,4-difluorotoluene is definitely not present, as shown by concentration-dependent NMR studies", K. S. Schmidt, R. K. O. Sigel, D. V. Filippov, G. A. van der Marel, B. Lippert, J. Reedijk, *New J. Chem.* **24**, 195-197 (2000).
- (265) "Heavy metal mutagenicity: insights from bioinorganic model chemistry", J. Müller, R. K. O. Sigel, B. Lippert, *J. Inorg. Biochem.* **79**, 261-265 (2000).
- (266) "Self-Assembly of Palladium(II) Complexes of 2-Hydroxypyrimidine to Novel Metallacalix[4]arenes. Receptor Properties through Multiple H-Bonding Interactions", J. A. R. Navarro, E. Freisinger, B. Lippert, *Inorg. Chem.* **39**, 2301-2305 (2000)
- (267) "Molecular Architecture with 2,2'-Bipyrazine and Metal Ions: Infinite Loop and Molecular Square", R.-D. Schnebeck, E. Freisinger, B. Lippert, *Eur. J. Inorg. Chem.*, 1193-1200 (2000).
- (268) "Effects of N7-methylation, N7-platination, and C8-hydroxylation of guanine on H-bond formation with cytosine: platinum coordination strengthens the Watson-Crick pair", R. K. O. Sigel, E. Freisinger, B. Lippert, *J. Biol. Inorg. Chem.* **5**, 287-299 (2000).
- (269) "*trans*- $\text{a}_2\text{Pt}(\text{II})\text{-}(\text{a}=\text{NH}_3, \text{CH}_3\text{NH}_2)$  modified purine base pairs and triples: Hydrogen bonding between self-complementary pairs and triples and heterometal ( $\text{Ag}^+$ ) coordination leading to a 1 D helix", I. B. Rother, E. Freisinger, A. Erxleben, B. Lippert, *Inorg. Chim. Acta* **300-302**, 339-352 (2000).
- (270) "The Effect of Metal Binding to the N7 Site of Purine Nucleotides on Their Structure, Energy, and Involvement in Base Pairing", J. Sponer, M. Sabat, L. Gorb, J. Leszczynski, B. Lippert, P. Hobza, *J. Chem. Phys. B* **104**, 7535-7544 (2000).
- (271) "Multiplicity of metal ion binding patterns to nucleobases", B. Lippert, *Coord. Chem. Rev.* **200-202**, 487-516 (2000).
- (272) "Hydrogen bonding patterns of N(7) platinated guanine: Watson-Crick and different self-pairing motifs in a tris(9-methylguanine) complex of  $\text{Pt}^{\text{II}}$ ", E. Freisinger, S. Meier, B. Lippert, *J. Chem. Soc., Dalton Trans.*, 3274-3280 (2000).
- (273) "Exocyclic oxygen atoms of platinated nucleobases as binding sites for alkali metal ions", E. Freisinger, A. Schneider, M. Drumm, A. Hegmans, S. Meier, B. Lippert, *J. Chem. Soc., Dalton Trans.*, 3281-3287 (2000).

- (274) "Parallel-stranded DNA with Hoogsteen base pairing stabilized by a *trans*-[Pt(NH<sub>3</sub>)<sub>2</sub>]<sup>2+</sup> cross-link: characterization and conversion into a homodimer and a triplex", J. Müller, M. Drumm, M. Boudvillain, M. Leng, E. Sletten, B. Lippert, *J. Biol. Inorg. Chem.* **5**, 603-611 (2000).
- (275) "Properties of the Ternary (Dien)Pt(PMEA-*N7*) Complex Containing Diethylenetriamine (Dien) and the Antiviral 9-[2-Phosphonomethoxy]ethyl]adenine (PMEA). Synthesis, Biological Screening, Acid-Base Behaviour, and Metal Ion-Binding in Aqueous Solution", G. Kampf, M. S. Lüth, J. Müller, A. Holý, B. Lippert, H. Sigel, *Z. Naturforsch.* **55b**, 1141-1152 (2000).
- (276) "Axial guanine binding to a diplatinum (III) core", G. Kampf, M. Willermann, E. Zangrando, L. Randaccio, B. Lippert, *Chem. Commun.*, 747-748 (2001).
- (277) "Formation of Ternary Complexes by Coordination of (Diethylenetriamine)Platinum(II) to N1 or N7 of the Adenine Moiety of the Antiviral Nucleotide Analogue 9-[2-Phosphonomethoxy]ethyl]adenine (PMEA). Comparison of the Acid Base and Metal Ion-Binding Properties of PMEA, (Dien)Pt(PMEA-*N1*), and (Dien)Pt(PMEA-*N7*)", G. Kampf, M. S. Lüth, L. E. Kapinos, J. Müller, A. Holý, B. Lippert, H. Sigel, *Chem. Eur. J.* **7**, 1899-1908 (2001).
- (278) "Metal-Modified Nucleobase Sextet: Joining Four Linear Metal Fragments (*trans*-a<sub>2</sub>Pt<sup>II</sup>) and Six Model Nucleobases to an Exceedingly Stable Entity", R. K. O. Sigel, S. M. Thompson, E. Freisinger, F. Glahé, B. Lippert, *Chem. Eur. J.* **7**, 1968-1980 (2001).
- (279) "Metal-Modified Nucleobase Pairs and Triplets as Cytosine Receptors", M. S. Lüth, E. Freisinger, B. Lippert, *Chem. Eur. J.* **7**, 2104-2113 (2001).
- (280) "Thymine-metal ion interactions: Relevance for thymine quartet structures", E. Freisinger, A. Schimanski, B. Lippert, *J. Biol. Inorg. Chem.* **6**, 378-389 (2001).
- (281) "Protonation of platinated adenine nucleobases. Gasphase vs. condensed phase picture", J. E. Sponer, J. Leszczynski, F. Glahé, B. Lippert, J. Sponer, *Inorg. Chem.* **40**, 3269-3278 (2001).
- (282) "Versatility in the Mode of Coordination [(C)<sup>-</sup>, (N,S), (C,N)<sup>-</sup> or (C,N,S)<sup>-</sup>] of the Schiff Base C<sub>6</sub>H<sub>5</sub>-CH=N-CH<sub>2</sub>-CH<sub>2</sub>-SEt to Palladium(II). X-Ray Crystal Structures of *cis*-[Pd{C<sub>6</sub>H<sub>5</sub>-CH=N-CH<sub>2</sub>-CH<sub>2</sub>-SEt}Cl<sub>2</sub>] and [Pd{C<sub>6</sub>H<sub>4</sub>-CH=N-CH<sub>2</sub>-CH<sub>2</sub>-SEt}Cl]", X. Riera, A. Caubet, C. Lopez, V. Moreno, E. Freisinger, M. Willermann, B. Lippert, *J. Organomet. Chem.* **629**, 97-108 (2001).
- (283) "Pt<sup>II</sup> Binding to N<sup>1</sup> of Cytosine: Strengthening the Watson-Crick Pair with Guanine and yet Confining Its pH Existence Range", W. Brüning, R. K. O. Sigel, E. Freisinger, B. Lippert, *Angew. Chem.*, **113**, 3497-3500 (2001); *Angew. Chem. Int. Ed.* **40**, 3397-3399 (2001).
- (284) "Simple 1:1 and 1:2 complexes of metal ions with heterocycles as building blocks for discrete molecular as well as polymeric assemblies", J. A. R. Navarro, B. Lippert, *Coord. Chem. Rev.* **222**, 219-250 (2001).
- (285) "Extreme (10<sup>9</sup>) acidification of adenine-NH<sub>2</sub> in an open platinated nucleobase quartet. A pH switch with potential as a biological acid/base catalyst", M. S. Lüth, M. Willermann, B. Lippert, *Chem. Commun.*, 2058-2059 (2001).
- (286) "Comparison of the acid-base properties of 5- and 6-uracilmethylphosphonate (5Umpa<sup>2-</sup> and 6Umpa<sup>2-</sup>) and some related compounds. Evidence for intramolecular hydrogen-bond formation in aqueous solution between (N1)H and the phosphonate group of 6Umpa<sup>2-</sup>", C. F. Moreno-Luque, E. Freisinger, B. Costisella, R. Griesser, J. Ochocki, B. Lipper, H. Sigel, *J. Chem. Soc., Perkin Trans. 2*, 2005-2011 (2001).
- (287) "How Nucleobases Rotate When Bonded to a Metal Ion: Detailed View from an Ab Initio Quantum Chemical Study of a Cytosine Complex of *trans*-a<sub>2</sub>Pt<sup>II</sup>", J. E. Sponer, F. Glahé, J. Leszczynski, B. Lippert, J. Sponer, *J. Phys. Chem.* **105**, 12171-12179 (2001).

