
D.M.P. MINGOS

Publications

1968

1 D.M.P. Mingos, J. Chatt, G.J. Leigh, E.W. Randall and D. Shaw; "Nuclear Magnetic Resonance of Complexes Exhibiting Second Order Paramagnetism". *Chemical Communications*, 1968, 419.

2 D.M.P. Mingos, J. Chatt, G.J. Leigh and R.J. Paske; "Complexes of Osmium, Ruthenium, and Rhenium Halides with Tertiary Monophosphines and Arsines". *Journal of the Chemical Society (A)*, 1968, 2638.

1969

3 D.M.P. Mingos, J. Chatt and G.J. Leigh; "Configurations of Some Complexes of Rhenium, Ruthenium, Osmium, Rhodium, Iridium and Platinum Halides with Mono(tertiary phosphines) and Mono(tertiary arsines)". *Journal of the Chemical Society (A)*, 1969, 1674.

4 D.M.P. Mingos and J. Chatt; "p-Toluene sulphinate Ion as a Terminal and as a Bridging Ligand in Platinum(II) Complexes", *Journal of the Chemical Society (A)*, 1969, 1770.

5 D.M.P. Mingos, J. Chatt and G.J. Leigh; "Raman Spectral Studies of Tertiary Phosphine Complexes of Platinum and Iridium", *Journal of the Chemical Society (A)*, 1969, 2972.

6 D.M.P. Mingos, J. Chatt and G.J. Leigh; "Paramagnetic Hydride Complexes: a Correction and Another Stable Nitrogen Complex", *Chemistry in Industry*, 1969, 109.

1970

7 D.M.P. Mingos and G.J. Leigh; "Charge Transfer Spectra of Some Complexes of Ruthenium, Osmium, Iridium and Platinum Halides with Tertiary Phosphines and Arsines", *Journal of the Chemical Society (A)*, 1970, 587.

8 J. Chatt and D.M.P. Mingos, "Some Novel μ -Sulphido and Tetrasulphido Complexes of Platinum(II)", *Journal of the Chemical Society (A)*, 1970, 1243.

9 D.M.P. Mingos and J.A. Ibers; "Crystal and Molecular Structure of Dinitrosylbis(trisphenylphosphine)iridium(I) Perchlorate, *Inorganic Chemistry*, 1970, **9**, 1105.

1971

10 D.M.P. Mingos and J.A. Ibers; "Crystal and Molecular Structure of Dichloronitrosylbis(triphenylphosphine)iridium", *Inorganic Chemistry*, 1971, **10**, 1035.

11 D.M.P. Mingos, J.A. Ibers and W.T. Robinson; "Crystal and Molecular Structure of Iodo(methyl)nitrosylbis(triphenylphosphine)iridium", *Inorganic Chemistry*, 1971, **10**, 1043.

12 D.M.P. Mingos, J.A. Ibers; "Crystal and Molecular Structure of Hydrido(nitrosyl)tris(triphenylphosphine)iridium(I) Perchlorate", *Inorganic Chemistry*, 1971, **10**, 1479.

13 D.M.P. Mingos, "Geometries of Coordinated Ligands". *Nature*, 1971, **229**, 193.

14 D.M.P. Mingos, "Geometries of Dioxygen (O₂) Superoxo (O₂⁻) and Peroxo (O₂²⁻) Complexes". *Nature*, 1971, **230**, 154.

1972

15 D.M.P. Mingos, "The Influence of Metal Electron Configuration on the Activation Energy for Transition Metal Carbon Bond Dissociation". *Chemical Communications*, 1972, 165.

16 D.M.P. Mingos, "A General Theory for Cluster and Ring Compounds of the Main Group and Transition Elements". *Nature*, 1972, **236**, 99.

17 D.M.P. Mingos, R. Mason, G. Rucci and J.A. Connor; "ESCA Studies of Olefin and Other Complexes of d⁸ and d¹⁰ Metal Ions". *Journal of the Chemical Society. Dalton Transactions*, 1972, 1729.

1973

18 D.M.P. Mingos and R. Mason; "Geometries of and Bonding in Bi and Polynuclear Metal Complexes with Bridging Ligands". *Journal of Organometallic Chemistry*, 1973, **50**, 53.

19 D.M.P. Mingos, "A General Bonding Model for Linear and Bent Transition Metal Nitrosyl Complexes". *Inorganic Chemistry*, 1973, **12**, 1209.

20 D.M.P. Mingos, R. Mason and K.M. Thomas; "Stereochemistry of Octadecacarbonyl Hexaosmium(0) A Novel Hexanuclear Complex Based on a Bicapped Tetrahedron of Metal Atoms", *Journal of the American Chemical Society*, 1973, **95**, 3802.

1974

21 D.M.P. Mingos, "Molecular Orbital Calculations for an Octahedral Cobalt Cluster Complex Co₆(CO)₁₄⁴⁻", *Journal of the Chemical Society Dalton Transactions*, 1974, 124.

22 D.M.P. Mingos, R. Hoffmann, M.L. Chen, M. Elian and A.R. Rossi, "Pentacoordinate Nitrosyls", *Inorganic Chemistry*, 1974, **13**, 2666.

1975

23 D.M.P. Mingos and R. Mason; "A Review of Structural Organotransition Metal Chemistry", M.T.P. International Review of Science, Physical Chemistry, Series 2, **11**, 121 (1975).

1976

24 D.M.P. Mingos, "Molecular Orbital Calculations on Cluster Compounds of Gold", *Journal of the Chemical Society Dalton Transactions*, 1976, 1163.

25 D.M.P. Mingos, M. Eliañ, M.M.L. Chen and R. Hoffmann; "A Comparative Bonding Study of Conical Fragments", *Inorganic Chemistry*, 1976, **15**, 1148.

26 D.M.P. Mingos, Indira Ghatak, M.B. Hursthouse and P.R. Raithby; "The Oxidation of Coordinated Carbon Disulphide", *Transition Metal Chemistry*, 1976, **1**, 119.

1977

27 D.M.P. Mingos, "A Topological Huckel Bonding Model for Organometallic Complexes", Part 1, *Journal of the Chemical Society (Dalton Transactions)*, 1977, 20.

28 D.M.P. Mingos, Part II, *Journal of the Chemical Society Dalton Transactions*, 1977, 26.

29 D.M.P. Mingos, Part III, *Journal of the Chemical Society Dalton Transactions*, 1977, 31.

30 D.M.P. Mingos, Recent Developments in Theoretical Organometallic Chemistry", *Advances in Organometallic Chemistry*, 1977, **15**, 1.

31 D.M.P. Mingos and M.I. Forsyth, "Molecular Orbital Calculations on Transition Metal Cluster Compounds Containing Six Metal Atoms", *Journal of the Chemical Society Dalton Transactions*, 1977, 610.

32 D.M.P. Mingos, "Molecular Orbital Calculations on Metalloboranes", Part I, *Journal of the Chemical Society Dalton Transactions*, 1977, 602.

33 D.M.P. Mingos, M. Green, S.M. Heathcock and T.W. Turney, "Reactions of Coordinated Ligands, Part 15, The Cyclo-addition of Electronegatively Unsaturated Systems to Tricarbonyl (η -1N-methoxycarbonyl-1H-azepine) iron and Ruthenium and Tricarbonyl(η -cyclohept-2,4,6-triene-1-one)iron", *Journal of the Chemical Society Dalton Transactions*, 1977, 204.

34 D.M.P. Mingos, M.I. Forsyth and A.J. Welch, "X-ray Crystallographic and Theoretical Studies on "Slipped" Metallocarboranes", *Journal of the Chemical Society Chemical Communications*, 1977, 605.

35 D.M.P. Mingos, S.G. Davies and M.L.H. Green, "Rules for Predicting the Regioselectivity of Nucleophilic Attack on 18-electron Organometallic Cations Containing Polyene Ligand". *Nouveau Journal de Chimie*, 1977, **1**, 445.

1978

36 D.M.P. Mingos, "Sulphur Dioxide Complexes of the Platinum Metals", *Transition Metal Chemistry*, 1978, **3**, 1.

37 D.M.P. Mingos and M.I. Forsyth, "M.O. Analysis of the "Slip" Distortion in Electron Rich Sandwich Complexes Derived from the $1,2-C_2B_9H_{11}^{2-}$ Ligand", *Journal of Organometallic Chemistry*, 1978, **146**, C37.

38 D.M.P. Mingos, M.I. Forsyth and A.J. Welch, "Molecular and Crystal Structure of 3,3-Bis(triethylphosphine)1,2-dicarba-3-platinadodecarborane, and Molecular Orbital Analysis of the "Slip" Distortion in Metallocarboranes", *Journal of the Chemical Society Dalton Transactions*, 1978, 1363.

39 D.M.P. Mingos, "Structural and Theoretical Studies on Metallocarboranes - Plenary Lecture", 1st National Meeting of the Portuguese Chemical Society, Abstracts, 1978, p.3.

40 D.M.P. Mingos, S.G. Davies and M.L.H. Green, "Nucleophilic Addition to Organotransition Metal Cations Containing Unsaturated Hydrocarbon Ligands - A Survey and Interpretation", *Tetrahedron Report No. 57*, 1978, **34**, 3047.

41 D.M.P. Mingos, R. Hoffmann, B.E.R. Schilling, R. Bau and H.D. Kaesz, Electronic Structure of $M_4(CO)_{12}H_4$ and $M_4Cp_4H_4$ Complexes", *Journal of the American Chemical Society*, 1978, **101**, 6088.

42 D.M.P. Mingos and G.R. Hughes, "Preparation of Dimeric- μ -Peroxo and μ -Hydroxo Complexes of Platinum(II)", *Transition Metal Chemistry*, 1978, **3**, 381.

1979

43 D.M.P. Mingos, G.R. Hughes and P.C. Minshall, "The Crystal and Molecular Structure of *trans*-di(methylsulphito)bis(triphenylphosphine)platinum(II)", *Transition Metal Chemistry*, 1979, **4**, 147.

44 D.M.P. Mingos, I. Ghatak, M.B. Hursthouse and K.M. Abdul Malik, "The Crystal and Molecular Structure of Bis-(μ -sulphato-O,O',O''-bis(triphenylphosphine)-ruthenium(II)toluene(1:1), $[Ru(SO_2)(SO_4)(PPh_3)_2]_2C_6H_6$ ", *Transition Metal Chemistry*, 1979, **4**, 260.

45 D.M.P. Mingos, J.C. Green and E.A. Seddon, "U.V. Photoelectron Spectral Studies on the Metal Carbonyl Cluster Compounds $Os_3(CO)_{12}$, $Ru_3(CO)_{12}$ and $Os_6(CO)_{18}$ ", *J.C.S. Chemical Communications*, 1979, 94.

46 D.M.P. Mingos, P.C. Minshall, M.B. Hursthouse and S.D. Willoughby, "The *trans*-Influence in Metal Polyenyl Complexes - The Crystal and Molecular Structure of Hydrido(η -pentamethylcyclopentadienyl)bis(triphenylphosphine)rhodium(III) Hexafluorophosphate", *Journal of Organometallic Chemistry*, 1979, **181**, 169.

47 D.M.P. Mingos, The Electronic Factors Governing the Relative Stabilities of Geometric Isomers of Octahedral Complexes with π -Acceptor and π -Donor Ligands, *Journal of Organometallic Chemistry*, 1979, **179**, C29.

1980

48 D.M.P. Mingosa and C.T. Webber, "Redox Properties of $IrCl_4(PMe_2Ph)_2$ and the Synthesis of a Mixed Metal Mixed Valence Complex", *Nouveau Journal de Chimie*, 1980, **4**, 177.

49 D.M.P. Mingos and C.R. Nurse, "Molecular Orbital Calculations on η^3 - and η^5 -Hexadienyl Complexes of the Platinum Metals - An Analysis of their Conformational Preferences and Fluxional Characteristics", *Journal of Organometallic Chemistry*, 1980, **184**, 281.

50 D.M.P. Mingos, S. Bhaduri, B.F.G. Johnson, A. Khair and I. Ghatak, "Oxygen Transfer Reactions in Platinum Metal Complexes of Nitric Oxide and Sulphur Dioxide", *J.C.S. Dalton Transactions*, 1980, 1572.

- 51 D.M.P. Mingos and A.J. Welch, "Molecular Orbital Calculations on Carbometalloboranes and Related Polyhedra", *Journal of the Chemical Society Dalton Transactions*, 1980, 1674.
- 52 D.M.P. Mingos, "Theoretical and Structural Aspects of Metal Cluster Compounds", *Pure and Applied Chemistry*, 1980, **52**, 705.
- 53 D.M.P. Mingos, J.C. Green and E.A. Seddon, "A U.V. Photoelectron Study of Hydrido-Carbonyl Cluster Compounds and the Development of a Topological Bonding Model", *Journal of Organometallic Chemistry*, 1980, **185**, C20.
- 54 D.M.P. Mingos, M.B. Hursthouse, K.M. Abdul Malik and S.D. Willoughby, "The Crystal and Molecular Structure of $\text{Rh}(\text{NO}_2)(\eta\text{-C}_5\text{Me}_5)(\text{PPh}_3)$ and $\text{Rh}(\text{NO}_2)_2(\eta\text{-C}_5\text{Me}_5)$ ", *Journal of Organometallic Chemistry*, 1980, **192**, 235.
- 55 D.M.P. Mingos, "Recent Applications of Molecular Orbital Methods to Structural Problems in Organometallic Chemistry", *Transactions of the American Crystallographic Association*, 1980, **16**, 17.
- 56 D.M.P. Mingos, R.M. Brown, R.E. Bull, M.L.H. Green, P.D. Grebrik and J.J. Martin Polo, "Studies on Tetrahydrofuran Solutions of Manganese(II) Dihalides and Tertiary Phosphines and their Reactions with Dioxygen", *Journal of Organometallic Chemistry*, 1980, **201**, 437.
- 57 D.M.P. Mingos, C.E. Briant, G.R. Hughes and P.C. Minshall, "Synthesis and Structural Characterization of $\text{Pt}(\text{SH})_2(\text{PPh}_3)_2$ and related Alkyl and Aryl Thiolato Complexes" *Journal of Organometallic Chemistry*, 1980, **202**, C18.
- 58 D.M.P. Mingos, D.G. Evans, G.R. Hughes, J.M. Bassett and A.J. Welch, "Reactions of Zero-Valent Platinum Sulphur Dioxide Complexes with Dienes and the isolation of a Novel μ -phenyl, μ -phosphido, μ -sulphur dioxide Triangular Platinum Cluster", *J.C.S. Chemical Communications*, 1980, 1255.

1981

- 59 D.M.P. Mingos, C.E. Briant, B.R.C. Theobald, L.W. White, L.K. Bell and A.J. Welch "Synthesis and Structural Characterization of an Icosahedral Gold Cluster, $[\text{Au}_{13}(\text{PMe}_2\text{Ph})_{10}\text{Cl}_2][\text{PF}_6]_3$ - The Realization of a Theoretical Prediction", *J.C.S. Chemical Communications*, 1981, 201.
- 60 D.M.P. Mingos, B.T. Heaton, L. Longhetti, R. Garlashedi, U. Sartorelli, P.C. Minshall, C.E. Briant and B.R.C. Theobald "Structural Studies of $\text{Rh}_4(\text{CO})_{12}$ Derivatives in Solution and the Solid State", *Journal of Organometallic Chemistry*, 1981, **213**, 333.
- 61 D.M.P. Mingos, J.C. Green and E.A. Seddon, "U.V. Photoelectron Studies on Bonding in Some Metal Carbonyl and Metal Hydrido Carbonyl Clusters", *Inorganic Chemistry*, 1981, **20**, 2595.
- 62 D.M.P. Mingos, D.N. Cox and R. Hoffmann, "Extended Hückel Molecular Orbital Calculations on Dodecahedral Metalloboranes which Do Not Conform to the Polyhedral Skeletal Electron Pair Theory", *J.C.S. Dalton Transactions*, 1981, 1788.
- 63 D.M.P. Mingos, C.E. Briant, K.A. Rowland and C.T. Webber, "Redox Properties of $\text{IrCl}_4(\text{PMe}_2\text{Ph})_2$ and the Synthesis of Halide Bridged Mixed Metal Mixed Valence Complexes", *J.C.S. Dalton Transactions*, 1981, 1515.