- (288) "Pd(II)- and Pt(II)-cimetidine complexes. Crystal structure of *trans*-[Pt(N,S-cimetidine)<sub>2</sub>]Cl<sub>2</sub>·12H<sub>2</sub>O", G. B. Onoa, V. Moreno, E. Freisinger, B. Lippert, *J. Inorg. Biochem.* **89**, 237-247 (2002).
- (289) "Diplatinum(III) complexes with bridging 1-methylcytosinate ligands and variable axial ligands, including guanine nucleobases", G. Kampf, M. Willermann, E. Freisinger, B. Lippert, *Inorg. Chim. Acta* **330**, 179-188 (2002).
- (290) "Molecular Architecture with Nucleobases, Metal Ions and Water Molecules: Mixed Adenine, Hypoxanthine Quartet Containing *trans*-(NH<sub>3</sub>)<sub>2</sub>Pt<sup>II</sup> and Ag<sup>+</sup> and Harboring a Water Hexamer in Its Chair Conformation", I. B. Rother, M. Willermann, B. Lippert, *Supramol. Chemistry* **14**, 189-197 (2002).
- (291) "Detection and Measurement of Noncoincidence between the Principal Axes of the g-Matrix and Zero-Field Splitting Tensor Using Multifrequency Powder EPR Spectroscopy: Application to *cis*-[(NH<sub>3</sub>)<sub>2</sub>Pt(1-MeU)<sub>2</sub>Cu(H<sub>2</sub>O)<sub>2</sub>](SO<sub>4</sub>)·4.5H<sub>2</sub>O (1-MeU=Monoanion of 1-Methyluracil)", D. Collison, D. M. L. Goodgame, M. A. Hitchman, B. Lippert, F. E. Mabbs, E. J. L. McInnes, *Inorg. Chem.* **41**, 2826-2833 (2002).
- (292) "Loss of Hoogsteen Pairing Ability upon N1 Adenine Platinum Binding", K. S. Schmidt, J. Reedijk, K. Weisz, E. M. Basilio Janke, J. E. Sporer, J. Sporer, B. Lippert, *Inorg. Chem.* **41**, 2855-2863 (2002).
- (293) "Comparison of the acid-base properties of purine derivatives in aqueous solution. Determination of intrinsic proton affinities of various basic sites", G. Kampf, L. E. Kapinos, R. Griesser, B. Lippert, H. Sigel, *J. Chem. Soc., Perkin Trans.2*, 1320-1327 (2002).
- (294) "N1 and N3 Linkage Isomers of Neutral and Deprotonated Cytosine with *trans*-[(CH<sub>3</sub>NH<sub>2</sub>)<sub>2</sub>Pt<sup>II</sup>]", W. Brüning, E. Freisinger, M. Sabat, R. K. O. Sigel, B. Lippert, *Chem. Eur. J.* **8**, 4681-4692 (2002).
- (295) "Association Patterns of Platinated Purine Nucleobases in Metal-Modified Pairs and Triples", M. Roitzsch, I. B. Rother, M. Willermann, A. Erxleben, B. Costisella, B. Lippert, *Inorg. Chem.* **41**, 5946-5953 (2002). (cover picture)
- (296) "Pd(II) and Pt(II) (*R,S*)-3-aminopyrrolidine complexes. Reactions with 9-ethylguanine and study of their antiproliferative activity", X. Riera, V. Moreno, E. Freisinger, B. Lippert, *Inorg. Chim. Acta* **339**, 253-264 (2002).
- (297) "Hydrogen bonding patterns of 7,9-dimethylguanine and its transplatinum(II) complexes", R. K. O. Sigel, E. Freisinger, M. Abbate, B. Lippert, *Inorg. Chim. Acta* **339**, 355-365 (2002).
- (298) "Metal-stabilized rare tautomers of nucleobases. 8. Promotion of rare cytosine tautomer upon complex formation with (dien)M<sup>2+</sup> (M = Pt, Pd), W. Brüning, I. Ascaso, E. Freisinger, M. Sabat, B. Lippert, *Inorg. Chim. Acta* **339**, 400-410 (2002).
- (299) "Model of the most abundant DNA interstrand cross-link of Transplatin: X-ray structures of two modifications and H bonding behavior in the solid state and in solution of *trans*-[Pt(NH<sub>3</sub>)<sub>2</sub>(1-MeC-N3)(9-EtGH-N7)](ClO<sub>4</sub>)<sub>2</sub>·nH<sub>2</sub>O (1-MeC = 1-methylcytosine; 9-EtGH = 9-ethylguanine)", A. Erxleben, S. Metzger, J. F. Britten, C. J. L. Lock, A. Albinati, B. Lippert, *Inorg. Chim. Acta* **339**, 461-469 (2002).
- (300) "Monofunctionally *trans*-Diammine Platinum(II)-Modified Peptide Nucleic Acid Oligomers: A New Generation of Potential Antisense Drugs", K. S. Schmidt, M. Boudvillain, A. Schwartz, G. A. van der Marel, J. H. van Boom, J. Reedijk, B. Lippert, *Chem. Eur. J.* **8**, 5566-5570 (2002).

- (301) "Intrinsic Acid-Base Properties of Purine Derivatives in Aqueous Solution and Comparison of the Acidifying Effects of Platinum(II) Coordinated to N1 or N7: Acidifying Effects Are Reciprocal and the Proton "Outruns" Divalent Metal Ions", R. Griesser, G. Kampf, Larisa E. Kapinos, S. Komeda, B. Lippert, J. Reedijk, H. Sigel, *Inorg. Chem.* **42**, 32-41 (2003).
- (302) "Canonical and unconventional pairing schemes between bis(nucleobases) complexes of *trans*- $a_2Pt^{II}$ : Artificial nucleobases quartets and C-H...N bonds", E. Freisinger, I. B. Rother, M. S. Lüth, B. Lippert, *Proc. Natl. Acad. Sci. USA* **100**, 3748-3753 (2003).
- (303) "Supramolecular Chemistry with Metal Ions and Heterocycles, Including Nucleobases", E. Freisinger, M. Roitzsch, B. Beck, A. Schneider, M. S. Lüth, I. B. Rother, R. D. Schnebeck, M. Willermann, G. Kampf, J. A. R. Navarro, M. Morell Cerdà, P. J. Sanz Miguel, B. Lippert, in *Prog. Coord. and Bioinorg. Chem.* (M. Melnik, A. Sirota, eds.), Slovak Techn. Univ. Press, Bratislava, 189 - 194 (2003).
- (304) "Inter- and intramolecular condensation patterns of (en)Pd<sup>II</sup> with *trans*-[ $a_2PtL_2$ ]<sup>2+</sup> (a = am(m)ine, L = 2-aminopyridine): PtPd<sub>3</sub> and Pt<sub>2</sub>Pd<sub>4</sub> species with multiple amide bridges. Unexpected trapping of a pair of nitrate ions by a Pt<sub>2</sub>Pd<sub>4</sub> double cone", B. Beck, A. Schneider, E. Freisinger, D. Holthenrich, A. Erxleben, A. Albinati, E. Zangrando, L. Randaccio, B. Lipper, *Dalton Trans.*, 2533-2539 (2003).
- (305) "Diplatinum(III) Complexes with four Bridging 1-Methylcytosinato Nucleobases Derived from a Mononuclear *trans*-(NH<sub>3</sub>)<sub>2</sub>Pt<sup>II</sup> Complex and Cu<sup>II</sup>", J. Müller, E. Freisinger, P. J. Sanz Miguel, B. Lippert, *Inorg. Chem.* **42**, 5117-5125 (2003).
- (306) "Chiral Pyrimidine Metallacalixarenes. Synthesis, Structure and Host-Guest Chemistry", E. Barea, J. A. R. Navarro, Juan M. Salas, M. Quirós, M. Willermann, B. Lippert, *Chem. Eur. J.* **9**, 4414-4421 (2003).
- (307) "Perturbation of the NH<sub>2</sub> pK<sub>a</sub> Value of Adenine in Platinum(II) Complexes: Distinct Stereochemical Internucleobase Effects", M. Garijo Añorbe, M. S. Lüth, M. Roitzsch, M. Morell Cerdà, P. Lax, G. Kampf, H. Sigel, B. Lippert, *Chem. Eur. J.* **10**, 1046-1057 (2004).
- (308) "Metal Coordination and Imine-Amine Hydrogen Bonding as the Source of Strongly Shifted Adenine pK<sub>a</sub> Values", M. Roitzsch, B. Lippert, *J. Am. Chem. Soc.* **126**, 2421-2424 (2004).
- (309) "Complex Formation of Isocytosine Tautomers with Pd<sup>II</sup> and Pt<sup>II</sup>", D. Gupta, M. Huelsekopf, M. Morell Cerdà, R. Ludwig, B. Lippert, *Inorg. Chem.* **43**, 3386-3393 (2004).
- (310) "Two Metal Ions Coordinated to a Purine Residue Tolerate Each Other Well!", B. Knobloch, R. K. O. Sigel, B. Lippert, H. Sigel, *Angew. Chem.* **116**, 3881-3883 (2004); *Angew. Chem. Int. Ed.* **43**, 3793-3795 (2004).
- (311) "Feasibility of a Two-Metal, Four-Purine Nucleobase Quartet Motif", M. Roitzsch, B. Lippert, *Inorg. Chem.* **43**, 5483-5485 (2004).
- (312) "Metal Mediated Deamination of Cytosine. Experiment and Mechanistic Insight from DFT Calculations", J. E. Sponer, P. J. Sanz Miguel, L. Rodriguez-Santiago, A. Erxleben, M. Krumm, M. Sodupe, J. Sponer, B. Lippert, *Angew. Chem.* **116**, 5507-5511 (2004); *Angew. Chem. Int. Ed.* **43**, 5396-5399 (2004).
- (313) "Coexistence of Major and minor tautomers of 1-methylcytosine (1-MeC) in a single metal complex, *trans*-Pt(1-MeC-N3)(1-MeC-N4)X<sub>2</sub> (X = Cl, I): metal migration N3 → N4 at acidic pH", P. J. Sanz Miguel, P. Lax, M. Willermann, B. Lippert, *Inorg. Chim. Acta* **357**, 4552-4561 (2004).

- (314) "Synthesis and X-ray crystal structure analysis of 1:1 and 1:2 complexes of cisplatin with the model nucleobase 9-methyladenine in its protonated form and a unique HNO<sub>3</sub> adduct of *cis*-[(NH<sub>3</sub>)<sub>2</sub>Pt(9-MeAH-N7)<sub>2</sub>]<sup>4+</sup>", E. Y. Bivián-Castro, M. Roitzsch, D. Gupta, B. Lippert, *Inorg. Chim. Acta* **358**, 2395-2402 (2005).
- (315) "Cationic tetrakis(nucleobase) complexes of Pt<sup>II</sup> as metalloligands and potential building blocks for molecular architectures", P. J. Sanz Miguel, B. Lippert, *Dalton Trans.*, 1679-1686 (2005).
- (316) "Synthesis and spectroscopy of diethyl(pyridinylmethyl)phosphates and their palladium(II) complexes: X-ray crystal structures of Pd(II) complexes", U. Kalinowska, L. Checińska, M. Malecka, A. Erxleben, B. Lippert, J. Ochocki, *Inorg. Chim. Acta* **358**, 2464-2472 (2005).
- (317) "Soft functional polynuclear coordination compounds containing pyrimidine ligands", J. A. Rodriguez Navarro, E. Barea, M. A. Galindo, J. M. Salas, M. Angustias Romero, M. Quiros, N. Masciocchi, S. Galli, A. Sironi, B. Lippert, *J. Solid State Chem.* **178**, 2436-2451 (2005).
- (318) "Alterations of Nucleobase pK<sub>a</sub> Values upon Metal Coordination: Origins and Consequences", B. Lippert, *Prog. Inorg. Chem.* **54**, 385-447 (2005).
- (319) "Models of Putative (AH)G(AH)G Nucleobase Tetrads (with AH = Protonated Adenine, G = Guanine)", P. Amo-Ochoa, P. J. Sanz Miguel, P. Lax, I. Alonso, M. Roitzsch, F. Zamora, B. Lippert, *Angew. Chem.* **117**, 5816-5820 (2005); *Angew. Chem. Int. Ed.* **44**, 5670-5674 (2005).
- (320) "Cyclic Trimer versus *Head-Tail* Dimer in Metal-Nucleobase Complexes: Importance of Relative Orientation (*Syn*, *Anti*) of the Metal Entities and Relevance as a Metallazaacrown Compound", W.-Z. Shen, D. Gupta, B. Lippert, *Inorg. Chem.* **44**, 8249-8258 (2005).
- (321) "Isocytosine as a Hydrogen Bonding Partner and as a Ligand in Metal Complexes", D. Gupta, M. Roitzsch, B. Lippert, *Chem. Eur. J.* **11**, 6643-6652 (2005).
- (322) "The role of intramolecular hydrogen bonding on nucleobase acidification following metal coordination: possible implications of an "indirect" role of metals in acid-base catalysis of nucleic acids", M. Roitzsch, M. Garijo Añorbe, P. J. Sanz Miguel, B. Müller, B. Lippert, *J. Biol. Inorg. Chem.* **10**, 800-812 (2005).
- (323) "Structural precursor of the hemideprotonated guanine pair", M. Roitzsch, B. Lippert, *Chem. Commun.*, 5991-5993 (2005).
- (324) "Inverting the charges of natural nucleobase quartets: A planar Pt purine quartet with pronounced sulphate affinity", M. Roitzsch, B. Lippert, *Angew. Chem.* **118**, 153-156 (2006), *Angew. Chem. Int. Ed.* **45**, 147-150 (2006).
- (325) "Synthesis and X-ray crystal structure determination of a useful Pd<sup>II</sup> starting compound enPd(NO<sub>3</sub>)<sub>2</sub>", M. Morell Cerdà, B. Costisella, B. Lippert, *Inorg. Chim. Acta* **359**, 1485-1488 (2006).
- (326) "The Bioinorganic Side of Nucleic Acid Chemistry: Interactions with Metal Ions", B. Lippert, J. Müller, in "Concepts and Models in Bioinorganic Chemistry", H.-B. Kraatz, N. Metzler-Nolte, Eds., Wiley-VCH, Weinheim (2006), 137-158.
- (327) "Pyrazine as a Building Block for Molecular Architectures with Pt<sup>II</sup>", M. Willermann, C. Mulcahy, R. K. O. Sigel, M. Morell Cerdà, E. Freisinger, P. J. Sanz Miguel, M. Roitzsch, B. Lippert, *Inorg. Chem.* **45**, 2093-2099 (2006).
- (328) "Imposing a Three-Way Junction on DNA or Recognizing One: A Metal Triple Helicate Meets Double Helix", J. Müller, B. Lippert, *Angew. Chem.* **118**, 2565-2567 (2006), *Angew. Chem. Int. Ed.* **45**, 2503-2505 (2006) (**invited highlight**).