64 D.M.P. Mingos, C.E. Briant and B.R.C. Theobald, "Synthesis and Characterisation of $\text{Rh}_4(\text{CO})_4(\text{SO}_2)_3(\text{P}(\text{OPh})_3)_4\text{C}_6\text{H}_6$ - A Butterfly Cluster with an Unusual Bridging Mode for SO_2 ", *J.C.S. Chemical Communications*, 1981, 963.

65 D.M.P. Mingos, D.G. Evans, C.E. Briant and B.R.C. Theobald, "Cluster Compounds of the Platinum Metals with Bridging Sulphur Dioxide Ligands", Abstracts EUACHEM Conference "The Challenge of Polynuclear Compounds", Venice, Sept. 1981, 32.

1982

66 D.M.P. Mingos, "Steric Effects in Metal Cluster Chemistry", *Inorganic Chemistry*, 1982, **21**, 466.

67 D.M.P. Mingos and L.K. Bell, "Investigation of the Reactions of Hydrido-Complexes of Rhodium and Iridium with SO_2 ", *J.C.S. Dalton Transactions*, 1982, 673.

68 D.M.P. Mingos, C.E. Briant, G.R. Hughes and P.C. Minshall, "Structural Characterization of $[\text{Rh}_2(\mu\text{-Cl})(\mu\text{-SO}_2)_2(\text{PPh}_3)_4\text{O}_4]$ which contain a Novel Synergic Bonding Mode for the SO_2 Ligand", *Journal of Organometallic Chemistry*, 1982, **224**, C21.

69 D.M.P. Mingos, J.C. Green, M.R. Kelly, P.D. Grebenik, C.E. Briant and N.A. McEvoy, "U.V. Photoelectron Spectral and Theoretical Studies on Tris(butadiene)molybdenum and tungsten", *Journal of Organometallic Chemistry*, 1982, **228**, 239.

70 D.M.P. Mingos, M.J. Calhorda and A.J. Welch, "Theoretical Comparison of the 'Slip' Distortion in Comparable Seven and Twelve Vertex Carboplatinaboranes", *Journal of Organometallic Chemistry*, 1982, **228**, 309.

71 D.M.P. Mingos and M.J. Calhorda "Extended Hückel Molecular Orbital Calculations on Fused Pentagonal Bipyramidal Metallocarboranes Containing Wedge Ligands such as BH, Sn or Ge", *Journal of Organometallic Chemistry*, 1982, 229, 229

72 D.M.P. Mingos, C.E. Briant and K.P. Hall, "Unusual Degradation Reaction of Icosahedral Cluster Compounds of Gold with Chelating Diphosphanes and the X-ray Structure of Di-Bis(diphenylphosphido)methanidogold(I), $\text{Au}_2\{(\text{Ph}_2\text{P})\text{CH}\}_2$ ", *Journal of Organometallic Chemistry*, 1982, **229**, C5.

73 D.M.P. Mingos and D.G. Evans, "Molecular Orbital Analysis of the Bonding in Low Nuclearity Gold and Platinum Tertiary Phosphine Complexes and the Development of Isolobal Analogies for the $\text{M}(\text{PR}_3)$ Fragment", *Journal of Organometallic Chemistry*, 1982, **232**, 171.

74 D.M.P. Mingos, K.P. Hall, B.R.C. Theobald, D.I. Gilmour and A.J. Welch, "Synthesis and Structural Characterization of $[\text{Au}_9\{\text{P}(\text{p-C}_6\text{H}_4\text{OMe})_3\}_8]\text{BF}_4$ - A Cluster with a Centred Crown of Gold Atoms", *J.C.S. Chemical Communications*, 1982, 528.

75 D.M.P. Mingos, C.E. Briant and D.G. Evans, "General Synthetic Route into SO_2 Cluster Compounds of Platinum and the Structural Characterization of $[\text{Pt}_5(\eta\text{-CO})_2(\eta\text{-SO}_2)_3(\text{CO})(\text{PPh}_3)]$ ", *J.C.S. Chemical Communications*, 1982, 1144.

76 D.M.P. Mingos and D.G. Evans, "Polyhedral Skeletal Electron Pair Theory - Its Extension to Non-Conical Fragments", *Journal of Organometallic Chemistry*, 1982, **240**, 321.

77 D.M.P. Mingos, J.M. Arber, D.S. Urch and S. Royse, "The Metal Alkene Bond in Di- η -chloro-tetra(ethene)rhodium(I) - Direct Evidence for the Dewar-Chat-Duncanson Model

Using X-ray Emission and X-ray Photoelectron Spectroscopy”, *J.C.S. Chemical Communications*, 1982, 1241.

78 D.M.P. Mingos, “Bonding of Unsaturated Organic Molecules to Transition Metals”, *Comprehensive Organometallic Chemistry* (Eds: G. Wilkinson, F.G.A. Stone & E.W. Abel), Pergamon Press, Oxford, **3**, 1.

79 D.M.P. Mingos, “Some Theoretical and Structural Aspects of Gold Clusters in Chemistry”, *Proc. Roy. Soc.*, 1982, **A308**, 75.

80 D.M.P. Mingos, “Comment”, Royal Society Meeting for Discussion - Metal Clusters in Chemistry, *Proc. Roy. Soc.*, 1982, **A308**, 14.

1983

81 D.M.P. Mingos and D.G. Evans, “Polyhedral Skeletal Electron Pair Theory - Its extension to non-conical ML_4 Fragments”, *Organometallics*, 1983, **2**, 435.

82 D.M.P. Mingos, L.K. Bell, J. Mason, D.G. Tew, P.C. Povey and L.F. Larkworthy, “The nitrogen ^{15}N .M.R. Criterion of Bond Angle in Nitrosyl Complexes”, *J.C.S. Chemical Communications*, 1983, 125.

83 D.M.P. Mingos, L.K. Bell, J. Mason and D.G. Tew, “ ^{15}N N.M.R. Studies of Nitrosyls (Linear and Bent), Nitro, and Hyponitrito-Ligands in 4, 5 and 6 Coordinate Complexes of the Platinum Metals”, *Inorganic Chemistry*, 1983, **22**, 3497.

84 D.M.P. Mingos, C.E. Briant, T.S.A. Hor, N.D. Howells and M.J. Calhorda, “Chemistry of Platinum Sulphido Complexes Part III - Crystal and Molecular Structure of Tetrasulphido-bis(diphenylphosphinoethane)platinum(II) and a Study of Its Bonding and Reactions”, *J.C.S. Dalton Transactions*, 1983, 1325.

85 D.M.P. Mingos, D.H. Evans, J. Mason and A. Richards, “Nitrogen-15 N.M.R. Comparisons of Alkyl and Perfluoroalkyl C-Nitroso Compounds and Bent and Linear Nitrosyl Ligands in Transition Metal Complexes”, *Journal of Organometallic Chemistry*, 1983, **249**, 293.

86 D.M.P. Mingos, “Polyhedral Skeletal Electron Pair Theory - A Generalised Principle for Condensed Polyhedra”, *J.C.S. Chemical Communications*, 1983, 706.

87 D.M.P. Mingos and D.G. Evans, “Bonding in Condensed Polyhedral Cluster Compounds of Platinum”, *Journal of Organometallic Chemistry*, 1983, **251**, C13.

88 D.M.P. Mingos, C.E. Briant and K.P. Hall “Structural Studies on Mixed Iron Gold Clusters with Bidentate Tertiary Phosphine Ligands”, *J.C.S. Chemical Communications*, 1983, 843.

89 D.M.P. Mingos, C.E. Briant, T.S.A. Hor and N.D. Howells, “Heterometallic Complexes of Platinum with Bridging Sulphido Ligands: Crystal Structure of $\{Pt_2S_2(PPH_3)_4\}_2Pd(BF_4)_2$ ”, *J.C.S. Chemical Communications*, 1983, 1118.

90 D.M.P. Mingos, C.E. Briant and K.P. Hall, “Synthesis and Structural Characterisation of $[Au_6(PPH_3)_6](NO_3)_2 \cdot 3CH_2Cl_2$ - An Edge Shared Bitetrahedral Gold Cluster”, *Journal of Organometallic Chemistry*, 1983, **254**, C18.

91 D.M.P. Mingos, C.E. Briant, T.S.A. Hor and N.D. Howells, "Synthesis and Characterisation of $[\text{Ag}_2\{\text{Pt}_2(\mu\text{-S})_2(\text{PPh}_3)_4\}](\text{BF}_4) \cdot 0.25\text{CH}_2\text{Cl}_2$ ", *Journal of Organometallic Chemistry*, 1983, **256**, C15.

1984

92 D.M.P. Mingos, "Gold Cluster - Metals in Miniature?", *Gold Bulletin*, 1984, **17**, 5.

93 D.M.P. Mingos, C.E. Briant, K.P. Hall and A.C. Wheeler, "Structural Characterisation of $[\text{Au}_{10}\text{Cl}_3(\text{PCy}_2\text{Ph})_6](\text{NO}_3)$ and the Development of a Structural Principle for High Nuclearity Gold Clusters", *Journal of the Chemical Society Chemical Communications*, 1984, 248.

94 D.M.P. Mingos, C.E. Briant and K.P. Hall, "Structural Characterisation of Two Crystalline Modifications of the $[\text{Au}_9\{\text{P}(\text{p-C}_6\text{H}_4\text{OMe})_3\}_3](\text{NO}_3)$. The First Example of Skeletal Isomerism in Cluster Chemistry", *Journal of the Chemical Society Chemical Communications*, 1984, 290.

95 D.M.P. Mingos, and K.P. Hall, "Homo and Heteronuclear Cluster Compounds of Gold", *Progress in Inorganic Chemistry*, Ed. S.J. Lippard, 1983, **32**, 239.

96 D.M.P. Mingos, C.E. Briant and R.G. Smith, "Synthesis and Structural Characterisation of $[\text{Ag}_6\{\text{Fe}(\text{CO})_4(\text{Ph}_2\text{P})_3\text{CH}\}]$ - A Distorted Tricapped Octahedral Silver Cluster, *J.C.S. Chemical Communications*, 1984, 586.

97 D.M.P. Mingos, C.E. Briant and R.W.M. Wardle, "Synthesis and Structural Characterisation of $[\text{Pt}_3\text{Au}(\text{CO})_3(\text{PCy}_3)_4](\text{PF}_6)$ - A Tetrahedral Platinum-Gold Cluster, *Journal of Organometallic Chemistry*, 1984, **267**, C49.

98 D.M.P. Mingos, C.E. Briant and D.I. Gilmour, "Synthesis and Structural Characterisation of $[\text{Pt}_2\text{Au}_2(\text{PPh}_3)_2(\text{CN-xyllyl})_4](\text{PF}_6)$ - A Platinum Gold Cluster with a Flattened Butterfly Geometry", *Journal of Organometallic Chemistry*, 1984, **267**, C52.

99 D.M.P. Mingos, K.P. Hall and D.I. Gilmour, "Molecular Orbital Analysis of the Bonding in High Nuclearity Gold Cluster Compounds", *Journal of Organometallic Chemistry*, 1984, **268**, 275.

100 D.M.P. Mingos, "New Developments in Gold Cluster Chemistry", Symposium Gold in Catalysis, Philadelphia 1983, Gold Institute, Washington D.C.

101 D.M.P. Mingos, J. Mason, D. Sherman and R.W.M. Wardle, "Nitrogen-15 N.M.R. Evidence for Rapid Intramolecular Interconversion of Linear and Bent Nitrosyl Ligands in $[\text{RuCl}(\text{NO}_2)(\text{PPh}_3)_2]\text{BF}_4$, D.M.P. Mingos, Observation of an ^{14}N , ^{15}N Equilibrium Isotope Effect, *Journal of the Chemical Society Chemical Communications*, 1984, 1223.

102 D.M.P. Mingos, "Polyhedral Skeletal Electron Pair Approach", *Accounts of Chemical Research*, 1984, **17**, 311.

103 D.M.P. Mingos, C.E. Briant, C.J. Gardner, T.S.A. Hor and N.D. Howells, "Chemistry of Platinum Sulphido-Complexes Part IV, Dimeric μ -alkyl Sulphido Complexes", *Journal of the Chemical Society Dalton Transactions*, 1984, 2645.

104 D.M.P. Mingos, "Organometallic Compounds of Silver". Dictionary of Organometallic Compounds. Eds, B.J. Aylett, M.F. Lappert and P.L. Pauson, Chapman & Hall, London, 1984, **1**, 1.

- 105 D.M.P. Mingos, "Organometallic Compounds of Gold". Dictionary of Organometallic Compounds, Eds, B.T. Aylett, M.F. Lappert & P.L.Pauson, Chapman & Hall, London, 1984, **1**, 188.
- 106 D.M.P. Mingos, "Organometallic Compounds of Copper". Dictionary of Organometallic Compounds, Eds, B.J. Aylett, M.F. Lappert & P.L.Pauson, Chapman & Hall, London 1984, **1**, 569.
- 107 D.M.P. Mingos, "Structure and Bonding in Cluster Compounds of Gold", *Polyhedron*, 1984, **3**, 1289.
- 108 D.M.P. Mingos and M. McPartlin, "Some Structural Systematics in Cluster Chemistry", *Polyhedron*, 1984, **3**, 1321.
- 109 C. Battisoni, G. Mattocono and D.M.P. Mingos, "Characterisation of Some Gold Cluster Compounds by XPS", *J. Electron Spectroscopy and Rel. Phenomena*, 1984, **33**, 107,
- 110 C. Battisoni, G. Mattocono and D.M.P. Mingos, XPS Studies of Some Heterometallic Complexes of Platinum with Bridging Sulphido Ligands", *Inorg.Chim.Acta.*, 1984, **86**, L39-40.

1985

- 111 D.M.P. Mingos, "Inter-relationships Between the Topological Electron Counting Theory and the Polyhedral Skeletal Electron Pair Theory", *Inorg. Chem.*, 1985, **24**, 114.
- 112 J. Mason, D.M.P. Mingos, D. Sherman, J. Schafer and E.O. Stejskal, "Nitrogen-15 N.M.R. Characterisation of Bent and Linear Nitrosyl Ligands in the Solid State by CP/MAS Spectroscopy of Complexes of Ruthenium", *J. Chem. Soc. Chem. Commun.*, 1985, 444.
- 113 C.E. Briant, D.I. Gilmour, M.A. Luke and D.M.P. Mingos, "Chemistry of Platinum Sulphido-Complexes Part V - Synthesis and Crystal and Molecular Structure of [bis(μ -sulphido)tetrakis(triphenylphosphine)diplatinum(II)(cyclooctadiene)rhodium(I) Hexafluorophosphate dichloromethane, [Pt₂RhS₂(PPh₃)₄(C₈H₁₂)]PF₆.CH₂Cl₂", *J. Chem. Soc., Dalton Trans.*, 1985, 845.
- 114 M.F. Hallam, N.D. Howells, D.M.P. Mingos and R.W.M. Wardle, "Interconversion of 42 and 44 Electron Platinum Triangulo Clusters Using Chelating Tertiary Phosphine Ligands and the Structural Characterisation of Bis(μ -sulphur Dioxide) [bis(diphenylphosphino)propane]bis(tricyclohexylphosphine)tri platinum, [Pt₃(SO₂)₃(PCy₃)₆(Ph₂P)₂C₃H₆].2C₆H₆", *J. Chem. Soc. Dalton Trans.*, 1985, 845.
- 115 R.L. Johnston and D.M.P. Mingos, "General Theoretical Analysis of Three-Connected Polyhedral Molecules and Their Capped Derivatives", *J. Organometal. Chem.*, 1985, **280**, 407.
- 116 R.L. Johnston and D.M.P. Mingos, "General Theoretical Analysis of Four-Connected Polyhedral Molecules", *J. Organometal. Chem.*, 1985, **280**, 419.
- 117 J. Bashkin, C.E. Briant, D.M.P. Mingos and R.W.M. Wardle, "Synthesis and Structural Characterisation of [CoAu(PPh₃)₂(CO)₃], *Transition Metal Chemistry*, 1985, **10**, 113.
- 118 S.I. Al-Resdyes, P.B. Hitchcock, D.M.P. Mingos and J.F. Nixon, "Use of the Monomeric π^2 -phospha-alkyne Complex [Pt(PPh₃)₂(Bu'CP)] in Hetero-Metallic Cluster

Synthesis - Crystal and Molecular Structure of the Novel Pentametallic $[\text{Pd}_2\text{Pt}_3(\text{PPh}_3)_5(\text{Bu}^i\text{CP})_3]$ ", *J. Chem. Soc. Chem. Commun.*, 1985, 365.

119 C.E. Briant, D.I. Gilmour, D.M.P. Mingos and R.W.M. Wardle, "The Synthesis and Structural Characterisation of Some Triangular Platinum Clusters Containing the Isocyanide Ligand", *Journal of the Chemical Society Dalton Transactions*, 1985, 1693.

120 N.J. Clayden, C.M. Dobson, K.P. Hall, D.M.P. Mingos and D.J. Smith, "Studies of Gold Cluster Compounds Using High Resolution ^{31}P Solid State N.M.R.", *Journal of the Chemical Society Dalton Transactions*, 1985, 1811.

121 D.M.P. Mingos and J.C. Hawes, "Complementary Spherical Electron Density Model for Inorganic Stereochemistries", *J. Chem. Soc. Chem. Commun.*, 1985, 1811.

122 J.C. Hawes and D.M.P. Mingos, "Complementary Spherical Electron Density Model", *Structure and Bonding*, 1985, **63**, 1.

123 D.M.P. Mingos "How Many Metal Atoms Make a Metal?", *Nature*, 1985, **314**, 224,

124 D.M.P. Mingos, "Growth of Cluster Compounds of Gold and Platinum as Models for Crystallites in Heterogeneous Catalytic Processes", Anglo-Japanese Advanced Research Meeting, Osaka, April 1985, pp.912.

125 D.M.P. Mingos, "Theoretical Studies on Mono and Poly Nuclear Hydrido Complexes of the Transition Metals". Plenary Lecture, Abstracts Italian Chemical Society Meeting on Hydrides of Transition Metals, Turin, June 1985, pp.47.

126 D.M.P. Mingos, "Theoretical Analysis and Electron Counting Rules for High Nuclearity Clusters", *J.C.S. Chemical Communications*, 1985, 1352.

127 D.G. Evans and D.M.P. Mingos, "Molecular Orbital Analysis of the Bonding in Penta and Hepta Nuclear Gold Tertiary Phosphine Clusters", *J. Organometallic Chemistry*, 1985, **295**, 389.

128 D.M.P. Mingos and R.W.M. Wardle, "Homonuclear Cluster Compounds of Platinum", *Transition Metal Chemistry*, 1985, **10**, 441.

129 D.M.P. Mingos, "Complementary Spherical Electron Density Model for Coordination and Organometallic Compounds", Abstracts "The Challenge of Transition Metal and Coordination Compounds", Strasbourg, 16-20th September, 1985.

130 M.P. Garcia, M. Green, F.G.A. Stone, R.G. Sommerville, A.L. Welch, C.E. Briant, D.N. Cox and D.M.P. Mingos, "Metalloborane Chemistry Part 14", *J. Chem. Soc. Dalton*, 1985, 2342.

1986

131 C.E. Briant, D.I. Gilmour and D.M.P. Mingos, Synthesis and Structural Characterisation of $[\text{Pt}_2\text{Au}_2(\text{PPh}_3)_4(\text{CNC}_6\text{H}_3\text{Me}_2)_4](\text{PF}_6)_2$ - A Platinum Gold Cluster with a Distorted Butterfly Geometry", *Journal of the Chemical Society Dalton Transactions*, 1986, 535.

- 132 D.M.P. Mingos and R.W.M. Wardle, "Synthesis and Structural Characterisation of the Some Tetrahedral Platinum-Gold Compounds Containing the Sulphur Dioxide Ligands", *Journal of the Chemical Society Dalton Transactions*, 1986, 73.
- 133 C.E. Briant, K.P. Hall, D.M.P. Mingos and A.C. Wheeler, "Synthesis and Structural Characterisation of Hexakis(triphenylphosphine)hexagold(2+) nitrate, $[\text{Au}_6(\text{PPh}_3)_6](\text{NO}_3)_2$ and Related Clusters with Edge Sharing Bitetrahedral Geometries", *Journal of the Chemical Society Dalton Transactions*, 1986, 687.
- 134 D.I. Gilmour and D.M.P. Mingos, "Molecular Orbital Calculations on Platinum-Gold Heterometallic Clusters", *Journal of Organometallic Chemistry*, 1986, **302**, 127.
- 135 G.R. Hughes, P.C. Minshall and D.M.P. Mingos, "The Preparation and Crystal and Molecular Structure of Selenito-O,O')Bis(triphenylphosphine)platinum(II)benzene(III), *Journal of Less Common Metals, J.D. Corbett Zeitschritte*, 1986, 116, 199.
- 136 D.M.P. Mingos, "Bonding in Molecular Clusters and their Relationships to bulk Metals", *Chem. Soc. Review*, 1986, **15**, 31.
- 137 C.E. Briant, D.G. Evans and D.M.P. Mingos, "A General Synthetic Route for Platinum Sulphur Dioxide Cluster Compounds and the X-ray Structural Characterisation of Carbonylbis(μ -carbonyl)bis(μ -sulphur dioxide)tetrakis(triphenylphosphine)-pentaplatinum, $[\text{Pt}_5(\text{CO})_3(\text{SO}_2)_3(\text{PPh}_3)_4]\cdot\text{CH}_2\text{Cl}_2$ ", *Journal of the Chemical Society Dalton Transactions*, 1986, 1535
- 138 R.L. Johnston and D.M.P. Mingos, "Theoretical Analysis of the Bonding in Octahedral Transition Metal Clusters Containing π -donor Ligands and their Nido and Arachno-Derivatives", *Inorganic Chemistry*, 1986, **25**, 1661.
- 139 C.E. Briant, D.I. Gilmour and D.M.P. Mingos, "The Synthesis and Structural Characterisation of $[\text{Pt}_3(\text{PPh}_3)_2(\text{CN-xylly})_6](\text{PF}_6)_2$ - A Linear Trinuclear Cluster of Platinum", *J. Organometallic Chem.*, 1986, **308**, 381.
- 140 D.M.P. Mingos and R.L. Johnston, "Molecular Orbital Calculations Which Relate to the Hyper-Iso-Controversy in Metalloboranes", *Inorganic Chemistry*, 1986, **25**, 3321.
- 141 R.L. Johnston and D.M.P. Mingos, "The Pairing Theorem in Tensor Surface Harmonic Theory: Definition of a General Class of N Atom Polar Deltahedra with N Skeletal Electron Pairs", *Polyhedron*, 1986, **5**, 2059.
- 142 M.F. Hallam and D.M.P. Mingos, "Facilitation of the Substitution Reactions of Sulphur Dioxide Cluster Compounds of Platinum by Amine N-Oxides", *J. Organometallic Chemistry* 1986, **315**, C35.

1987

- 143 D.I. Gilmour, M.A. Luke and D.M.P. Mingos, "Chemistry of Platinum-Sulphido-Complexes Part VI Reactions of $[\text{Pt}_2\text{S}_2(\text{PPh}_3)_4]$ with Rhodium Complexes", *Journal of the Chemical Society Dalton Transactions*, 1987, 335.
- 144 R.L. Johnston and D.M.P. Mingos, "Group Theoretical Paradigm for Describing the Skeletal Molecular Orbitals of Cluster Compounds Part I Deltahedral Clusters", *J. Chem. Soc. Dalton Transactions*, 1987, 647.

145 R.L. Johnston and D.M.P. Mingos, "Group Theoretical Paradigm for Describing the Skeletal Molecular Orbitals of Cluster Compounds Part II - Bispherical Clusters", *J. Chem. Soc. Dalton Transactions*, 1987, 1445.

146 D.M.P. Mingos, "Complementary Spherical Electron Density Model for Coordination Compounds", *Pure and Applied Chemistry*, 1987, **59**, 145.

147 D.M.P. Mingos, P. Oster and D.J. Sherman, "The Synthesis and Structural Characterisation of $[\text{Pt}_3\text{Au}_2\text{Cl}(\text{SO}_2)_2(\text{PCy}_3)_3(\text{P}(\text{p-C}_6\text{H}_4\text{F})_3)]\text{PF}_6$ The First Example of a Trigonal Bipyramidal Platinum-Gold Cluster", *J. Organometallic Chemistry*, 1987, **320**, 257

148 M.F. Hallam, M.A. Luke and D.M.P. Mingos, "Chemistry of Platinum-Sulphido-Complexes Part VII - Reactions with Group IB Metal Ions", *J. Organometallic Chemistry*, 1987, **325** 271.

149 O.J. Ezomo, D.M.P. Mingos and I.D. Williams, "Synthesis and Structural Characterisation of $[\text{TlPt}_3(\text{CO})_3(\text{PCy}_3)_3][\text{RhCl}_2(\text{C}_8\text{H}_{12})]$ - A Tetrahedral Pt_3Tl Cluster Compound", *J.C.S. Chemical Communications*, 1987, 924.

150 M.A. Luke, D.M.P. Mingos, D.J. Johnson and R.W.M. Wardle, "Synthesis and Structural Characterisation of the Bimetallic Gold-Iridium Compounds *cis* and *trans*- $[\text{IrH}(\text{AuPPh}_3)(\text{dppe})_2]\text{PF}_6$ and *mer*- $[\text{IrH}(\text{AuPPh}_3)(\text{CO})(\text{PPh}_3)_3]\text{PF}_6$ ", *Transition Metal Chemistry*, 1987, **12**, 37.

151 D.C. Brower, D.M.P. Mingos and L.L. Templeton, "Metal d_π -Ligand π -Conflicts in Octahedral Oxo, Carbyne and Carbonyl Complexes", *J. Amer. Chem. Soc.* 1987, **109**, 5203.

152 D.G. Evans, M.F. Hallam, D.M.P. Mingos and R.W.M. Wardle, "A General Synthetic Route for Platinum Cluster Compounds Containing Tertiary Phosphine and Carbonyl Ligands", *Journal of the Chemical Society Dalton Transactions*, 1987, 1889.

153 R.L. Johnston and D.M.P. Mingos, "Theoretical Models of Cluster Bonding", *Structure and Bonding*, 1987, **68**, 1.

154 D.M.P. Mingos and D.J. Sherman, "A Structural and N.M.R. Investigation of Chlorobis(triphenylphosphine)dinitrosylosmium(II) Tetrafluoroborate, $[\text{OsCl}(\text{NO})_2(\text{PPh}_3)_2]\text{BF}_4$ ", *Transition Metal Chemistry*, 1987, **12**, 400.

155 D.J. Sherman, D.M.P. Mingos and I.D. Williams, "Synthesis and Structural Characterisation of a Ruthenium dinitrosyl Complex with a *trans*-chelating phosphine: Chlorobis(nitrosyl)-(1-10-bis(diphenylphosphinomethyl)[α]benzophenanthrene Tetrafluoroborate, $[\text{RuCl}(\text{NO})_2\{\text{Ph}_2\text{PCH}_2\}_2\text{C}_{18}\text{H}_{10}]\text{BF}_4$ ", *Transition Metal Chemistry*, 1987, **12**, 405.

156 S.G. Davies, M.L.H. Green and D.M.P. Mingos, "Nucleophilic Addition to Organotransition Metal Cations Containing Unsaturated Hydrocarbon Ligands", *Reactions of Coordinated Ligands*, Ed. P.S. Braterman, Plenum Press, 1987, 897.

1988

157 R.V. Parish, L.S. Moore, A.J. Dens, D.M.P. Mingos and D.J. Sherman, "A ^{57}Fe and ^{197}Au Mössbauer Investigation of the Bonding in Iron-Gold Cluster Compounds", *Journal of the Chemical Society Dalton Transactions*, 1988, 781.

- 158 M.F. Hallam, D.M.P. Mingos, T. Adatia and M. McPartlin, "Synthesis and Structural Characterisation of Group IB Sandwich Cluster Compounds with $[\text{Pt}_3(\text{CO})_3(\text{PPh}_3)_3]$ and the Structural Characterisation of $[\{\text{Pt}_3(\text{CO})_3(\text{PPh}_3)_3\}_2\text{M}]\text{PF}_6$ (M = Cu or Au) by Single Crystal X-ray Techniques", *Journal of the Chemical Society Dalton Transactions*, 1988, 335.
- 159 L.F. Halet and D.M.P. Mingos, "Molecular Orbital Analysis of Dicarbido Transition Metal Cluster Compounds", *Organometallics*, 1988, **7**, 51.
- 160 L.F. Halet, D.G. Evans and D.M.P. Mingos, "Effect of Cavity Size on the Charge Distribution in Carbido-Metal Carbonyl Clusters and Its Possible Catalytic Implications", *J. Amer. Chem. Soc.*, 1988, **110**, 87.
- 161 S.G. Bott, O.J. Ezomo, M.F. Hallam and I.D. Williams, "Facilitation of the Substitution Reaction of Triangular Platinum Cluster Compounds and the Structural Characterisation of $[\text{Pt}_3(\text{SO}_2)_3(\text{PCy}_3)_3]$ and $[\text{Pt}_3\text{Br}(\text{SO}_2)_2(\text{PCy}_3)_3]\text{NEt}_4$ by Single Crystal X-ray Diffraction", *Journal of the Chemical Society Dalton Transactions*, 1988, 1461.
- 162 D.M.P. Mingos, I.D. Williams and M.J. Watson, "Synthesis and Structural Characterisation of some Triangular and Binuclear Clusters of Platinum from the Reaction of $[\text{Pt}_3(\text{SO}_2)_3(\text{PCy}_3)_3]$ and 2,6-xylylisocyanide", *Journal of the Chemical Society Dalton Transactions*, 1988, 1509
- 163 D.M.P. Mingos and Lin Zhenyang, "Theoretical Analysis of Clusters with Cylindrical Topologies", *J. Organometallic Chemistry*, 1988, **339**, 367.
- 164 D.M.P. Mingos and Lin Zhenyang, "Theoretical Analysis of High Nuclearity Clusters", *Journal of the Chemical Society Dalton Transactions*, 1988, 1657.
- 165 D.M.P. Mingos and Lin Zhenyang, "Molecular Orbital Analysis of Carbonyl Cluster Compounds with Close Packed Metallic Arrangements", *J. Organometallic Chemistry*, 1988, **341**, 523.
- 166 D.M.P. Mingos "Towards a Common Language for Molecular and Solid State Chemistry", Transformation of Organometallics into Common, and Exotic Materials, Ed. R.M. Laine, Martinus Nihoff publishers, 1988, 3.
- 167 D.R. Baghurst, A.M. Chippindale and D.M.P. Mingos, "Microwave Syntheses for Superconducting Ceramics", *Nature*, 1988, **332**, 311.
- 168 D.R. Baghurst and D.M.P. Mingos, "Applications of Microwave Heating Techniques for the Synthesis of Solid State Inorganic Compounds", *J.C.S. Chemical Communications*, 1988, 829.
- 169 Z. Demidowicz, R.L. Johnston, J.C. Machell, D.M.P. Mingos and I.D. Williams, "Synthesis and Characterization of a Novel High Nuclearity Gold-Tin Cluster Compound - $[\text{Au}_8(\text{PPh}_3)_7(\text{SnCl}_3)_2][\text{SnCl}_6]$ ", *Journal of the Chemical Society Dalton Transactions*, 1988, 1751.
- 170 D.M.P. Mingos and Lin Zhenyang, "Group Theoretical Paradigm for Defining NonBonding Molecular Orbitals," *New Journal of Chemistry*, 1988, **12**, 787.
- 171 S.G. Bott, O.J. Ezomo and D.M.P. Mingos, "Synthesis and Structural Characterization of a Novel Palladium Sulphur Dioxide Cluster Compound, $[\text{Pd}_5(\text{SO}_2)_4(\text{PMe}_3)_5]$ ", *J.C.S. Chemical Communications*, 1988, 1048.