- (329) (Dien) $M^{II}$  ( $M = Pd, Pt$ ) and  $(NH_3)_3Pt^{II}$  complexes of 1-methylcytosine: Linkage and rotational isomerism, metal-promoted deamination, and pathways to dinuclear species", P. J. Sanz Miguel, P. Lax, B. Lippert, *J. Inorg. Biochem.* **100**, 980-991 (2006).
- (330) "Multiple metal binding to 6-oxopurine nucleobases as a source of deprotonation. The role of metal ions at N7 and N3", M. Morell Cerdà, D. Amantia, B. Costisella, A. Houlton, B. Lippert, *J. Chem. Soc., Dalton Trans.*, 3894-3899 (2006).
- (331) "Pd<sub>2</sub>Ag triangle supported by two  $\mu$ -3-amidopyridine ligands", W.-Z. Shen, B. Costisella, B. Lippert, *J. Chem. Soc., Dalton Trans.*, 851-858 (2007).
- (332) "Varying Acidity of Aqua Ligands in Dependence on the Microenvironment in Mononucleobase (nb) Complexes of Type *cis*- and *trans*-[Pt(NH<sub>3</sub>)<sub>2</sub>(nb)(H<sub>2</sub>O)]<sup>n+</sup>", P. M. Lax, M. Garijo Añorbe, B. Müller, E. Y. Bivián-Castro, B. Lippert, *Inorg. Chem.* **46**, 4036-4043 (2007).
- (333) "Spontaneous Reduction of Mixed 2,2'-Bipyridine/Methylamine/Chloro Complexes of Pt<sup>IV</sup> in Water in the Presence of Light Is Accompanied by Complex Isomerization, Loss of Methylamine, and Formation of a Strong Oxidant, Presumably, HOCl", Y. Nakabayashi, A. Erxleben, U. Létinois, G. Pratviel, B. Meunier, L. Holland, B. Lippert, *Chem. Eur. J.* **13**, 3980-3988 (2007).
- (334) "Interguanine hydrogen-bonding patterns in adducts with water an Zn-purine complexe (purine is 9-methyladenine and 9-methylguanine). Unexpected preference of Zn(II) for adenine-N7 over guanine-N7", P. Amo-Ocha, P. J. Sanz Miguel, O. Castillo, M. Sabat, B. Lippert, F. Zamora, *J. Biol. Inorg. Chem.* **12**, 543-555 (2007).
- (335) "Mixed-Metal (Platinum, Palladium), Mixed-Pyrimidine (Uracil, Cytosine) Self-Assembly Metallcalix[n]arenes: Dynamic Combinatorial Chemistry with Nucleobases and Metal Species", E. Gil Bardaji, E. Freisinger, B. Costisella, C. A. Schalley, W. Brüning, M. Sabat, *Chem. Eur. J.* **13**, 6019-6039 (2007).
- (336) "1-Methylisocytosine as a ligand for (dien) $M^{II}$  ( $M=Pt, Pd$ ) and Pt-promoted deamination to 1-methyluracil" D. Gupta, M. Roitzsch, B. Lippert, *Inorg. Chim. Acta* **360**, 2379-2386 (2007).
- (337) "Migration of a *cis*-(NH<sub>3</sub>)<sub>2</sub>Pt<sup>II</sup> Moiety along Two Adenine Nucleobases, from N1 to N6, is Markedly Facilitated by Additional Pt<sup>II</sup> Entities Coordinated to N7", M. Garijo Añorbe, T. Welzel, B. Lippert, *Inorg. Chem.* **46**, 8222-8227 (2007).
- (338) "Tetrakis- and Tris(1-Methyluracil) Complexes of Pt<sup>II</sup>: Formation and Properties of a Carbon-Bonded Nucleobase Species as well as of Heteronuclear Derivatives", L. Holland, W.-Z. Shen, W. Micklitz, B. Lippert, *Inorg. Chem.* **46**, 11356-11365 (2007).
- (339) "Platinum Pyrimidine Blues: Still a Challenge to Bioinorganic Chemists and a Treasure for Coordination Chemists", B. Lippert, *Chimia* **61**, 732-735 (2008).
- (340) "Cyclic, trinuclear Pd<sup>II</sup> complex of cytidine with pronounced double-cone structure", W.-Z. Shen, B. Lippert, *J. Inorg. Biochem.* **102**, 1134-1140 (2008).
- (341) "On the interrelationship of  $\mu$ -OH bridged dimers, trimers, and tetramers of (en)Pt<sup>II</sup> and their Ag<sup>+</sup> adducts", W.-Z. Shen, R.-D. Schnebeck, E. Freisinger, B. Lippert, *Dalton Trans.*, 4044-4049 (2008).
- (342) "Reactivity of Ammonia Ligands of the Antitumor Agent Cisplatin: A Unique Dodecanuclear Pt<sub>4</sub>,Pd<sub>4</sub>,Ag<sub>4</sub> Platform for Four Cytosine Model Nucleobases", G. Kampf, P. J. Sanz Miguel, M. Morell Cerdà, M. Willermann, A. Schneider, B. Lippert, *Chem. Eur. J.* **14**, 6882-6891 (2008).
- (343) "Ligand-pK<sub>a</sub> Shifts through Metals: Potential Relevance to Ribozyme Chemistry", B. Lippert, *Chem. & Biodiversity* **5**, 1455-1474 (2008).



- (344) "Comparison of the Surprising Metal-Ion-Binding Properties of 5-and 6-Uracilmethylphosphonate (5Umpa<sup>2-</sup> and 6Umpa<sup>2-</sup>) in Aqueous Solution and Crystal Structures of the Dimethyl and Di(isopropyl) esters of H<sub>2</sub>(6Umpa)", E. Freisinger, R. Griesser, B. Lippert, C. F. Moreno-Luque, J. Nicolás-Gutiérrez, J. Ochocki, B. P. Operschall, H. Sigel, *Chem. Eur. J.* **14**, 10036-10046 (2008).
- (345) "Coordinative Bond Formation Between Metal Ions and Nucleic Acid Bases", B. Lippert in "Nucleic Acid-Metal Ion Interactions", N. V. Hud, Ed., RSC, Cambridge, 39-74 (2009).
- (346) "Rare Tautomers of 1-Methyluracil and 1-Methylthymine: Tuning Relative Stabilities through Coordination to Pt<sup>II</sup> Complexes", T. van der Wijst, C. Fonseca Guerra, M. Swart, F. M. Bickelhaupt, B. Lippert, *Chem. Eur. J.* **15**, 209-218 (2009).
- (347) "Expanding the pH Range of Metal-Nucleobase Complexes for Acid-Base Chemistry: Properties of Bis(guanine) Complexes of (bpy)Pt<sup>II</sup> with Either Two Major or Major and Minor Tautomers Bonded Simultaneously" P. Brandi-Blanco, P. J. Sanz Miguel, B. Müller, E. Gil Bardají, M. Willermann, B. Lippert, *Inorg. Chem.* **48**, 5208-5215 (2009).
- (348) "A Ditopic Ion-Pair Receptor Based on Stacked Nucleobase Quartets", T. van der Wijst, C. Fonseca Guerra, M. Swart, F. M. Bickelhaupt, B. Lippert, *Angew. Chem. Int. Ed.* **48**, 3285-3287 (2009).
- (349) "Promotion of rare nucleobase tautomers by metal binding", B. Lippert, D. Gupta, *Dalton Trans.*, 4619-4634 (2009). (**inside cover**)
- (350) "Pd<sup>II</sup>-Catalyzed Condensation of a Mononuclear Pt-Nucleobase Complex to Its Head-Tail Dimer: Characterization of a Key Intermediate and an End Product", L. Yin, P. J. Sanz Miguel, W.-Z. Shen, B. Lippert, *Chem. Eur. J.* **15**, 10723-10726 (2009).
- (351) "<sup>1</sup>H NMR spectroscopic identification of binding modes of 2,2'-bipyridine ligands in complexes of square-planar d<sup>8</sup> metal ions", W.-Z. Shen, G. Trötscher-Kaus, B. Lippert, *Dalton Trans.*, 8203-8214 (2009).
- (352) "Hybrids between classical and metallacalix[4]arenes based on uracil and *cis*-Pt<sup>II</sup>L<sub>2</sub> entities (L = P(Ph)<sub>3</sub> or L<sub>2</sub> = 2,2'-bipyridine)", N. Das, P. J. Sanz Miguel, A. Khutia, M. Lazar, B. Lippert, *Dalton Trans.*, 9120-9122 (2009).
- (353) "On the many roles of NH<sub>3</sub> ligands in mono- and multinuclear complexes of platinum", P. J. Sanz Miguel, M. Roitzsch, L. Yin, P. M. Lax, L. Holland, O. Krizanovic, M. Lutterbeck, M. Schürmann, E. C. Fusch, B. Lippert, *Dalton Trans.*, 10774-10786 (2009).
- (354) "Aqua Group Acidity in Complexes of the Type *trans*-[Pt(NH<sub>3</sub>)<sub>2</sub>(L)(H<sub>2</sub>O)]<sup>2+</sup> (with L = Substituted Pyridines). Linear, yet weak Dependence of pK<sub>a</sub> of the Aqua Ligand from L Basicity", A. Galstyan, W.-Z. Shen, B. Lippert, *Z. Naturforsch.* **64b**, 1653-1661 (2009).
- (355) "Pt(II) Complexes of Unsubstituted Guanine and 7-Methylguanine", D. Gupta, R. Nowak, B. Lippert, *Dalton Trans.* **39**, 73-84 (2010).
- (356) "Differential Stabilization of Adenine Quartets (A<sub>4</sub>) by Anions and Cations", T. van der Wijst, B. Lippert, M. Swart, C. Fonseca Guerra, F. M. Bickelhaupt, *J. Biol. Inorg. Chem.* **15**, 387-397 (2010).
- (357) "Synthesis, structural characterization and quadruplex DNA binding studies of a new gold(III) pyrazolyl-pyridine complex", K. Suntharalingam, D. Gupta, P. J. Sanz Miguel, B. Lippert, R. Vilar, *Chem. Eur. J.* **16**, 3613-3616 (2010).
- (358) "Molecular Architectures Derived from metal Ions and the Flexible 3,3'-Bipyridine Ligand. Unexpected Dimer with Hg(II).", A. Khutia, P. J. Sanz Miguel, B. Lippert, *Bioinorg. Chem. Appl.* **2010**, ID169054 Doi: 10.1155/2010/169054 (2010).