172 D.M.P. Mingos and R.L. Johnston, "Allowed and Forbidden Nature of Diamond-Square-Diamond Degenerate Rearrangements in Polyhedral Boranes - A General Topological Analysis", *Polyhedron*, 1988, **7**, 2437.

1989

173 R.L. Johnston and D.M.P. Mingos, "The Classification of Tensor Surface Harmonic Functions for Clusters and Coordination Compounds", *Theoretica Chimica Acta*, 1989, **75**, 11.

174 R.L. Johnston, Lin Zhenyang and D.M.P. Mingos, "The Tensor Surface Harmonic Equivalent Orbital Model of Bonding in Polyhedral Cluster Molecules", *New Journal of Chemistry*, 1989, **13**, 33.

175 R.V. Parish, L.S. Moore, A.I.J. Dens, D.M.P. Mingos and D.J. Sherman, "Gold-197 Mössbauer Spectra and the Bonding of Some Gold-Gold and Gold-Platinum Clusters", *Journal of the Chemical Society Dalton Transactions*, 1989, 539.

176 D.R. Baghurst, D.M.P. Mingos and M.L. Watson, "Application of Microwave Dielectric Loss Heating Effects for the Rapid and Convenient Synthesis of Organometallic Compounds", *J. Organometallic Chemistry*, 1989, **368**, C43.

177 D.M.P. Mingos and Lin Zhenyang, "Non Bonding Orbitals in Coordination, Hydrocarbon and Cluster Compounds", *Structure and Bonding*, 1989, **71**, 2.

178 T. Slee, Lin Zhenyang and D.M.P. Mingos, "Polyhedral Skeletal Electron Pair Theory of Bare Clusters 1 - Small Silicon Clusters", *Inorganic Chemistry*, 1989, **28**, 178.

179 D.J. Wales and D.M.P. Mingos, "Splitting of Cluster Orbitals", *Inorganic Chemistry*, 1989, **28**, 2748.

180 D.J. Wales, D.M.P. Mingos and Lin Zhenyang, "Skeletal Rearrangements in Clusters 2", *Inorganic Chemistry*, 1989, **28**, 2754.

181 D.M.P. Mingos and Lin Zhenyang, "A Group Theoretical Paradigm for Describing the Skeletal Molecular Orbitals of Cluster Compounds, Part 3", *Z. Phys. D. - Atoms, Molecules and Clusters*, 1989, **12**, 53.

182 S.G. Bott, D.M.P. Mingos and M.J. Watson, "Synthesis and Structural Characterisation of $[\text{Au}_8\text{Cl}_2(\text{PPh}_3)_6\text{Rh}(\text{CNC}_8\text{H}_9)_2]\text{PF}_6$: A Novel Heterometallic Cluster of Gold with a Hemispherical Topology", *J.C.S. Chemical Communications*, 1989, 1192.

183 K. Chatakondur, M.L.H. Green, S.M. Reynolds and D.M.P. Mingos, "Application of Dielectric Loss Heating Effects for the Rapid and Convenient Synthesis of Intercalation Compounds", *J.C.S. Chemical Communications*, 1989, 1515.

184 D.M.P. Mingos and Lin Zhenyang, "Structural Consequences of the Jellium Model for Alkali Metal Clusters", *Chemical Physics*, 1989, **137**, 15.

185 J.C. Machell, D.M.P. Mingos and T.L. Stolberg, "Synthesis and Characterisation of $[\text{Sn}(1,2\text{-O}_2\text{C}_6\text{H}_3\text{NO}_2\text{-4})(\text{C}_4\text{H}_8\text{O})]_n$ - A Tin(II) Catechol Complex", *Polyhedron*, 1989, **8**, 2933.

- 186 D.M.P. Mingos and Lin Zhenyang, "Site Preference Effects in Heterometallic Clusters", *Comments in Inorganic Chemistry*, 1989, **9**, 95.
- 187 D.M.P. Mingos and D.J. Sherman "Transition Metal Nitrosyl Complexes", *Advances in Inorganic and Radiochemistry*, 1989, **34**, 72.
- 188 D.J. Wales and D.M.P. Mingos, "Skeletal Rearrangements in Clusters III - Application of Vibrational Symmetry Analysis", *Polyhedron*, 1989, **8**, 1933.
- 189 M. Arfelli, C. Battestoni, G. Matogno and D.M.P. Mingos, "X-ray Photoelectron Evidence for the Electrophilic Character of the AuPPh₃ Fragment in [Pt₃(CO)₃(PCy₃)₃AuPPh₃]⁺", *Journal of Electron Spectrosc.*, 1989, **49**, 273.

1990

- 190 D.M.P. Mingos and Lin Zhenyang, "Hybridization Schemes for Coordination and Organometallic Compounds", *Structure and Bonding*, 1990, **72**, 73.
- 191 D.J. Wales, T. Slee, Lin Zhenyang and D.M.P. Mingos, "Bonding Models for Ligated and Bare Clusters", *Accounts Chem. Res.*, 1990, **23**, 17.
- 192 D.R. Baghurst, S.R. Cooper, D.L. Greene, D.M.P. Mingos and S.M. Reynolds, "Application of Microwave Dielectric Loss Heating Effects for the Rapid and Convenient Synthesis of Coordination Compounds", *Polyhedron*, 1990, **6**, 893.
- 193 D.R. Baghurst and D.M.P. Mingos, "Design and Application of a Reflux Modification for the Synthesis of Organometallic Compounds using Microwave Dielectric Loss Heating Effects", *J. Organometal Chem.*, 1990, **384**, C57.
- 194 D.M.P. Mingos and D.J. Wales, "Nickel Carbonyl Clusters in Molecular Beams: A Reinterpretation of the Results which Gives Circumstantial Evidence for the Face Capping Cluster Growth Sequence", *J. Amer. Chem. Soc.*, 1990, **112**, 930.
- 195 D.M.P. Mingos and R.P.F. Kanters, "Molecular Orbital Analysis of Mono and Di-Carbido Gold Cluster Compounds", *J. Organometallic Chem.*, 1990, **384**, 405.
- 196 A.J. May and D.M.P. Mingos, "Structural and Bonding Aspects of Metal Cluster Chemistry" in *The Chemistry of Metal Cluster Complexes*, Eds. H.D. Kaesz, D.F. Shriver and R.D. Adams, Verlag Chemie, 1990, 11.
- 197 D.M.P. Mingos, Lin Zhenyang and T. Slee, "Bonding Models for Ligated and Bare Clusters", *Chemical Reviews*, 1990, **90**, 383.
- 198 D.M.P. Mingos, "Cluster Chemistry-Unusual Atomic Environments", *Nature*, 1990, **345**, 113.
- 199 D.M.P. Mingos T. Slee and Lin Zhenyang, "A Structural Jellium Model of Cluster Electronic Structure", *Chemical Physics*, 1990, **142**, 321.
- 200 D.M.P. Mingos and D.J. Wales, "An Introduction to Cluster Chemistry", Prentice-Hall, New Jersey, 1990. Published in hardback and paperback.
- 201 D.M.P. Mingos, "Inorganic and Organometallic Principles in the Design of Multifunctional Materials", *Material Research Society Symposium Proceedings*, Vol.175, Eds. A. Buckley, G. Gallagher- Daggitt, F.E. Karasz and D.R. Ulrich, 1990, 363.

202 D.M.P. Mingos, "What is Chemistry". *The Guinness Encyclopedia*, Ed. Ian Crofton, Guinness Publishing, London 1990, 40.

203 T. Slee and D.M.P. Mingos, "A Molecular Orbital Study of Trinuclear Platinum Clusters," *J. Organometal. Chem.* 1990, **394**, 679.

204 S.G. Bott, A.D. Burrows, O.J. Ezomo, M.F. Hallam, J.G. Jeffrey and D.M.P. Mingos, "Substitution Chemistry of Carbonyl and Sulphur Dioxide Triangulo- Platinum Clusters" *Journal of the Chemical Society Dalton Transactions*, 1990, 3335.

1991

205 D.M.P. Mingos and D.J. Wales, "Structural Rearrangements in Clusters: Some New Insights Involving Lipscomb's Diamond Square Diamond Mechanism", *Electron Deficient Boron and Carbon Clusters*, Eds. G.A. Olah, R.E. Williams and K. Wade, John Wiley, New York, 1991, 143.

206 D.M.P. Mingos and D.L. Greene, "Application of Microwave Dielectric Loss Heating Effects for the Rapid and Convenient Synthesis of Ruthenium(II) Polypyridyl Complexes", *Transition Metal Chemistry*, 1991, **16**, 71.

207 D.M.P. Mingos and J. Modrego "Exceptions to the Polyhedral Skeletal Electron Pair Theory in Heterometallic Naked Clusters", *New Journal of Chemistry*, 1991, **15**, 9.

208 D.M.P. Mingos, "Theoretical Aspects of Metal Cluster Chemistry", *Pure & Applied Chemistry*, 1991, **63**, 807.

209 Lin Zhenyang, R.P.F. Kanters and D.M.P. Mingos, "Closed Shell Electronic Requirements for Condensed Clusters of the Group 11 Elements", *Inorganic Chemistry*, 1991, **30**, 91.

210 H.L. Bray, H.G. Drickamer, J.R. Shapley and D.M.P. Mingos and M.J. Watson, "Pressure Induced Isomerisations of $[\text{Rh}_2(\mu\text{-Cl})_2(\text{CNC}_8\text{Cl}_9)(\mu\text{-AuPPh}_3)]_2(\text{PF}_6)_2$ ", *Inorganic Chemistry*, 1991, **30**, 864.

211 S.G. Bott, J.C. Machell, D.M.P. Mingos and M.J. Watson, "Synthesis & Structural Characterization of mer - $[\text{Rh}(\text{CNC}_8\text{H}_9)_3(\text{SnCl}_3)(\mu\text{-SnCl}_2)]_2$ ", *Journal of the Chemical Society Dalton Transactions*, 1991, 859.

212 D.M.P. Mingos and M.J. Watson, "Recent Developments in the Homo- and Hetero-Metallic Cluster Compounds of Gold", *Transition Metal Chemistry*, 1991, **16**, 285.

213 A.D. Burrows, J.G. Jeffrey, J.C. Machell and D.M.P. Mingos, "Synthesis and Crystal Structure of a Platinum-Silver Cluster Compound, $[\text{Pt}_3\text{Ag}(\text{O}_3\text{SCF}_3)(\text{m-Ce})_3(\text{PCy}_3)_2(\text{dppp})]$ with a Distorted Tetrahedral Geometry", *J. Organometallic Chemistry*, 1991, **406**, 3989.

214 D.R. Baghurst and D.M.P. Mingos, "Applications of Microwave Dielectric Heating Effects to Synthetic Problems in Chemistry", *Chemical Society Reviews*, 1991, **20**, 1.

215 C. Lamberth, D.M. Murphy and D.M.P. Mingos "Second Harmonic Generation Properties of Some Co-ordination Compounds Based on Pentadionato- and Polyene Ligands", *Proceedings Second Symposium on Organic Materials for Non-Linear Optics*, 1991, 183.

216 R.C.B. Copley, C. Lamberth, J. Machell, D.M.P. Mingos, D.M. Murphy and H. Powell, "Second Harmonic Generation Properties of Some Coordination Compounds Based on Pentadionato-Ligands", *Journal of Materials Chemistry*, 1991, **1**, 583.

217 C. Lamberth, J.C. Machell, D.M.P. Mingos and T.L. Stolberg, "Preparation and Second Harmonic Generation Properties of Tris(catecholato)tin(IV) Compounds", *Journal of Materials Chemistry*, 1991, **1**, 775.

218 S.G. Bott, H. Fleischer, M. Leach, D.M.P. Mingos, H. Powell, D.J. Watkin and M.J. Watson, "Synthesis of Heteronuclear Gold- Rhodium Cluster Compounds and Structural Characterization of $[\text{Rh}(\text{CNC}_8\text{H}_9)_3(\text{AuPPh}_3)_5]^{2+}$ and $[\text{RhCCNC}_8\text{H}_9)_2\text{-AuPPh}_3)_6(\text{AuCl})_2]^+$ ", *Journal of the Chemical Society Dalton Transactions*, 1991, 2569.

219 D.M.P. Mingos, "The Synthesis of New Materials and their Precursors using Microwave Dielectric Heating Effects", *Proceedings of Institute of Metals Symposium*, London, 1991.

220 D.M.P. Mingos and A.L. Rohl, "Size and Shape Characteristics of Inorganic Molecules and Ions and their Relevance to Molecular Packing Problems", *Journal of the Chemical Society Dalton Transactions*, 1991, 3419-3425.

221 R.L. Johnston, D.M.P. Mingos and P. Sherwood, "Bonding and Electron Counting in Hyper Closo Metalloboranes and Metallocarboranes", *New Journal of Chemistry*, 1991, **15**, 831-841.

222 D.M.P. Mingos and A.L. Rohl, "Size and Shape Characteristics of Inorganic Molecules and Ions and their Relevance to Crystallization Phenomena", *Inorganic Chemistry*, 1991, **30**, 3679-3771.

1992

223 A.D. Burrows, D.M.P. Mingos and H.R. Powell, "Synthesis and Characterisation of Tetra and Penta-Palladium Clusters with Sulphur Dioxide as a Ligand", *Journal of the Chemical Society Dalton Transactions*, 1992, 261-268.

224 D.R. Baghurst and D.M.P. Mingos, "A New Reaction Vessel for Accelerated Syntheses Using Microwave Dielectric Superheating Effects", *Journal of the Chemical Society Dalton Transactions*, 1992, 1151-1155.

225 A.D. Burrows, J.C. Machell, D.M.P. Mingos and H.R. Powell, "Substitution and Fragmentation Reactions of Pentapalladium Cluster Compounds", *Journal of the Chemical Society Dalton Transactions*, 1992, 1521-1530.

226 D.R. Baghurst and D.M.P. Mingos, "Super Heating Effects Associated with Microwave Dielectric Heating", *J.C.S. Chemical Communications*, 1992, 674-677.