- (359) "Influence of Pt<sup>II</sup> and Pd<sup>II</sup> coordination on the equilibrium of 2,2'-dipyridylketone (dpk) with its hydrated *gem*-diol form (dpk·H<sub>2</sub>O)", A. Khutia, P. J. Sanz Miguel, B. Lippert, *Inorg. Chim. Acta* **363**, 3048-3054 (2010).
- (360) "Electrostatics plus O- $\pi$  interactions rather than "directed" hydrogen bonding keep SO<sub>4</sub><sup>2-</sup> in a triangular Pt<sub>3</sub>Pd<sub>3</sub>-tris(2,2'-bipyrazine) host", A. Galstyan, P. J. Sanz Miguel, B. Lippert, *Chem. Eur. J.* **16**, 5577-5580 (2010).
- (361) "[NO<sub>3</sub>-(en)Pt(2,2'-bpz)<sub>3</sub>]NO<sub>3</sub>(SO<sub>4</sub>)<sub>2</sub>: Snapshot of nitrate insertion into a cationic Pt<sub>3</sub> metallacycle or simply a packing effect?", A. Galstyan, P. J. Sanz Miguel, B. Lippert, *Dalton Trans.*, 6386-6388 (2010).
- (362) "Isomerism with metallacalix[4]arenes of the non-symmetrical pyrimidine nucleobase cytosine: How connectivity and rotamer state determine the topology of multinuclear derivatives.", A. Khutia, P. J. Sanz Miguel, B. Lippert, *Inorg. Chem.* **49**, 7635-7637 (2010).
- (363) "Photolysis and Thermolysis of Platinum(IV) 2,2'-Bipyridine Complexes lead to Identical Platinum(II)-DNA Adducts", C. Loup, A. Tesouro Vallina, Y. Coppel, U. Létinois, Y. Nakabayashi, B. Meunier, B. Lippert, G. Pratviel, *Chem. Eur. J.* **16**, 11420-11431 (2010).
- (364) "Discrete Molecular Squares {[en]M(CN)<sub>4</sub>}<sup>4+</sup> Derived from [en]M(CN)<sub>2</sub> (M = Pt<sup>II</sup>, Pd<sup>II</sup>)", A. Galstyan, P. J. Sanz Miguel, J. Wolf, E. Freisinger, B. Lippert, *Eur. J. Inorg. Chem.* 1649-1656 (2011).
- (365) " "Directed" Assembly of Metallacalix[n]arenes with Pyrimidine Nucleobase Ligands of Low Symmetry. Derivatives of *cis*-[a<sub>2</sub>M(cytosine-N3)<sub>2</sub>]<sup>2+</sup> with n = 4 and 6.", A. Khutia, P. J. Sanz Miguel, B. Lippert, *Chem. Eur. J.* **17**, 4195-4204 (2011). (**"Very Important Paper, VIP"**)
- (366) " "Directed" Assembly of Metallacalix[n]arenes with Pyrimidine Nucleobase Ligands of Low Symmetry. Interchanging Metals in Mixed-Metal Metallacalix[4]arenes, and Putting Additional Metals to Exocyclic Groups.", A. Khutia, P. J. Sanz Miguel, B. Lippert, *Chem. Eur. J.* **17**, 4205-4216 (2011). (**"Very Important Paper, VIP"**)
- (367) "A neutral Pt<sub>3</sub> stack unsupported by any bridging ligand", L. Holland, W.-Z. Shen, P. von Grebe, P. J. Sanz Miguel, F. Pichierri, A. Springer, C. A. Schalley, B. Lippert, *Dalton Trans.* **40**, 5159-5161 (2011)
- (368) "A "directed" approach toward a cationic molecular square containing four isonicotinamidate ligands and (4+2) (en)Pt<sup>II</sup> metal entities", A. Galstyan, P. J. Sanz Miguel, B. Lippert, *Inorg. Chim. Acta* **374**, 453-460 (2011).
- (369) "Coordination of two different metal ions as reason of N-chirality in  $\mu$ -amide complexes", P. Brandi-Blanco, P. J. Sanz Miguel, B. Lippert, *Dalton Trans.*, **40**, 10316-10318 (2011).
- (370) "Metallatriangles and metallasquares: The diversity behind structurally characterized examples and the crucial role of ligand symmetry", B. Lippert, P. J. Sanz Miguel, *Chem. Soc. Rev.*, **40**, 4475-4487 (2011).
- (371) "Pt<sup>II</sup> Coordination to N1 of 9-Methylguanine: Why it Facilitates Binding of Additional Metal Ions to the Purine Ring", B. Müller, W.-Z. Shen, P. J. Sanz Miguel, F. M. Albertí, T. van der Wijst, M. Noguera, L. Rodríguez-Santiago, M. Sodupe, B. Lippert, *Chem. Eur. J.*, **17**, 9970-9983 (2011).
- (372) "C<sub>3</sub>-Symmetric Pt<sub>3</sub>Pd<sub>3</sub> Purine Vases Based on a Metal Coordination Motif Involving the Pyrimidinic N1 and N3 Sites", S. Ibáñez, F. M. Albertí, P. J. Sanz Miguel, B. Lippert, *Chem. Eur. J.*, **17**, 9283-9287 (2011).

- (373) “Supramolecular Isomerism of 2,2'-Bipyrazine Complexes with *cis*-(NH<sub>3</sub>)<sub>2</sub>Pt<sup>II</sup>: Ligand Rotational State and Sequential Orientation Determine the 3D Shape of Metallacycles”, A. Galstyan, W.-Z. Shen, E. Freisinger, H. Alkam, R. Hiller, P. J. Sanz Miguel, M. Schürmann, B. Lippert, *Chem. Eur. J.*, **17**, 10771-10780 (2011).
- (374) “Exploring the Metal Coordination Properties of the Pyrimidine Part of Purine Nucleobases: Isomerization Reactions in Heteronuclear Pt<sup>II</sup>/Pd<sup>II</sup> of 9-Methyladenine”, S. Ibanez, F. M. Albertí, P. J. Sanz Miguel, B. Lippert, *Inorg. Chem.*, **50**, 10439-10447 (2011).
- (375) “7-Methylguanine: protonation, formation of linkage isomers with *trans*-(NH<sub>3</sub>)<sub>2</sub>Pt<sup>II</sup>, and base pairing properties”, A. Kozma, S. Ibañez, R. Silaghi-Dumitrescu, P. J. Sanz Miguel, D. Gupta, B. Lippert, *Dalton. Trans.*, **41**, 6094-6103 (2012). (“**Hot Article**”)
- (376) “Expected and Unconventional Ag<sup>+</sup> Binding Modes in Heteronuclear Pt,Ag Coordination Polymers Derived from *trans*-[Pt(methylamine)<sub>2</sub>(pyrazole)<sub>2</sub>]<sup>2+</sup>”, P. Brandi-Blanco, P. J. Sanz Miguel, B. Lippert, *Eur. J. Inorg. Chem.*, 1122-1129 (2012).
- (377) “Different Rotamer States of Cytosine Nucleobases in Heteronuclear PtPd-, PtPd<sub>2</sub>, and Pt<sub>2</sub>Pd<sub>2</sub>Ag Complexes Derived from [Pt(2,2'-bpy)(1-MeC-N3)<sub>2</sub>]<sup>2+</sup> (1-MeC = 1-Methylcytosine): First Examples of Species with Head-Head Oriented 1-MeC<sup>-</sup> Ligands”, L. Yin, P. J. Sanz Miguel, W. Hiller, B. Lippert, *Inorg. Chem.*, **51**, 6784-6793 (2012).
- (378) “Unsupported single-walled water cluster nanotube: A novel hydrogen bonding pattern for water organization”, F. M. Albertí, T. Mihály, B. Lippert, P. J. Sanz Miguel, *CrystEngComm*, **14**, 6178-6181 (2012).
- (379) “Revisiting the *head-head* dinuclear 1-methyluracil complex of Cisplatin: New insights into its solution behavior”, S. Siebel, C. Dammann, W. Hiller, T. Drewello, B. Lippert, *Inorg. Chim. Acta* **393**, 212-221 (2012).
- (380) “Flat vs. Folded Chelate Rings in *cis*-Pt<sup>II</sup>a<sub>2</sub> (a = NH<sub>3</sub>, a<sub>2</sub> = en, a<sub>2</sub> = 2,2'-bpy) Complexes of Twofold substituted Diazine Ligands”. P. v. Grebe, P. J. Sanz Miguel, B. Lippert, *Z. Anorg. Allg. Chem.*, **638**, 1691-1698 (2012).
- (381) “Multiple Metal Binding to the N9-Methyladenine Model Nucleobase Involving N1, N6, and N7: Discrete Di- and Trinuclear Species with Different Combinations of Monofunctional Pd<sup>II</sup> and Pt<sup>II</sup> Entities”, T. Mihály, M. Garijo Anorbe, F. M. Albertí, P. J. Sanz Miguel, B. Lippert, *Inorg. Chem.*, **51**, 10437-10446 (2012).
- (382) “A Unique Helicate Comprised of Four Cytosine Nucleobases and Four Metal Entities (Pt<sup>II</sup>, Pt<sup>II</sup>, Au<sup>III</sup>, Au<sup>I</sup>). Implications for the Interactions of Linearly Coordinated Metal Ions with Nucleotide Duplexes”, G. Fusch, E. Zangrando, L. Randaccio, B. Lippert, *Z. Anorg. Allg. Chem.*, **639**, 1674-1679 (2013).
- (383) “Stepwise Coordination of Pt<sup>II</sup>-180° and Pd<sup>II</sup>-90° Metal Fragments to the Purine Nucleobase 9-Methylhypoxanthine Affords a Closed Octadecanuclear Pt<sub>6</sub>Pd<sub>12</sub> Cluster”, F. M. Albertí, W. Zielinski, M. Morell Cerdà, P. J. Sanz Miguel, O. Troppner, I. Ivanovic-Burmazovic, B. Lippert, *Chem. Eur. J.*, **19**, 9800-9806 (2013).
- (384) “A Conformationally Flexible Dinuclear Pt<sup>II</sup> Complex with Differential Behavior of its Two States toward Quadruplex DNA”, P. v. Grebe, K. Suntharalingam, R. Vilar, P. J. Sanz Miguel, S. Herres-Pawlis, B. Lippert, *Chem. Eur. J.*, **19**, 11429-11438 (2013).
- (385) “Uses of Metal Compounds in Medicine”, B. Lippert in J. Reedijk (Ed.), Elsevier Reference Module in Chemistry, Molecular Sciences and Chemical Engineering, Waltham, MA: Elsevier. 11-Sept-2013, doi: 10.1016/B978-0-12-409547-2.05375-0.

- (386) “Discrete and polymeric heteronuclear constructs derived from triangular 2,2’-bipyrazine complexes of *cis*-a<sub>2</sub>Pt<sup>II</sup> (with a = NH<sub>3</sub> or a<sub>2</sub> = en)”, A. Galstyan, P. J. Sanz Miguel, K. Weise, B. Lippert, *Dalton Trans.*, 42, 16151-16161 (2013).
- (387) “Mixed Adenine/Guanine Quartets with Three *trans*-a<sub>2</sub>Pt<sup>II</sup> ( a = NH<sub>3</sub> or MeNH<sub>2</sub>) Cross-Links: Linkage and Rotational Isomerism, Base Pairing, and Loss of NH<sub>3</sub>”, F. M. Albertí, L. Rodríguez-Santiago, M. Sodupe, A. Mirats, H. Kaitsiotou, P. J. Sanz Miguel, B. Lippert, *Chem. Eur. J.*, 20, 3394-3407 (2014).
- (388) “Rationalizing the formation and versatility of multinuclear metal complexes of bis(1-methyl-uracil-5-yl)methane as hybrids between classical calix[*n*]arenes and metallacalixaromatics”, A. Khutia, W.-Z. Shen, N. Das, P. J. Sanz Miguel, B. Lippert, *Inorg. Chim. Acta*, 417, 274-286 (2014).
- (389) “Rationalizing the Structural Variability of the Exocyclic Amino Groups in Nucleobases and Their Metal Complexes: Cytosine and Adenine”, C. Fonseca Guerra, P. J. Sanz Miguel, A. Cebollada, F. M. Bickelhaupt, B. Lippert, *Chem. Eur. J.*, 20, 9494-9499 (2014).
- (390) “The Challenge of Deciphering Linkage Isomers in Mixtures of Oligomeric Complexes Derived from 9-Methyladenine and *trans*-(NH<sub>3</sub>)<sub>2</sub>Pt<sup>II</sup> Units”, S. Ibanez, B. Mihály, P. J. Sanz Miguel, D. Steinborn, I. Pretzer, W. Hiller, B. Lippert, *Chem. Eur. J.* 21, 5794-5806 (2015).
- (391) “Connectivity patterns and rotamer states of nucleobases determine acid-base properties of metalated purine quartets”, M. S. Lüth, E. Freisinger, G. Kampf, M. Garijo Anorbe, R. Griesser, B. P. Operschall, H. Sigel, B. Lippert, *J. Inorg. Biochem.* 148, 93-104 (2015).
- (392) “Analogues of Cis- and Transplatin with a Rich Solution Chemistry: *cis*-[PtCl<sub>2</sub>(NH<sub>3</sub>)(1-MeC-N3)] and *trans*-[PtI<sub>2</sub>(NH<sub>3</sub>)(1-MeC-N3)]”, S. Siebel, C. Dammann, P. J. Sanz Miguel, T. Drewello, G. Kampf, N. Teubner, P. J. Bednarski, E. Freisinger, B. Lippert, *Chem. Eur. J.* 21, 17827 -17843 (2015). (“**Hot Paper**”)
- (393) “Topology of metallacalix[4]arenes with uracil and cytosine ligands: favorable and unfavorable assemblies”, A. Vellé, A. Cebollada, B. Lippert, P. J. Sanz Miguel, *New J. Chem.* 40, 5914-5919 (2016).
- (394) “The Renaissance of Metal-Pyrimidine Nucleobase Coordination Chemistry”, B. Lippert, P. J. Sanz Miguel, *Acc. Chem. Res.* 49, 1537-1545 (2016).
- (395) “Multiple Condensation reactions Involving Pt<sup>II</sup>/Pd<sup>II</sup>-OH<sub>2</sub>, Pt-NH<sub>3</sub>, and Cytosine-NH<sub>2</sub> Groups: New Twists in Cisplatin-Nucleobase Chemistry”, L. Yin-Bandur, P. J. Sanz Miguel, L. Rodríguez-Santiago, M. Sodupe, M. Berghaus, B. Lippert, *Chem. Eur. J.* 22, 13653-13668 (2016).
- (396) “(N7)-Platination and its effect on (N1)H-acidification in nucleoside phosphate derivatives”, A. Sigel, B. P. Operschall, R. Griesser, B. Song, A. Okruszek, A. Odani, T. Kasuta, B. Lippert, H. Sigel, *Inorg. Chim. Acta* 452, 137-151 (2016).
- (397) “More of a misunderstanding than a real mismatch? Platinum and its affinity for aqua, hydroxide, and oxido ligands”, B. Lippert, P. J. Sanz Miguel, *Coord. Chem. Rev.* 327-328, 333-348 (2016).
- (398) “The exocyclic amino group of adenine in Pt<sup>II</sup> and Pd<sup>II</sup> complexes: a critical comparison of the X-ray crystallographic structural data and gas phase calculations”, R. Silaghi-Dumitrescu, B. Mihály, T. Mihály, A. A. A. Attia, P. J. Sanz-Miguel, B. Lippert, *J. Biol. Inorg. Chem.* 22, 567-579 (2017).
- (399) “Comparing Pt<sup>II</sup> and Pd<sup>II</sup>-nucleobase coordination chemistry: Why Pd<sup>II</sup> not always is a good substitute for Pt<sup>II</sup>“, B. Lippert, P. J. Sanz Miguel, *Inorg. Chim. Acta* 472, 207-213 (2017).