227 A.D. Burrows, J.C. Machell and D.M.P. Mingos, "Synthesis, Structure and Reactivity of Anionic Tripalladium Cluster Compounds", *Journal of the Chemical Society Dalton Transactions*, 1992, 1939-1947.

228 D.M.P. Mingos, J.E. McGrady and A.L. Rohl, "Moments of Inertia in Cluster and Coordination Compounds", *Structure and Bonding*, 1992, **79**, 1-54.

229 P.D. Lyne and D.M.P. Mingos "Systematics of Electron Rich Polyhedral Molecules", Chapter in *An Economy to Linus Pauling -Molecules in Natural Science and Medicine*, Ed. Z.B. Maksic and M.Eckert-Maksic, Ellis Horwood, 1992.

230 R.C.B. Copley and D.M.P. Mingos, "Synthesis and Structural Characterisation of $[\text{Au}_9\text{Ag}_4\text{Cl}_4(\text{PMe}_2\text{Ph})_8][\text{C}_2\text{B}_9\text{H}_{12}] \cdot 0.5\text{CH}_2\text{Cl}_2$: The First Example of an Icosahedral Silver-

Gold Cluster Compound", *Journal of the Chemical Society Dalton Transactions*, 1992, 1755-1756

231 A. Albinati, K.H. Dahmen, F. Demartin, J.M. Forward, C.J. Longley, D.M.P. Mingos and L.M. Venanzi, "A New Class of Planar Mixed Metal Clusters Containing a $[\text{Pt}_3(\text{CO})_3(\text{PR}_3)_3]$ Moiety Capped by two Hg-X Units", *Inorg. Chem.*, 1992, **31**, 2223-30.

232 A.D. Burrows, J.C. Machell and D.M.P. Mingos, "Synthesis, Structure and Reactions of a Palladium Cluster Compound Containing Bound Acetonitrile $[\text{Pd}_4(\text{SO}_2)_4(\text{MeCN})(\text{PPh}_3)_4]$ ", *J. Chem. Soc. Dalton Trans.*, 1992, 1991-5.

233 D.M.P. Mingos, "Bonding Connections and Inter-relationships", *Inorganometallics*, ed. T.P. Fehlner, Plenum Press, New York, 1992, 179-222.

234 D.M.P. Mingos, "Dictionary of Inorganic Compounds", *Compounds of Copper, Silver and Gold*, Ed. J. E. MacIntyre, Chapman and Hall, London, 1992,.

235 D.M.P. Mingos, "Synthesis of New Materials and their Precursors using Microwave Dielectric Heating Effects", in *Microwave Processing of Materials*, Ed. J.G.P. Binner, Woodhead Publishing, Cambridge, U.K. 1992.

236 D.M.P. Mingos, H.R. Powell T.A. Stolberg, "Synthesis and Characterisation of the Tetrahedral Cluster $[\text{Au}_4(\text{PPh}_3)_4(\text{SnCl}_3)_2]$ ", *Transition Metal Chemistry*, 1992, **17**, 334-337.

237 A.D. Burrows, H. Fleischer and D.M.P. Mingos, "The Synthesis and Structural Characterisation of the Penta-Palladium Cluster $[\text{Pd}_5(\text{SO}_2)_3(\text{CNXyllyl})_7]$ with Linear Bridging Isocyanides", *J. Organometallic Chem.*, 1992, **433**, 311-321.

238 D.M.P. Mingos, "Microwave Syntheses of Materials and Their Precursors", in *Chemical Processing of Advanced Materials*, Eds. L.L. Hench and J.K. West, John Wiley and Sons, New York, U.S.A., 1992, 717-725.

239 D.R. Baghurst and D.M.P. Mingos, "The Application of Microwaves in the Processing of Inorganic Materials", *British Ceramics Transactions and Journal*, 1992, **91**, 124-127.

240 A.G. Whittaker and D.M.P. Mingos, "Microwave Assisted Solid State Reactions Involving Metal Powders", *J. Chem. Soc. Dalton Trans.*, 1992, 2751-2.

241 P.D. Lyne, D.M.P. Mingos and T. Ziegler, "A Theoretical Study of Te_6^{2+} and $\text{Te}_4\text{S}_4^{2+}$ ", *J. Chem. Soc. Dalton Trans.*, 1992, 2743-2747.

242 C.M. Hill, D.M.P. Mingos, H.R. Powell and M.J. Watson, "Synthesis and Structural Characterisation of Some Triangular and Tetrahedral Mixed Metal Platinum Metal Clusters", *J. Organometallic Chemistry*, 1992, **441**, 499-511.

243 A.L. Rohl and D.M.P. Mingos, "The Size and Shape of Molecular Ions and Their Relevance to the Packing of the Hexafluorophosphate Salts", *Journal of the Chemical Society Dalton Transactions*, 1992, 3541-3552.

244 D.M.P. Mingos and M.J. Watson, "Heterometallic Cluster Compounds of Gold", *Advances in Inorganic and Radiochemistry*, 1992, **39**, 327-399.

- 245 D.M. Murphy, D.M.P. Mingos and J.M. Forward, "The Synthesis of Icosahedral Carboranes for Second Harmonic Generation, Part I", *J. Materials Chemistry*, 1993, **3**, 67-76.
- 246 J.A. Burgess, D.M.P. Mingos and A.L. Rohl, "Relationship between Computed and Experimentally Determined Molecular Volumes and Radii", *Journal of the Chemical Society Dalton Transactions*, 1993, 423-426.
- 247 D.M. Murphy, D.M.P. Mingos, J.L. Haggitt, H.R. Powell, S. Westcott, TD. Marder, N.J. Taylor and D.R. Kanis, "The Synthesis of Icosahedral Carboranes for Second Harmonic Generation - Part I", *J. Materials Chemistry*, 1993, **3**, 139-148.
- 248 A.D. Burrows and D.M.P. Mingos, "A Review of Palladium Cluster Chemistry", *Transition Metal Chemistry*, 1993, **18**, 129-148.
- 249 D.R. Baghurst, R.C. Copley, H. Fleischer, D.M.P. Mingos, G.O. Kyd, L.J. Yellowless, A.J. Welch and T.R. Spalding, "Sterically-Induced Low Temperature Polyhedral Rearrangements of Carbaplatinaaboranes", *J. Organometallic Chemistry*, 1993, **447**, C14-C17.
- 250 D.M.P. Mingos, "Recent Developments in the Cluster Chemistry of Gold", *Proceedings of First Int. Conference on the Chemistry of the Copper and Zinc Triads*, Ed. A.J. Welch, *Royal Society of Chemistry*, 1993, 189-197.
- 251 D.M.P. Mingos, "Applications of Microwaves in Chemical Syntheses", *Proceedings: Microwave-Induced Reactions Workshop*, Electric Power Research Institute, Asilomar, California, 1993, A-8.
- 252 B. Krieger-Brocket, D.M.P. Mingos and J. Wan, "Fundamentals and Mechanisms in Microwave Dielectric Heating", *Proceedings: Microwave-Induced Reactions Workshop*, Electric Power Research Institute, Asilomar, California, 1993, 4-1.
- 253 D.M.P. Mingos, "High Nuclearity Clusters of the Transition Metals and a Re-evaluation of the Cluster Surface Analogy", *J. Cluster Science*, 1993, **3**, 397-410.
- 254 K. Puech, W. Blau, G. Schmid and D.M.P. Mingos, "Third Order Susceptibility of Metallic Colloidal and Cluster Systems", in *Physics and Chemistry of Finite Systems: From Clusters to Crystals II*, Ed. P. Jena, Huwer Academic, Amsterdam, 1993, 355-362.
- 255 J.M. Forward, D.M.P. Mingos, W. Siebert, J. Hauss and H.R. Powell, "Synthesis and Characterisation of Novel Metallocarborane Triple Decker Complexes", *Journal of the Chemical Society Dalton Transactions*, 1993, 1783-1788.
- 256 G.M.T. Cheetham, M.M. Harding, J.L. Haggitt and D.M.P. Mingos, "The Synthesis and Micro-Crystal Structure Determination of $[Au_{10}(PPh_3)_7(S_2C_2CN)_2]_2$ with Monochromatic Synchrotron Radiation", *J.C.S. Chemical Communications*, 1993, 1000-1001.
- 257 A.D. Burrows, A.A. Gosden, C.M. Hill and D.M.P. Mingos, "The Synthesis and Structure of a Gold Capped Palladium Triangulo-Cluster Compound Containing an Isocyanide Ligand". *J. Organometallic Chemistry*, 1993, **452**, 251-255.
- 258 D.M.P. Mingos, "Dictionary of Inorganic Compounds" - Contribution for *Cu, Ag and Au*, *Supplement 1*, Chapman and Hall, London, 1993.
- 259 D.M.P. Mingos, S. Weisberger and S. Heeb, "Molecular Orbital Analysis of Main Group Clusters with Interstitial Transition Metal Atoms", *New Journal of Chemistry*, 1993, **17**, 531-543.

- 260 D.M.P. Mingos and A.L. Rohl, "Size and Shape of Molecular Ions and their Relevance to the Packing of Soft Salts", *Inorganica Chimica Acta*, 1993, **212**, 5-13.
- 261 D.M.P. Mingos, "Microwave Syntheses of Inorganic Materials", *Advanced Materials*, 1993, **5**, 857-9.
- 262 P.D. Lyne, D.M.P. Mingos, T. Ziegler and A.J. Downs, "A Molecular Orbital Analysis of the Intermediates and Products Generated by the Photo-Oxidation of Iron Pentacarbonyl", *Inorganic Chemistry*,
- 263 A. Houlton, D.M.P. Mingos, D.M. Murphy, D.J. Williams, Lai-Tee Phang and T.S.A. Hor, "Synthesis and Structural Characterization of an Au-P Linked Polymer Chain. The Molecular Structure of Two Pseudo- polymorphic forms of $[\{AuCl(dppf)\}_n]$. *Journal of the Chemical Society Dalton Transactions*, 1993, 3629.
- 264 A.D. Burrows, C.M. Hill and D.M.P. Mingos, "Synthesis and Structure of Some Palladium(I) Cluster Compounds Containing Isocyanide Ligands", *J. Organometallic Chemistry*, 1993, **456**, 155-160.
- 265 J. L. Haggitt and D.M.P. Mingos, "Synthesis and interconversion of *triangulo*- cluster compounds of platinum with isocyanide and phosphine ligands", *J. Organometallic Chemistry*, 1993, **462**, 365-374
- 266 A.G. Whittaker and D.M.P. Mingos, "Microwave Assisted Solid State Reactions Involving Metal Powders and Gases", *Journal of the Chemical Society Dalton Transactions*, 1993, 2541-2543.

1994

- 267 G.D. Brown, D.R. Turton, S.K. Luthra, P. Price, T. Jones, M.F.G. Stevens, D.R. Baghurst, D.M.P. Mingos, S. Osman, S.L. Waters and F. Brady, "Synthesis of [^{11}C -methyl] Methylisocyanate and Application with Microwave Heating to Labelling the Novel Anticancer Agent Temozolomide", *J. Labelled Compounds and Radiopharmaceuticals*, 1994, **35**, 100-102.
- 268 D.M.P. Mingos, "The Applications of Microwaves in Chemical Synthesis", *Res. Chem. Intermed.*, 1994, **20**, 85-91.
- 269 J.M. Forward, D.M.P. Mingos and A.V. Powell, "Synthesis and Magnetic Studies of the Metallocarborane Sandwich salts $[Fe(C_5Me_5)_2][M(C_2B_9H_{11})_2]$ (M = Cr, Fe and Ni), *Journal of Organometallic Chemistry*, 1994, **465**, 251-258.
- 270 A. Houlton, D.M.P. Mingos and D.J. Williams, "Molecular Recognition of Nucleoside Bases by a Metal Complexes. A Novel Bifunctionality with Implications for Metallo-Drug Design", *J.C.S. Chemical Communications*, 1994, 503-4.
- 271 J.F. Forward, D.M.P. Mingos, T.E. Muller, D.J. Williams and D.M.P. Mingos, "Synthesis and Characterisation of metallocarborane sandwich salts with tetrathiafulvalene (tff) $[M(C_2B_9H_{11})_2][tff]$ (M = Cr, Fe Ni), *J. Organometal. Chem.*, 1994, **467**, 207-216.
- 272 J.L. Haggitt and D.M.P. Mingos, "Synthesis and Characterisation of Penta-, and Hexa- platinum Cluster Compounds", *Journal of the Chemical Society Dalton Transactions*, 1994, 1013-1023.
- 273 D.J. Rankin, H.E. Robertson, A.A. Danopoulos, P.D. Lyne, D.M.P. Mingos, and G. Wilkinson, "Molecular Structure of Tetrakis(tert-Butylimido)osmium(VIII) determined in the

Gas Phase by Electron Diffraction”, *Journal of the Chemical Society Dalton Transactions*, 1994, 1563-1569.

274 Y.K. Yan, D.M.P. Mingos, T. Muller and D. J. Williams and M. Kurmoo, “Synthesis and Structure of a Charge-Compensated Ferracarborane, *commo*-[3,3'-Fe{4-(Me₂S)-1,2-C₂B₉H₁₀}₂], and its Charge-transfer Salt with 2,3-Dichloro-5,6-dicyano-p-benzoquinone”, *Journal of the Chemical Society Dalton Transactions*, 1994, 1735 - 1741.

275 D.M.P. Mingos, “Microwaves in Chemical Synthesis”, *Chemistry Industry*, 1994, 596-599.

276 T. E. Muller, D.M.P. Mingos and D.J. Williams, “T-Shaped Intermolecular CH π (CC) Interactions in Chloroform Solvates of Gold(I) Ethyne Complexes, *J.C.S. Chemical Communications*, 1994, 1787-8.

277 D.M.P. Mingos and D.R. Baghurst “Dictionary of Inorganic Compounds” - Contribution for *Cu, Ag and Au, Supplement 2*, Chapman and Hall, London, 1994.

278 D.M.P. Mingos, Editor - Special Volume Dedicated to Theoretical and Computational Organometallic Chemistry, *J. of Organometallic Chemistry*, 1994, **478**, vii.

279 P.D. Lyne and D.M.P. Mingos, “The Effects of Back Bonding to Phosphines on the *trans*- influence in [Mo(NH)Cl₃(PR₃)₂]^{0,+/-1}”, *J. Organometallic Chemistry*, 1994, **478**, 141-151.

280 D.M.P. Mingos and J. Yau, Synthesis and Applications of [Au(NCPh)₂]BF₄ - A Versatile Labile Intermediate for Gold(I) Chemistry, *J. Organometallic Chemistry*, 1994, **479**, C16-C17.

281 D.M.P. Mingos and A. F. Orchard, “Symmetries of Inorganic Molecules and Applications of Group Theory and Graph Theory”, *Inorganic Experiments*, Ed. D.J. Woollins, Verlag Chemie, Weinheim, 1994, 160-183.

282 D.M.P. Mingos, “A Chemists View of Clusters”, *Contemporary Physics*, 1994, **35**, 181-9.

283 A. Houlton, D.M.P. Mingos and D.J. Williams, “Multidimensional Crystal Engineering of Metal Complexes Based on Complementary Hydrogen Bonding”, *Transition Metal Chemistry*, 1994, **19**, 653-656.

284 V.C. Arunasalam, D.M.P. Mingos, M.B. Hursthouse and J. Plakatouras, “Sulphur Dioxide Insertion Reactions into Metal-Alkoxide Bonds; Synthesis and Crystal Structure of Catena- Bis(methylsulphito)bis(methanol)calcium. A One Dimensional Polymer Based on 8-Co-ordinate Calcium Ions”, *J. C.S. Chemical Communications*, 1994, 2695-2696.