- (400) "Merging Metal-Nucleobase Chemistry with Supramolecular Chemistry", B. Lippert, P. J. Sanz Miguel, *Adv. Inorg. Chem.* (R. van Edik, R. Puchta, eds.), 71, 277-326 (2018).
- (401) "Mixed guanine,adenine base quartets: possible roles of protons and metal ions in their stabilization", D. A. Megger, P. M. Lax, J. Paauwe, C. Fonseca Guerra, B. Lippert, *J. Biol. Inorg. Chem.*, 23, 41-49 (2018).
- (402) "Regarding the diamagnetic components in Rosenberg's "platinum pyrimidine blues": Species in the cis-(NH<sub>3</sub>)<sub>2</sub>-1-methyluracil system", S. Pullen, W. G. Hiller, B. Lippert, *Inorg. Chim Acta* 494, 168-180 (2019).
- (403) "Metal-Mediated Assembly of Nucleobases into Rings and Cages", B. Lippert, P. J. Sanz Miguel, in: "Self-Assembled Rings and Cages", G. Clever, ed.), Wiley, in press.

### Abstracts (in journals)

- (1) "Monomeric Aquo and Hydroxo Complexes of Platinum(II)", J. F. Britten, P. Pilon, B. Lippert, C. J. L. Lock, Acta Cryst. A37, C-239 (1981).
- (2) "Studies of the Interaction of Platinum(II) with 9-Ethylguanine and the N1 deprotonated 9-Ethylguaninate Anion", R. Faggiani, B. Lippert, C. J. L. Lock, R. A. Speranzini, Acta Cryst. A37, C-239 (1981).
- (3) "Paramagnetic Pt(Pd) Complexes with Uracil and Thymine Nucleobases: Novel Mixed-Metal ( $X_2PtL_2PdL_2PtX_2$ )<sup>3+</sup> and Mixed-Amine ( $X_2PtL_2PtY_2$ )<sub>2</sub> Compounds", W. Micklitz, G. Müller, B. Huber, J. Riede, B. Lippert, Rec. Trav. Chim. Pays-Bas 106, 200 (1987).
- (4) "Solution Studies and Characterization of Oxidation Products Derived from the Dinuclear, Mixed-1-Methylthymine, NH<sub>3</sub>,Cl-Complex [(NH<sub>3</sub>)<sub>2</sub>Pt(1-MeT)<sub>2</sub>Pt(NH<sub>3</sub>)Cl]<sup>+</sup>", O. Renn, B. Lippert, A. Albinati, H. Schöllhorn, U. Thewalt, J. Inorg. Biochem. 36, 283 (1989).
- (5) "High Selectivity of (dien)Au(III) for Thymine-N3", B. Fischer, B. Lippert, J. Inorg. Biochem. 43, 432 (1991).
- (6) "Trans-a<sub>2</sub>Pt(II) Nucleobase Chemistry: Metal-Modified Base Pairs and Heteronuclear Derivatives", O. Krizanovic, R. Beyerle-Pfnür, M. Krumm, B. Lippert, M. Sabat, L. Randaccio, E. Zangrando, J. Inorg. Biochem. 43, 595 (1991).
- (7) "Metal Coordination and Reactivity in Model Nucleobase Systems", B. Lippert, A. Schreiber, S. Menzer, B. Fischer, E. C. Hillgeris, F. Schwarz, J. Inorg. Biochem. 51, 516 (1993).
- (8) "Proton- and Metal-Ion-Binding Properties of Cytosine-Nucleotide Derivatives", B. Song, M. Bastian, G. Feldmann, B. Lippert, H. Sigel, Chimia 48, 261 (1994).
- (9) "Effect of N7-Coordination of Platinum(II) on the Acid-Base Properties of Guanine Derivatives", B. Song, G. Feldmann, M. Bastian, B. Lippert, H. Sigel, J. Inorg. Biochem. 59, 141 (1995).
- (10) "Equilibrium and Structural Studies on the Ternary Palladium(II) Complexes of Peptides and Nucleobases", A. Kiss, E. Farkas, I. Sóvágó, B. Lippert, J. Inorg. Biochem. 59, 142 (1995).
- (11) "Metal Complexation of Adenine Nucleobases at the N3 Position", C. Meiser, B. Lippert, J. Inorg. Biochem. 59, 143 (1995).
- (12) "Synthesis of Novel Phosphonate Derivatives of Uracil and Thymine. Crystal and Molecular Structure of Diethyl 6-Uracilmethylphosphonate", J. Ochocki, A. Erxleben, B. Lippert, J. Inorg. Biochem. 59, 144 (1995).
- (13) "Formation Structure and Redox Properties of Gold(III) Guanine Complexes", A. Schimanski, A. Erxleben, E. C. Fusch, B. Lippert, J. Inorg. Biochem. 59, 145 (1995).
- (14) "Hydrogen Bonding of 7,9-Dimethylguanine in a Homo Base Pair and in a Platinated Analogue of the Watson-Crick Guanine, Cytosine Pair", S. Metzger, B. Lippert, J. Inorg. Biochem. 59, 146 (1995).
- (15) "Ternary Metal/Nucleobase (Oligonucleotide)/Amino Acid (Peptide) Complexes", H. Witkowski, I. Rombeck, T. Wienkötter, S. Höhmann, E. Erxleben, E. C. Fusch, B. Lippert, J. Inorg. Biochem. 59, 147 (1995).
- (16) "Acidification of the H(N-1) Site in 9-Ethylguanine (9-EtG) upon N-7 Coordination of Platinum(II)", B. Song, G. Feldmann, J. Zhao, M. Bastian, B. Lippert, H. Sigel, Chimia 49, 286 (1995).

- (17) "Metal Ion Complexes of 2'-Deoxyguanosine 5'-Monophosphate (dGMP<sup>2-</sup>) Involving also *cis*-Diammine-Platinum(II)", B. Song, J. Zhao, G. Oswald, B. Lippert, H. Sigel, *Chimia* 50, 326 (1996).
- (18) "Formation of Mixed Metal Complexes with *cis*-(NH<sub>3</sub>)<sub>2</sub>Pt(dGuo)(dGMP)", B. Song, G. Oswald, M. Bastian, B. Lippert, H. Sigel, *Chimia* 50, 373 (1996).
- (19) "Creating Regular Arrangements of Nucleobases Through Metal Ion Coordination and H Bond Formation", B. Lippert, *J. Inorg. Biochem.* 67, 340 (1997).
- (20) "Comparison of the Acidifying Properties of Cisplatin Coordinated to N1 or N7 of the NH Sites in 9-Methylhypoxanthine (9MHx)", R. Griesser, G. Kampf, L. E. Kapinos, B. Lippert, H. Sigel, *J. Inorg. Biochem.* 74, 148 (1999).
- (21) "Structural Characterization of Short Oligonucleotides Modified with *trans*-a<sub>2</sub>Pt(II) by NMR", M. Drumm, E. Freisinger, M. S. Lüth, E. Sletten, B. Lippert, *J. Inorg. Biochem.* 74, 119 (1999).
- (22) "Platinum Stabilized, Parallel Stranded DNA: Model for an Antigene Adduct?", J. Müller, M. Drumm, E. Sletten, B. Lippert, *J. Inorg. Biochem.* 74, 240 (1999).
- (23) "Towards Cationic Di- and Trinucleotide Analogs with a Platinum(II) Backbone", R. K. O. Sigel, E. Freisinger, B. Lippert, *J. Inorg. Biochem.* 74, 296 (1999).
- (24) "Interactions of Metal Cations (Ia, Ib, IIa, and IIb Groups, and PtII) with Nucleobases and Nucleotides. Binding Energies, Polarization Effects, and Formation of Metal Assisted Rare Tautomers. Quantum Chemical View vs. Experiments", J. Šponer, J. V. Burda, J. E. Šponer, M. Sabat, B. Lippert, P. Hobza, J. Leszczynski, *J. Mol. Struct. Dynamics* 16, 1283 (1999).
- (25) "*Cisplatin* Coordinated to N1 or N7 of 9-Methyladenine (9MeA). Its Acidifying Properties on the (N7)H<sup>+</sup> or (N1)H<sup>+</sup> Sites", L. E. Kapinos, G. Kampf, R. Griesser, B. Lippert, H. Sigel, *Chimia* 53, 348 (1999).
- (26) "Acid-Base Properties of the Ternary Complexes Formed with Platinum(II), Diethylenetriamine (Dien) and 9-Methylhypoxanthine (9MHx): Pt(Dien)(9MHx-N7)<sub>2</sub><sup>+</sup> and Pt(Dien)(H;9MHx-N1)<sub>2</sub><sup>2+</sup>", G. Kampf, R. Griesser, L. E. Kapinos, B. Lippert, H. Sigel, *Chimia* 53, 393 (1999).
- (27) "Acid-Base Properties of Ternary Complexes Formed by Coordination of (Diethylenetriamin)Platinum(II) to N1 or N7 of the Adenine Moiety of the Antiviral Nucleotide Analogue 9-[2-(Phosphonomethoxy)ethyl]adenine (PMEA)", *Chimia* 54, 422 (2000).
- (28) "Where Bioinorganic Chemistry meets Molecular Architecture: Modelling Metal-Nucleic Acids Interactions", B. Lippert, *J. Inorg. Biochem.* 86, 6 (2001).
- (29) "Platinum Coordination can stabilize parallel-stranded DNA", J. Müller, M. Drumm, M. Boudvillain, M. Leng, E. Sletten, B. Lippert, *J. Inorg. Biochem.* 86, 79 (2001).
- (30) "Relevance of Alkali Metal Ions for the Formation of Thymine Quartet Structures: An X-Ray Study", E. Freisinger, B. Lippert, *J. Inorg. Biochem.* 86, 222 (2001).
- (31) "Remarkable pK<sub>a</sub> shifts of adenine and cytosine nucleobases into the physiological pH range following metal binding", B. Lippert, M. Garijo Añorbe, M. Roitzsch, M. S. Lüth, J. Müller, P. Lax, H. Sigel, *J. Inorg. Biochem.* 96, 82 (2003).
- (32) "Molecular architectures with pyrimidine nucleobases and *cis*-a<sub>2</sub>MIII (M = Pt, Pt; a = NH<sub>3</sub> or a<sub>2</sub> = diamine)", B. Lippert, E. Gil Bardaji, E. Freisinger, *J. Biol. Inorg. Chem.* 12 (Suppl. 1), 99 (2007).

- (33) "Cyclic, cationic complexes of Pt<sup>II</sup> and Pd<sup>II</sup> with heterocyclic ligands, including nucleobases: synthesis, structure, host-guest chemistry with anions and non-covalent interactions with DNA" W.-Z. Shen, M. Roitzsch, B. Lippert, *J. Biol. Inorg. Chem.* 12(Supplem. 1), 116 (2007).
- (34) "Metal-Stabilized Tautomers of 1-Methyluracil and 1-Methylthymine", T. v. d. Wijst, C. Fonseca Guerra, M. Swart, F. M. Bickelhaupt, B. Lippert, *J. Biol. Inorg. Chem.* 12(Supplem. 1), 117 (2007).
- (35) "On the structural variability of exocyclic amino groups in free and metalated cytosine nucleobases", B. Lippert, C. Fonseca Guerra, P. J. Sanz Miguel, A. Cebollada, F. M. Bickelhaupt, *J. Biol. Inorg. Chem.* 19(Supplem. 2), S710 (2014) ("Alfred Werner Lecture").

#### **Abstracts of Lectures and Posters (in conference books)**

Not listed here (ca 150)

#### **Lectures and Posters presented by collaborators (in absence of BL) listed in conference books**

Not listed here (ca. 20), e.g. ICBIC-9, Minneapolis (1999); XXIX Congresso Nazionali, Napoli (1999); 4<sup>th</sup> FGIPS Meeting in Inorganic Chemistry, Corfu (1997); XVII Congress and General Assembly of International Union of Crystallography, Seattle (1996); 31<sup>th</sup> ICCS, Vancouver (1996); ICBIC-3, Noordwijkerhout (1987); Reunion Cientifica de Bioinorganica, Valencia (2003);



### Miscellaneous

- (1) "Untersuchungen zur Wirkungsweise cancerostatischer Platinverbindungen", B. Lippert und R. Pfab in "Bestandsaufnahme Krebsforschung in der Bundesrepublik Deutschland", E. A. Boedefeld (Ed.), H. Boldt Verlag, Boppard, Band II, S. 574 (1980).
- (2) Buchbesprechung "Frontiers in Bioinorganic Chemistry", *Angew. Chem.* **1987**, *99*, 162.
- (3) Kooperationsbericht im Rahmen "Bilateral Cooperation in Biotechnology" des Internationalen Büros der Kernforschungsanlage Jülich. „Coordination Chemistry of *cis*-(NH<sub>3</sub>)<sub>2</sub>PtCl<sub>2</sub>, a Platinum Antitumor Drug, N. Hadjiliadis, B. Lippert, Nr. 68/89 (1989).
- (4) Buchbesprechung "Metal-DNA Chemistry", *Angew. Chem.* **1990**, *102*, 1107.
- (5) Jahresüberblicke in "Nachrichten aus Chemie, Technik und Laboratorium": Beiträge 1993, 1992, 1991, 1990, 1989 (jeweils Februar-Heft)
- (6) Buchbeitrag "Metal Complexes of Amines, Amides and N-Heterocycles", Quinto Seminario di Chimica Inorganica e Metallorganica, Universität Milano, Supplemento, n. 88, **1992**, 109 - 131.
- (7) Buchbesprechung "Metal Complexes on Cancer Chemotherapy", *Angew. Chem.* **1994**, *106*, 1064.
- (8) "Bioanorganische Chemie - ein Widerspruch? Portrait einer jungen, interdisziplinären Wissenschaft", *Uni Report der Universität Dortmund* **1994**, *19*, 27 - 32.
- (9) "Modelling Platinum-DNA Interactions", *IV Coloquio La Química Inorganica en el Tratamiento del Cancer, Universidad Nacional Autonoma de Mexico*, **1994**, 59-66.
- (10) Highlight "Struktur eines Cisplatin-DNA-Komplexes", *Chemie in unserer Zeit*, **1996**, *30*, 49-50.
- (11) Einführung zu Themenbereich in "Bioinorganic Chemistry": "Modelling Ternary Metal Ion-Protein-Nucleic Acid Complex Formation" (A. X. Trautwein, ed.) Wiley-VCH: Weinheim (**1997**), 121-122.
- (12) Herausgeber von "Cisplatin: Chemistry and Biochemistry of a Leading Anticancer Drug", VHCA, Zürich, und Wiley-VCH, Weinheim (**1999**); Vorwort zum Buch, v-viii.
- (13) Vorwort für Sonderheft "Coordination Chemistry in Germany", *Coord. Chem. Rev.* **1999**, *182*, 1-2.
- (14) "Metalle und Nucleinsäuren: Ein Kapitel aus der Bioanorganischen Chemie", *Uni Report extra: Chemische Forschung in Dortmund*, **1999**, 46-51.
- (15) Buchbesprechung "Use of Inorganic Chemistry in Medicine", *Angew. Chem.* **2000**, *112*, 1179.
- (16) Vorwort "Protagonists in Chemistry", *Inorg. Chim. Acta* **2002**, *339*, xxiii - xxv.
- (17) "Bioanorganische Chemie mit Nucleinsäuren", *Uni Report der Universität Dortmund* **2004**, *37*, 44 - 46 (gemeinsam mit A. Erxleben und J. Müller).
- (18) Buchbesprechung "Bioorganometallics: Biomolecules, Labeling, Medicine", *Angew. Chem.* **2006**, *118*, 3652.
- (19) Buchbesprechung "Metal Ions in Life Sciences, Vol. 2", *Inorg. Chim. Acta* **2008**, *361*, 2989.
- (20) Buchbesprechung "Metal Ions in Life Sciences, Vol. 10", *Inorg. Chim. Acta* **2013**, *394*, 663.
- (21) Vorwort "Metal-Nucleic Acid Interactions: State of the Art" (mit Jens Müller), *Inorg. Chim. Acta* **2016**, *452*, 1-2.

- (22) Book review “Metallo-Drugs: Development and Action of Anticancer Agents”, Vol. 18 of “Metal Ions in Life Sciences”, *Inorg. Chim. Acta* **2018**, 479, 247-248.
- (23) Vorwort “Pt antitumor drugs and their chemistry – Special issue to commemorate the 40<sup>th</sup> Anniversary Cisplatin Celebration and Cancer Research Symposium” (mit J. D. Hoeschele und M. D. Hall, *Inorg. Chim. Acta* **2019**, <https://doi.org/10.1016/j.ica.2019.119139>; *Inorg. Chim. Acta* 498 (2019) 119139).