285 T.E. Muller, Sam Wing-Kin Choi, D.M.P. Mingos, D. Murphy, D.J. Williams and V.W.-W. Yam, “Synthesis, Structural Characterisation and Photophysical Properties of Gold(I) Ethyne Complexes, *J. Organometallic Chemistry*, 1994, **484**, 209-224.

286 D.M.P. Mingos, P.D. Lyne and U. Pidun, “Recent Developments in the Application of Theory to Structural Problems in Co-ordination Chemistry”, *Pure and Applied Chemistry*, 1994, **67**, 265-272.

287 A.G. Whittaker and D.M.P. Mingos, “The Applications of Microwave Heating to Chemical Syntheses”, *J. Microwave Power*, 1994, **29**, 195-219.

- 288 D.M.P. Mingos, P.D. Lyne, U. Pidun, "Recent Developments in the Application of Theory to Structural Problems in Co-ordination Chemistry", *Pure and Applied Chemistry*, 1995, **67**, 265-272.
- 289 D.M.P. Mingos, J. Yau, S. Menzer and D.J. Williams, "Synthesis of $[\text{Au}(\text{NH}_3)_2]^+$ salts and the Crystal Structure of $[\text{Au}(\text{NH}_3)_2]\text{Br}$ ", *Journal of the Chemical Society Dalton Transactions*, 1995, 319-320.
- 290 D.R. Baghurst, J. Barrett and D.M.P. Mingos, "The Hydrothermal Microwave Synthesis of Scorodite: Iron(III) Arsenate(V) Dihydrate, $\text{FeAsO}_4 \cdot 2\text{H}_2\text{O}$ ", *J.C.S. Chemical Communications*, 1995, 323-4.
- 291 R. C. B. Copley, C. M. Hill and D. M. P. Mingos, "Synthesis and Structural Characterisation of $[\text{Pd}_{14}\text{Au}_2(\text{PMe}_3)_{11}(\text{CO})_9](\text{PF}_6)_2$ - An Icosahedrally Based High Nuclearity Mixed Metal Cluster", *J. Cluster Science* (L.F. Dahl Commemorative Issue), 1995, **6**, 71-91.
- 292 P.D. Lyne and D.M.P. Mingos, "An Investigation of the *Trans*-Influence in Transition Metal Nitrido- Complexes", *Journal of the Chemical Society Dalton Transactions*, 1995, 1635-1643.
- 293 A. Houlton, D.M.P. Mingos, D.M. Murphy and D.J. Williams, "The Crystal And Molecular Structure of $[\text{Au}_2\text{Cl}_2(\text{fdpp})_3]$. A structural Intermediate in the Assembly of Gold Phosphine Chain Polymers", *Acta Cryst.*, 1995, **C51**, 30-32.
- 294 V.-C. Arunasalam, D.M.P. Mingos, J.C. Plakatouras, I. Baxter, M.B. Hursthouse and K.M.A. Malik, "Carbonyl-sulfide Insertion Reactions into Metal-Alkoxide Bonds. Synthesis and Molecular Structure of Di(bis(methylthiocarbonato)tris(methanol)calcium" *Polyhedron*, 1995, **14**, 1105-8.
- 295 D.M.P. Mingos, "Going for Gold - Recent Developments in Gold Chemistry", *Proceedings of V Congreso Iberoamericano de Quimica Inorganica Y XII Congreso Mexicano de Quimica Inorganica*, 1995, 483-492.
- 296 A.G. Whittaker and D.M.P. Mingos, "Microwave Assisted Solid State Reactions", *Journal of the Chemical Society Dalton Transactions*, 1995, 2073-79.
- 297 A.D. Burrows, R. Vilar, S. Menzer, D.M.P. Mingos and D.J. Williams, "Synthesis and Crystal Structure of $[\text{Pd}_4(\mu\text{-CH})(\mu\text{-Cl})_3(\text{P}^t\text{Bu}_3)_4]$ ", *Journal of the Chemical Society Dalton Transactions*, 1995, 2107-8.
- 298 Y.-K. Yan, D.M.P. Mingos, M. Kurmoo, W.-S. Li, I.J. Scowen, M. McPartlin, A.T. Coomber and R.H. Friend, "Two Tetrathiafulvalene Salts of a New Thiophene Functionalised Ferracarborane: Electrical Conductivity as a Function of Crystal Composition", *J.C.S. Chemical Communications*, 1995, 997-8.
- 299 Y.K. Yan and D.M.P. Mingos, "Structural, Magnetic and Electronic Properties of Charge Transfer Salts of Metallacarboranes", *Chemical Society Reviews*, 1995, **24**, 203-214.
- 300 D.M.P. Mingos, "Essentials of Inorganic Chemistry 1", *Oxford Chemistry Primers*, Oxford University Press, Oxford, 1995 (ISBN 0 19 855848 1).

- 301 Y.-K. Yan, D.M.P. Mingos, M. Kurmoo, W.-S. Li, I.J. Scowen, M. McPartlin, A.T. Coomber and R.H. Friend, "Two Tetrathiafulvalene Salts of a New Thiophene Functionalised Ferracarborane: Electrical Conductivity as a Function of Crystal Composition", *J.C.S. Chemical Communications*, 1995, 997-998.
- 302 Y.-K. Yan, D.M.P. Mingos, T.E. Muller, D.J. Williams and M. Kurmoo, "Synthesis and Characterisation of the Mixed Sandwich Complex *closo*-[3-(η -Cp*Fe){4-(Me₂S)-1,2-C₂B₉H₁₀}] and its Charge Transfer Salts with DDQ and TCNQF₄: the Crystal Structure of [Cp*Fe(C₂B₉H₁₀SMe₂)]⁺[DDQ]⁻.CH₂Cl₂. *Journal of the Chemical Society Dalton Transactions*, 1995, 2509-2514.
- 303 J. Yau, D.M.P. Mingos, S. Menzer and D.J. Williams, "Synthesis and Crystal Structure of {[Au₂(dien)₂]²⁺]_n, an Infinite Linear Polymer Based on Weak Gold-Gold Contacts", *Journal of the Chemical Society Dalton Transactions*, 1995, 2575-2576.
- 304 Y.-K. Yan, D.M.P. Mingos and D.J. Williams, "Diastereoisomers of the Carborane Sandwich Complex *commo*-[3,3'-Fe{4-(Me₂S)-1,2-C₂B₉H₁₀}]₂; Crystal Structure of *meso*-[Fe(C₂B₉H₁₀SMe₂)₂]", *J. Organometal. Chem.*, 1995, **498**, 267-274.
- 305 D.M.P. Mingos, S. Menzer, J. Yau and D.J. Williams, "Gold(I)[2]catenane", *Angew. Chemie*, 1995, **107**, 2045-7, *Angew. Chemie Intern. Ed.*, 1995, **34**, 1894-5.
- 306 P.J. Dyson, S.L. Ingham, B.F.G. Johnson, J.E. McGrady, D.M.P. Mingos and A.J. Blake, "C₄ - Ring Transfer Reactions Applied to Cluster Chemistry", *Journal of the Chemical Society Dalton Transactions*, 1995, 2749-2755.
- 307 D.M.P. Mingos, A. Lacey, C. Graham, M. H Hayes, L. Vaidyanathan, "Preparation of Pillared Clays and Studies of Their Sorption of Humic Substances", Proceedings, 7th International Conference Humic Substances, Trinidad, 1994.
- 308 Y.-K. Yan, D.M.P. Mingos, M. Kurmoo, W.-S. Li, I.J. Scowen, M. McPartlin, A.T. Coomber and R.H. Friend, "Synthesis, Structure and Physical Properties of Tetrathiafulvalenium Salts of the Ferracarborane Complex, *commo*-[3,3'-Fe{1-(thiophene-2-yl)-1,2-C₂B₉H₁₀}]₂]", *Journal of the Chemical Society Dalton Transactions*, 1995, 2851-2860.
- 309 Y.K. Yan, D.M.P. Mingos, D.J. Williams and M. Kurmoo, "Synthesis, Structures and Physical Properties of Bis(ethylenedithio)tetrathiafulvalene Salts of Paramagnetic Metallocarborane Anions", *J. Chem. Soc., Dalton Trans.*, 1995, 3221-3230.
- 310 D.M.P. Mingos and T.E. Muller, "Complexes of Gold with Polyaromatic Phosphine Ligands", *J. Organometal. Chem.*, 1995, **500**, 251-261.
- 311 D.M.P. Mingos, H.R. Powell and J. Yau, "Synthesis and X-ray Structure of [Au₂(cyclam)₂][BF₄]₂.CH₃CN-cyclam = 1,4,8,11- tetraazacyclotetra-decane)", *Polyhedron*, 1995, **15**, 367-369.
- 312 A.D. Burrows, C.-W. Chan, M.M. Chowdhry, J.E. McGrady and D.M.P. Mingos, "Multidimensional Crystal Engineering of Bifunctional Metal Complexes Containing Complementary Triple Hydrogen Bonds", *Chem. Soc. Reviews*, 1995, **24**, 329-339.
- 313 T.E. Muller and D.M.P. Mingos, "Determination of the Tolman Cone Angle from Crystallographic Parameters and a Stastical Analysis Using the Crystallographic Data Base", *Transition Metal Chemistry* (Special 20th Anniversary Issue), 1995, **20**, 533-539.

314 J.E. McGrady and D.M.P. Mingos, "Complementary Hydrogen Bonding in Diamides : A Study on the Influence of Remote Substituents Using Density Functional Theory", *Journal of the Chemical Society Perkin Transactions, II*, 1995, 2287-2291.

316 D.M.P. Mingos and C. M. Hill, "Synthesis and characterisation of $[\text{Pd}_{10}(\mu\text{-CO})_8(\mu_3\text{-CO})_4(\text{PEt}_3)_6]$ and $[\text{Pd}_{10}(\mu\text{-CO})_6(\mu_3\text{-CO})_2(\mu\text{-CNXyly})_2(\text{PEt}_3)_6]$ ", *Croatia Chemica Acta (Special Issue on Cluster Chemistry)*, 1995, **68**, 745-767.

317 D.M.P. Mingos and D.R. Baghurst, "Dictionary of Inorganic Compounds" - Contribution for Cu, Ag and Au, Chapman and Hall, Supplement 3, London 1995.

1996

318 R. Vilar and D.M.P. Mingos, "Synthesis, characterisation and reactivity studies of alkylidyne palladium cluster compounds", *J. Cluster Sci.*, 1996, **7**, 6663.

319 A.D. Burrows, D.M.P. Mingos, A.J.P. White and D.J. Williams, "Molecular Recognition of 2,6-Diaminopyridine by Platinum Orotate Complexes", *Journal of the Chemical Society Dalton Transactions.*, 1996, 149-151.

320 C.-W. Chan, D.M.P. Mingos, A.J.P. White and D.J. Williams, "Multidomain hydrogen-bond Forming Metal Chelates: X-ray Structures of Dicyclopalladated 2,3-Bis[6-(2-amino-4-phenylamino-1,3,5-triazinyl)]pyrazine (H_2L) $[\text{Pd}_2\text{Br}_2(\text{L})]$ and 2,6-Bis[6-(2-amino-4-phenylamino-1,3,5-triazinylium)]pyridine Dichloride", *J C.S. Chemical Communications*, 1996, 81-83.

321 A.D. Burrows, D.M.P. Mingos, A.J.P. White and D.J. Williams, "Crystal Engineering of Metal Complexes based on Charge Augmented Double Hydrogen Bond Interactions between Thiosemicarbizides and Carboxylates", *Journal of the Chemical Society Dalton Transactions*, 1996, 97-100.

322 R.C.B. Copley and D.M.P. Mingos, "The Novel Structure of the $[\text{Au}_{11}(\text{PMePh}_2)_{10}]^{3+}$ Cation: Crystal Structures of $[\text{Au}_{11}(\text{PMePh}_2)_{10}](\text{C}_2\text{B}_9\text{H}_{12})_3 \cdot 4\text{thf}$ and $[\text{Au}_{11}(\text{PMePh}_2)_{10}](\text{C}_2\text{B}_9\text{H}_{12})_3$ ", *Journal of the Chemical Society Dalton Transactions*, 1996, 479-489.

323 R.C.B. Copley and D.M.P. Mingos, "Synthesis and Characterization of the Centred Icosahedral Cluster Series, $[\text{Au}_8\text{M}^{\text{IB}}_4\text{Cl}_4(\text{PMePh}_2)_8](\text{C}_2\text{B}_9\text{H}_{12})$, where $\text{M}^{\text{IB}} = \text{Au}, \text{Ag}$ and Cu ; Crystal Structures of $[\text{Au}_8\text{Ag}_4\text{Cl}_4(\text{PMePh}_2)_8](\text{C}_2\text{B}_9\text{H}_{12}) \cdot \text{H}_2\text{O} \cdot 0.5\text{CH}_2\text{Cl}_2$ and $[\text{Au}_8\text{Cu}_4\text{Cl}_4(\text{PMePh}_2)_8](\text{C}_2\text{B}_9\text{H}_{12}) \cdot \text{CH}_2\text{Cl}_2$ ", *Journal of the Chemical Society Dalton Transactions*, 1996, 491-500.

324 D.M.P. Mingos, "Gold - A Flexible Friend in Cluster Chemistry", *Journal of the Chemical Society Dalton Transactions*, 1996, 561-566.

325 J.E. McGrady and D.M.P. Mingos, "The Role of Transition Metal Ions in Hydrogen Bonded Networks : A Density Functional Molecular Orbital Theory Study", *Journal of the Chemical Society Perkin Transactions II*, 1996, 355-358.

326 D. Brown, S.K. Luthra, F. Brady, S. Osman, S.L. Waters, D. Dijkstra, H. Wilkstrom, D. Baghurst and D.M.P. Mingos, "Carbon-11 Labelling of the D: Agonist (+/-)-4-[1- ^{11}C -propyl-9-hydroxynaphthoxazine] (+/-) $^{11}\text{CPHNO}$ ", *Journal of Labelled Compounds, and Radiopharmaceuticals*, 1996, **37**, 3-5.

327 M.M. Chowdhry, D.M.P. Mingos, A.J.P. White and D.J. Williams, "Novel Supramolecular self-assembly of a transition metal-organo network based on

simultaneous coordinate and hydrogen bond interactions”, *J.C.S. Chemical Communications*, 1996, 899-900.

328 M.-F. Fan, Z. Lin, J.E. McGrady and D.M.P. Mingos, “Novel Intermolecular

CH π Interactions: A Combined *ab initio* and Density Functional Theory Study”, *Journal of the Chemical Society Perkin Transactions*, 1996, 563-568.

329 D.M.P. Mingos, “Essentials of Inorganic Chemistry 1”, Japanese Translation, Oxford University Press, Tokyo, 1996.

330 V.-C. Arunasalam, D.M.P. Mingos, J.C. Plakatouras, I. Baxter, M.B. Hursthouse and K.M.A. Malik, “Synthesis and Characterisation of β -Diketonate Aryloxide Dimer $[\text{Ca}_2(\text{tmhd})_4(\text{OAr}_N)_4(\text{EtOH})_2]$ ”, *Polyhedron*, 1996, **15**, 3971.

331 A.D. Burrows and D.M.P. Mingos, “The Chemistry of Group 10 metal *triangulo*-Clusters”, *Coordination Chemical Reviews*, 1996, **154**, 19-69.

332 V.-C. Arunasalam, S.R. Drake, D.M.P. Mingos, S.M. Miller, M.B. Hursthouse and K.M. A. Malik, “Synthesis and Characterisation of Magnesium and Calcium β -Diketonate Complexes: X-Ray structures of the Calcium β -Diketonates $[\text{Ca}_3(\text{tmhd})_6]$ and $[\text{Ca}_2(\text{tmhd})_4(\text{EtOH})_2]$ (where H-tmhd is 2,2,6,6-tetramethylheptane-3,5-dione)”, *Journal of the Chemical Society Dalton Transactions*, 1996, 2435-2442.

333 Chin-Wing Chan, D.M.P. Mingos, A.J.P. White and D.J. Williams, “A Crystal Engineering Study of Copper(II) Complexes with 2,4-Diamino-6-(4-pyridyl)-1,3,5-triazine (3) and 2-amino-4-phenylamino-6-(4-pyridyl)-1,3,5-triazine(4)”, *Polyhedron*, 1996, **15**, 1753.

334 J.A. Darr, D.M.P. Mingos, D.E. Hibbs, M.B. Hursthouse and K.M. Abdul Malik, “A Volatile Erbium(II) β -diketonate Compound Asymmetrically Bridged by Tetraglyme”, *Polyhedron*, 1996, **15**, 3225-3231.

335 A.D. Burrows, D.M.P. Mingos, A.J.P. White and D.J. Williams, “5-Amino-orotic acid, a versatile ligand with the ability to exhibit differing coordination and hydrogen bonding modes: synthesis and crystal structures of platinum(II) complexes”, *Journal of the Chemical Society Dalton Transactions*, 1996, 3805-3813.

336 D.R. Baghurst, D.M.P. Mingos, J. Barrett, E.E. Coleyshaw and W.P. Griffith, “Microwave Techniques for the synthesis and Deuteration of Minerals, with particular reference to Scorodite, $\text{FeAsO}_4 \cdot 2\text{H}_2\text{O}$ ”, *Mineralogical Magazine*, 1996, **60**, 821-8.

337 D.M.P. Mingos and A.G. Whittaker, “Microwaves in Chemical Synthesis” in *Chemistry under Extreme or Non-Classical Conditions*, Eds. R. van Eldik and C.D. Hubbard, Spektrum, Heidelberg, Germany, 1996, 479-514.

338 R.Vilar, D.M.P. Mingos and C.J. Cardin, “Synthesis and Structural Characterisation of $[\text{Pd}_2\text{Br}_2(\text{P}^t\text{Bu}_3)_2]$ and Example of a Palladium(I) Dimer”, *Journal of the Chemical Society Dalton Transactions*, 1996, 4313-4314.

1997

339 V.-Cumaran Arunasalam, Ian Baxter, Simon R. Drake, Michael B. Hursthouse, K. M. Abdul Malik, Stewart A. S. Millar, D. Michael P. Mingos and David J. Otway, “Facile synthesis of alkaline-earth-metal β -diketonates and the structure of the loose dimer

- [{Ca(hfpd)}₂(heptaglyme)] [hfpd = F₃CCOCHCOF₃ and heptaglyme = Me(OCH₂CH₂)₇OMe], *Journal of the Chemical Society Dalton Transactions*, 1997, 1331-1335.
- 340 I.K. Bezougli, A. Bahall, M. McPartlin and D.M.P. Mingos, "Insertion of COS into Group 2 Metal-ethoxide bonds; Crystal structure of [Mg(OCSEt)₂(EtOH)₄] and [Sr₃(OCSEt)₆(EtOH)₈]", *Journal of the Chemical Society Dalton Transactions*, 1997, 287-292.
- 341 R. Vilar, S.E. Lawrence, D.M.P. Mingos and D.J. Williams, "A Cluster Model for the Catalytic Hydrogenation of CFCs and the Synthesis and Structural Characterisation (when X = Br) of [Pd₄(μ-CF)(μ-X)₃(PBU^t)₄]", *J.C.S. Chemical Communications*, 1997, 285-286.
- 342 J. Yau and D.M.P. Mingos, "Synthesis and Application of [Au(NCPh)₂]⁺, a versatile labile reaction intermediate", *Journal of the Chemical Society Dalton Transactions*, 1997, 1103-1111.
- 343 D.M. Michaelidou, D.M.P. Mingos, D.J. Williams and A.J.P. White, "Icosahedral Palladium Metallocarboranes with Thiophene Substituents: Unexpected Reaction Products from the Reaction of PdCl₂(PMe₂Ph)₂ with Tl₂[7-(RC₄H₂S)-7,8-*nido*-C₂B₉H₁₀]- (R = H or Me)", *J. Organometal. Chem.*, 1997, **528**, 135-142.
- 344 T.E. Muller, F. Ingold, S. Menzer, D.M.P. Mingos, and D.J. Williams, "Platinum(I) Dimers and Platinum(0) Triangles with Polyaromatic Phosphine Ligands", *J. Organometal. Chem.*, 1997, **528**, 163-178.
- 345 A.D. Burrows, D.M.P. Mingos, S.E. Lawrence, A.J.P. White and D.J. Williams, "Platinum Phosphine Complexes of Dicarboxylates and Ammonia and the Crystal structures of several of their derivatives", *Journal of the Chemical Society Dalton Transactions*, 1997, 1295-1300.
- 346 J.A. Darr, S.R. Drake, D.J. Otway, S.A.S. Miller, D.M.P. Mingos, I. Baxter, M.B. Hursthouse and K.M. Abdul Malik, "Group 2 β-diketonate complexes stabilised by O and N donor ligands; crystal structure of [Ca(PhCOCHCOPh)₂(pmdeta)] (pmdeta = N,N',N'',N'''-pentamethyldiethylenetriamine)", *Polyhedron*, 1997, **16**, 2581-2588.
- 347 E.C. Plappert, D.M.P. Mingos, S.E. Lawrence and D.J. Williams, "Synthesis and Structural Characterisation of Silver(I) Compounds with Nitrogen Ligands", *Journal of the Chemical Society Dalton Transactions*, 1997, 2119-2123.
- 348 D.M.P. Mingos, Editor, "Structural and Electronic Paradigms in Cluster Chemistry", *Structure and Bonding*, Springer Verlag (Berlin), 1997, **87**, (211 pages).
- 349 I. Baxter, J.A. Darr, S.R. Drake, M.B. Hursthouse, K.M. Abdul Malik and D.M.P. Mingos, "Triorganosiloxy and tetraphenyldisiloxydiolate complexes of the heavier alkaline earth metals", *Journal of the Chemical Society Dalton Transactions*, 1997, 2875-2885.
- 350 R. Vilar, S.E. Lawrence, S. Menzer, D.M.P. Mingos and D.J. Williams, "Synthesis and Structural Characterisation of tetranuclear palladium-cobalt clusters", *Journal of the Chemical Society Dalton Transactions*, 1997, 3305-3309.
- 351 D.M.P. Mingos and D.R. Baghurst, "Microwave Theory for Chemistry" in *Microwave Enhanced Chemistry*, Eds. H.M. Kingston and S. Haswell, American Chemical Society, Washington, U.S., 1997, 3-54.

352 D.M.P. Mingos and D.R. Baghurst "Microwave Assisted Inorganic Reactions", in *Microwave Enhanced Chemistry*, Eds. H.M. Kingston and S. Haswell, American Chemical Society, Washington, U.S. 1997, 523-550.

353 D.M.P. Mingos, R. Vilar, M. McPartlin and I. Scowen, Keynote article 19, "Electronic Conference on Trends in Organometallic Chemistry", Eds. H.S. Rzepa and C. Leach, Royal Society of Chemistry CD ROM, 1997, ISBN 0-85404-889-8. See also <http://www.ch.ic.ac.uk/ectoc.ectoc-3/>

354 A.D. Burrows, S. Menzer, D.M.P. Mingos, A.J.P. White and D.J. Williams, "The Influence of the Chelate Effect on Supramolecular Structure Formation: Synthesis and Crystal Structure of Zinc Thiourea and Thiosemicarbazide Complexes with Terephthalate", *Journal of the Chemical Society Dalton Transactions*, 1997, 4237-4240.

355 D.M.P. Mingos, "Essential Trends in Inorganic Chemistry", Oxford University Press, Oxford UK, 1997 (392 pages), ISBN 0 19 850109 9 (Hardback) and 0 19 850108 0 (Paperback).

1998

356 C. Gabriel, S. Gabriel, E. Grant, B. J. Halstead and D.M.P. Mingos, "Dielectric Parameters Relevant to Microwave Dielectric Heating", *Chemical Society Reviews*, 1998, **27**, 213-223.

357 D.M.P. Mingos, R. Vilar, A.J. White and D.M.P. Mingos, "Anion Control in the Self Assembly of a Cage", *Angew. Chem. Intern. Ed.*, 1998, **37**, 1258-1261.

358 I. Baxter, S.R. Drake, M. B. Hursthouse, K M Abdul Malik, D. M. P. Mingos, J. C. Plakatouras, D. J. Otway, "Group 2 titanium heterometallic alkoxides; their reproducible syntheses and characterization. Crystal structures of the compounds $[\text{SrTi}_4(\text{OEt})_{18}]$ and $[\text{Sr}_2\text{Ti}(\text{OPr}^i)_8(\text{Pr}^i\text{OH})_3]\cdot 2\text{Pr}^i\text{OH}$ " *Polyhedron.*, 1998, **17**, 625-639.

359 V. C. C. Arunasalam, I. Baxter, J. A. Darr, S. R. Drake, M. B. Hursthouse, K. M. Abdul Malik and D. M. P. Mingos, "Insertion Reactions of Small Molecules into Group 2 Metal Alkoxides; Structural Characterization of $[\text{Mg}_9(\mu_5\text{-CO}_3)(\text{O}_2\text{COME})_7(\text{OMe})_9(\text{HOMe})_{14}]$ ", *Polyhedron*, 1998, **17**, 641-657.

360 S.L. James, D.M.P. Mingos, X. Xu, A.J.P. White and D.J. Williams, "Orotate Complexes of Rhodium(I) and Iridium(I)", *Journal of the Chemical Society Dalton Transactions*, 1998, 1335-1340.

361 I. Baxter, J. A. Darr, M. B. Hursthouse, K. M. Abdul Malik, J. McAleese and D.M.P. Mingos, "The synthesis and Characterisation of some Stable Ce^{III} β -diketonate Compounds", *Polyhedron*, **17**, 1998, 329-1341.

362 S. Ulvenlund, A. S. Georgopoulou, D. M. P. Mingos, I. Baxter, S. E. Lawrence, A. J. P. White and D. J. Williams, "Synthesis and characterisation of chelating polycarboxylate ligands capable of forming intermolecular, complementary triple hydrogen bonds", *Journal of the Chemical Society Dalton Transactions*, 1998, 1869-878.

363 D.M. P. Mingos and R. Vilar, "Synthesis and reactivity of palladium cluster compounds", *Journal of Organometallic Chemistry*, 1998, **557**, 131-142.

364 T. E. Muller, J. C. Green, D. M. P. Mingos, M. McPartlin, C. Whittingham, D. J. Williams and T. M. Woodroffe, "Complexes of Gold (I) and Platinum (II) with Polyaromatic Phosphine Ligands", *Journal of Organometallic Chemistry*, 1998, **551**, 313-330.

365 I. K. Bezougli, A. Bashall, M. McPartlin and D.M.P. Mingos, "Insertion of CS₂ into the Group 2 metal-alkoxide of $[M(OR)_2]_n$ (M = Mg, Ca, Sr or Ba; R = Et or Prⁱ)"; crystal structures of $[Ca(S_2COPr^i)_2(Pr^iOH)_3] \cdot 2Pr^iOH$ and $[Ba(S_2COEt)_2]$, *Journal of the Chemical Society Dalton Transactions*, 1998, 2671-2677.

366 I.K. Bezougli, A. Bashall, M. McPartlin, D.M.P. Mingos, "Carbonyl Sulfide Insertion into Group 2 Metal-isopropoxide Bnds; sThesis and Cystal Structures of $Mg(OSCOPr^i)_2(Pr^iOH)_4$] $\cdot 2Pr^iOH$ and $[Sr(OCSOPr^i)_2]_n$ "; *Journal of the Chemical Society Dalton Transactions*, 1998, 2665-2669.

367 D.M. Michaelidou, D.M.P. Mingos, D.J. Williams and A.J.P. White, "New thiophene metallacarborane compounds of palladium and platinum: X-ray structures of 1-C₄H₃S-3-(cod)-3,1,2-M-C₂B₉H₁₀, 1-C₄H₃S-3,3-(PMe₂Ph)₂-3,1,2-Pt-C₂B₉H₁₀ and 1-C₄H₃S-3,3-(PPh₂CH₂CH₂Ph)₂-3,1,2-Pd-C₂B₉H₁₀ (M = Pt or Pd)¹"; *J. Orgmetal. Chem.*, 1998, **562**, 105-114.

368 I. Baxter, S. R. Drake, M. B. Hursthouse, J. McAleese, K. M. A. Malik, D. M. P. Mingos, D. J. Otway and J. C. Plakatouras, "Unusual coordination modes of multidentate ligands; crystal structure of $[{(tmhd)_3Y}_2(hmteta)]$ [tmhd = Bu^tCOCHCOBu^t and hmteta = Me₂N(CH₂CH₂NMe)₂CH₂CH₂NMe₂]", *Polyhedron*, 1998, **17**, 3777-3784.

369 I. Baxter, J. A. Darr, M. B. Hursthouse, K. M. A. Malik, D. M. P. Mingos and J. C. Plakatouras, "Preparation and crystal structures of the Ce(IV) β-diketonates, $[Ce(tmhd)_4]$ and $[Ce(pmhd)_4]$ (tmhd = 2,2,6,6-tetramethylheptane-3,5-dionate and pmhd = 1-phenyl-5-methylhexane-1,3-dionate)", *J. Chemical Crystallography*, 1998, **28**, 267-276.

370 S. L. James, D. M. P. Mingos, A. J. P. White and D. J. Williams, "Anion-templated formation of a unique inorganic 'super-adamantoid' cage $[Ag_6(triphos)_4(O_3SCF_3)_4]^{2+}$ {triphos = (PPh₂CH₂)₃CMe]", *J. Chem. Soc. Chem. Commun.*, 1998, 2323-2324.

371. D.M.P. Mingos, "Essentials of Inorganic Chemistry 2", Oxford University Press, Oxford, 1998, (92 pages), ISBN 0 19 855918 6 (Pbk).

1999

372 D. M. P. Mingos, Editor, "*Liquid Crystals I*", *Structure and Bonding*, **95**, 1999, 1-268. Springer-Verlag, Berlin, ISBN 3-540-64936-0

373 D. M. P. Mingos, Editor, "*Liquid Crystals II*", *Structure and Bonding*, **95**, 1999, 1-276. Springer-Verlag, Berlin, ISBN 3-540-64937-9

374 P. J. Dyson and D. M. P. Mingos, "Homonuclear clusters and colloids of gold: synthesis, reactivity, structural and theoretical considerations", in *Gold: Progress in Chemistry, Biochemistry and Technology*, eds. Hubert Schmidbaur, John Wiley & Sons Ltd., 1999, 511-556.

375 R. Vilar, D. M. P. Mingos, A. J. P. White and D. J. Williams, "Aufbau synthesis of a mixed-metal anion receptor cage", *J.C.S. Chemical Communications*, 1999, 229-230.

376 A.S. Georgopoulou, S. Ulvenlund, D.M.P. Mingos, I. Baxter and D.J. Williams, "Synthesis of water soluble DTPA complexes with pendant uracil moieties capable of forming complementary hydrogen bonds", *Journal of Chemical Society Dalton Transactions*, 1999, 547-551.

- 377 A.D.Burrows, N. Choi, M. McPartlin, D.M.P. Mingos, S.V. Tarlton & R. Vilar, *J. Organomet. Chem.*, 1999, **573**, 313-322.
- 378 S.V. Tarlton, N. Choi, M. McPartlin, D.M.P. Mingos & R. Vilar, *Journal of the Chemical Society Dalton Transactions*, 1999, 653-654.
- 379 X. Zhang, D.O. Hayward and D.M.P. Mingos, "Apparent equilibrium shifts and hot-spot formation for catalytic reactions induced by microwave dielectric heating", *J.Chem.Soc. Chem. Commun.*, 1999,975-6
380. S. Arifhodzic-Radojevic, A.D. Burrows, N. Choi, M. McPartlin, D.M.P. Mingos, S.V. Tarlton and R. Vilar, "Reactivity of palladium dimer $[Pd_2(SO_2)(dba)(PBz_3)_2]$ ", *Journal of the Chemical Society Dalton Transactions*, 1999, 3981-3988.
- 381 D. M. P. Mingos, Editor, "*Bonding and Charge Distribution in Polyoxometalates*", *Structure and Bonding*, **93**, 1999, 1-340. Springer-Verlag, Berlin, ISBN 3-540-64934-4
382. Special Issue of *Journal of Organometallic Chemistry*, "Dedicated to Professor Brian Johnson on the Occasion of his 60th Birthday in Recognition of his Outstanding Contributions to Organometallic and Inorganic Chemistry" Editors **D.M.P. Mingos**, P.Dyson, 1999, **573**, 1-338.
383. Special Issue of *Journal of Organometallic Chemistry* "Organometallic Chemistry with N and O Donor Ligands", Editors **D.M.P. Mingos**, P. L. Mountford, 1999, **591**, 1-222

2000

- 384 A. S. Georgopoulou, D. M. P. Mingos, A. J. P. White, D. J. Williams, B. R. Horrocks and A. Houlton , "Bifunctional Ferrocene Derivatives for Molecular Recognition of DNA Duplexes", *Journal of the Chemical Society Dalton Transactions*, 2000, 2969-2974..
385. V. Dura-Vila, D.M.P. Mingos, R. Vilar, A.J.P. White and D.J. Williams, "Insertion of O₂ into a Pd-Pd Dimer and subsequent C-O Bond Formation by Activation of a C-H Bond", *J.Chem.Soc. Chem. Commun.*, 2000, 1525-1526.
- 386 V. Dura-Vila, D.M.P. Mingos, R. Vilar, A.J.P. White and D.J. Williams, "Reactivity Studies of $[Pd_2X_2(PBu^t_3)_2]$ (X = Br or I) with CNR (R = 2,5-dimethylphenyl), H₂ and alkynes, *J. Organomet. Chem.*, 2000, **600**, 198-205.
- 387 M.A. Chowdhry, D.M.P. Mingos, A.J.P. White and D.J. Williams, "Crystal Structure and ¹⁵N NMR studies of 5-(2-pyridylmethylene)pseudothiohydantoin.....", *Journal of the Chemical Society Perkin Transactions*, 2000, 2265-2268.
- 388 M.A. Chowdhry, D.M.P. Mingos, A.J.P. White and D.J. Williams, "Synthesis and Characterisation of the 5-substituted Hydantoins and Thiazolines.....", *Journal of the Chemical Society Perkin Transactions 1*, 2000, 3495-3504.
- 389 D.M.P. Mingos and D.R. Baghurst, "Microwaves in Chemical Synthesis", published in **New Chemistry**, edited by Nina Hall, Cambridge University Press, Cambridge, UK, 2000, 67-75.
- 390 S.L. James, D.M.P. Mingos, X. Xu, A.J.P. White and D.J. Williams, "Platinum(II) Phosphine and Orotate Complexes with Amino-Pyridine Co-Ligands and Their Molecular Recognition via Hydrogen Bonding, ", Dalton Discussion 3, Inorganic Crystal Engineering, *Journal of the Chemical Society Dalton Transactions*, 2000, 3783-3790.
391. S.L. James, D.M.P. Mingos, X. Xu, "Measurement of Association Constants in Metal Orotate Complexes by ¹H NMR Spectroscopy - The Metal Substituent Effect on Triple Hydrogen Bonding", *Molecular Crystals and Liquid Crystals*, 2000, **342**, 15-27.

392. D. Rais, D.M.P. Mingos, R. Vilar, A.J.P. White and D.J. Williams, " π -Co-ordination of Silver and Copper to Mercury Bis(alkynyls) : Synthesis and Characterisation", *Organometallics*, 2000, **19**, 5209-5217.
393. A.G. Whittaker and D.M.P. Mingos, "Arcing and Other Microwave Characteristics of Metal Powders in Liquid Systems" *J. Chem. Soc. Dalton Transactions*, 2000, 1521-6.
394. Special Issue of *Journal of Organometallic Chemistry* "New Perspectives in Hydride Chemistry", Editors **D.M.P. Mingos**, G.J. Leigh, 2000, **609**, 1-210.
395. Special Issue of *Journal of Organometallic Chemistry* "Dedicated to Professor Martin Bennett", **D.M.P. Mingos**, E. Wenger, 2000, **607**, 1-296.
396. Special Issue of *Journal of Organometallic Chemistry* "Frontiers of Organometallic Chemistry Anniversary Volume", Editors **D.M.P. Mingos**, R.D. Adams, 2000, **600**, 10-211.
397. Special Issue of *Journal of Organometallic Chemistry*, "Organometallic Chemistry of Fullerenes", Edited with V.I. Sokolov, 2000, **599**, 1-114.
398. Special Issue of *Journal of Organometallic Chemistry*, "Dedicated to Professor Stanislaw Pasynkiewicz on the occasion of his 70th birthday", Edited with A. Pietrzykowski, 2000, **597**, 1-214.

2001

399. Xunli Zhang, D.O. Hayward, C. Lee and D.M.P. Mingos, "Microwave Assisted Reactions of Sulphur Dioxide with Methane over MoS₂ Catalyst", *Appl. Catal. B: Environ.*, 2001, **33**: 137
400. Xunli Zhang, D.O. Hayward and D.M.P. Mingos, "Rate Oscillations During Partial Oxidation of Methane Over Chromel-Alumel Thermocouples", *Applied Catalysis-Environmental*, 2001, **72**, 147-152
401. D.M.P. Mingos, *Modern Co-ordination Chemistry: The Legacy of Joseph Chatt*, Edited by G.J. Leigh and N. Winterton, Chemical Society, London "Some New Insights into the Steric Effects of Tertiary Phosphine Ligands via Data Mining.", 69 -78.
402. D.M.P. Mingos, *Introduction to Structure and Bonding*, 2001, **100**, " π -Electron magnetism from Molecules to Magnetic Materials", Volume Editor J. Veciana, Springer-Verlag, Berlin, ISBN 3-540-41680-3.
403. D.M.P. Mingos, R. Vilar and D. Rais "Recent Studies on Alkynyl Complexes of the Group 11 and 12 Metals", *J. Organometal. Chem.*, 2001,
404. D.M.P. Mingos, "A Historical Perspective on Dewar's Landmark Contribution to Organometallic Chemistry", *J. Organometal. Chem.*, 2001, **635**, 1-8
405. D.M. P. Mingos, R. Vilar, J. Yau, D Rais, A.J.P. White and David J. Williams, "Anion Templated Syntheses of Rhombohedral Silver-Alkynyl Cage Compounds", *Angew. Chemie Internat. Ed.*, 2001, **40**, 3464-3467.
406. Special Issue of *Journal of Organometallic Chemistry*, "Professor Oleg Nefedov's 70th Birthday Special Issue", 2001, 636, 1-181.
407. Special Issue of *Journal of Organometallic Chemistry*, "50th Anniversary of Dewar's Landmark Paper", Editors D.M.P. Mingos, G. Frenking, 2001, **635**, 1-221.

408. Special Issue of *Journal of Organometallic Chemistry*, "Organometallic Chemistry in Portugal - Alberto Dias' Influence", 2001, **632**, 1-234.

2002

409. F. Dahan, P.W. Dyer, M.J. Hanton, M. Jones, D.M.P. Mingos, A.J.P. White, D.J. Williams and A.M. Williamson, "Synthesis and Reactivity of the is(dialkylaminophosphanyl)amine, *European Journal of Chemistry*, 2002, 732-742.

410. Zhang, X., Hayward, D.O. and Mingos, D.M.P., Dielectric Properties of MoS₂ and Pt Catalysts "Effects of Temperature and Microwave Frequency", *Catal. Lett.*, 2002, **84**: 225-233.

411. Zhang, X., Hayward, D.O. and Mingos, D.M.P., Oscillatory Behaviour During the Partial Oxidation of Methane over Nickel Foils, *Catal. Lett.*, 2002, **83**: 149.

412. D.M.P. Mingos, R. Vilar and D. Rais, "Recent Studies on Alkynyl Complexes of the Group 11 and Group 12 Metals", *J. Organometal. Chem.*, 2002, **641**, 126.

413. D. Rais, D.M.P. Mingos, R. Vilar, A.J.P. White and D.J. Williams, "Directing Role of Anions in the Synthesis of Silver Alkynyl Cages and Silver Alkynyl Polymers", *J. Organometal. Chem.*, 2002, **652**, 87.

414. A.G. Whittaker and D.M.P. Mingos, "Synthetic Reactions using Metal Powders under Microwave Irradiation", *J. Chem. Soc. Dalton Transactions*, 2002, 3967-3970.

415. Special Issue of *Journal of Organometallic Chemistry*, "Advances in the Organometallic Chemistry of the Group 3 and Lanthanoid Elements", Editors **D.M.P. Mingos**, M.F. Lappert and W.J. Evans, 2002, **647**, 1-249.

416. Series Editor *Structure and Bonding*, Volume 101, "Non Oxide Ceramics 1", Volume Editor M. Jansen, 2002, ISBN 3 540 43131 4

417. Series Editor *Structure and Bonding*, Volume 102, "Non Oxide Ceramics 2", Volume Editor M. Jansen, 2002, ISBN 3 540 43132 2

418. Series Editor *Structure and Bonding*, Volume 103, "Group 13 Chemistry - Fundamental New Developments", Volume Editors H.W. Roesky and D.A. Atwood, 2002, ISBN 3 540 43615 4

419. Series Editor *Structure and Bonding*, Volume 104, "Group 13 Chemistry - Biological Aspects of Aluminum", Volume Editors H.W. Roesky and D.A. Atwood, 2002, ISBN 3 540 43807 6

2003

420. Zhang, X., Lee, C. S-M., Mingos, D.M.P. and Hayward, D.O., Oscillatory Behaviour during the Partial Oxidation of Methane over Cobalt Wires and Foils, *Appl. Catal. A: General*, 2003, **248**, 129-142.

421. Zhang, X., Hayward, D.O. and Mingos, Further Studies on Oscillations over Nickel Wires during the Partial Oxidation of Methane, *Catal. Lett.*, 2003, **86**, 235-243.

422. Zhang, X., Lee, C., Mingos, D.M.P. and Hayward, D.O., Oscillatory Behaviour during the Oxidation of Methane over Palladium Metal Catalysts, *Appl. Catal. A: General*, 2003, **240**, 183-197.

423. Zhang, X., Lee, C.S-M, Mingos, D.M.P. and Hayward, D.O., Oxidative Coupling of Methane Using Microwave Dielectric Heating, *Appl. Catal. A: General*, 2003, **249**, 151-164.
424. Zhang, X., Hayward, D.O. and Mingos, D.M.P., Carbon Dioxide Reforming of Methane with Pt Catalysts Using Microwave Dielectric Heating, *Catal. Lett.*, 2003, **88**, 129-139.
425. Zhang, X., Lee, C.S-M., Mingos, D.M.P. and Hayward, D.O., Effects of Microwave Dielectric Heating on Heterogeneous Catalysis, *Catal. Lett.*, 2003, **88**, 33-38.
426. A. M. Williamson, G. R. Owen, D. M. P. Mingos, R. Vilar, A. J. P. White, D. J. Williams "Synthesis and structural characterisation of the palladium cluster compounds $[\text{Pd}_3(\mu\text{-SO}_2)_2(\mu\text{-PPh}_2\text{py})_2(\text{PBz}_3)_2]$ and $[\text{Pd}_4(\mu\text{-SO}_2)_2(\mu^3\text{-S})(\text{CNR})(\text{PBz}_3)_4]$ (R = *t*Bu, 2,6-dimethylphenyl and cyclohexyl)", *J. Chem. Soc., Dalton Trans.*, 2003, 2526-2532.
427. Special Issue of *Journal of Organometallic Chemistry*, "Recent Developments in Metal Alkynyl Organometallic Chemistry", Edited with M.G. Humphrey, 2003, **670**, 1-262.
428. Special Issue of *Journal of Organometallic Chemistry*, "Frontiers in Boron Chemistry Dedicated to Professor M. Frederick Hawthorne on his 75th Birthday", Editors **D.M.P. Mingos**, T.B. Marder, 2003, **680**, 1-345.
429. Series Editor *Structure and Bonding*, Volume 105, "Group 13 Chemistry – Industrial Applications", Volume Editors H.W. Roesky and D.A. Atwood, 2002, ISBN 3 540 43615 4
430. Special Issue of *Journal of Organometallic Chemistry*, "Recent Developments in Reactivities of Metal Allyl and Alkyl Complexes", Editors **D.M.P. Mingos**, M. Bochmann, 2003, **683**, 1-266.

2004

431. Special Issue of *Journal of Organometallic Chemistry*, "Frontiers of Organometallic Chemistry", Editor **D.M.P. Mingos**, 2004, **689**, 1329-1435.
432. Special Issue of *Journal of Organometallic Chemistry*, "Atom Efficient Organic Syntheses" Editors **D.M.P. Mingos**, I. Beletskaya, 2004, **689**, 3639-3852.
433. . Special Issue of *Journal of Organometallic Chemistry*, "40th Anniversary Issue", Editors **D.M.P. Mingos**, R.D. Adams, G. Bertrand, W.A. Hermann, and K. Tatsumi, 2004, **689**, 3853-4646.
435. D.M.P. Mingos, "Complementary Spherical Electron Density Model and its Implications for the 18 Electron Rule", *Journal of Organometallic Chemistry*, 2004, **689**, 4420-4436.
436. Series Editor *Structure and Bonding*, Volume 106, "Optical Spectra and Chemical Bonding in Compounds I", Volume Editor, T. Schonherr, 2004, ISBN 3 540 00853-5.
437. Series Editor *Structure and Bonding*, Volume 107, "Optical Spectra and Chemical Bonding in Compounds II", Volume Editor, T. Schonherr, 2004, ISBN 3 540 00854-3.
438. Series Editor *Structure and Bonding*, Volume 108, "Supramolecular Assembly via Hydrogen Bonds I", Volume Editor, **D.M.P. Mingos**, 2004, ISBN 3 540 20084-3.
439. Series Editor *Structure and Bonding*, Volume 109, "Fullerene Based Materials", Volume Editor, K. Prassides, 2004, ISBN 3 540 20106-8.
440. Series Editor *Structure and Bonding*, Volume 110, "Applications of Evolutionary Computation in Chemistry" Volume Editor, R.L. Johnston, 2004, ISBN 3 540 40258-6.

441. Series Editor *Structure and Bonding*, Volume 111, "Supramolecular Assembly via Hydrogen Bonds II", Volume Editor, **D.M.P. Mingos**, 2004, ISBN 3 540 20086-x.
442. Series Editor *Structure and Bonding*, Volume 112, "Principles and Applications of Density Functional Theory in Inorganic Chemistry I", Volume Editors, N. Kaltsoyannis and J.E. McGrady, 2004, ISBN 3 540 21860-2.
443. Series Editor *Structure and Bonding*, Volume 113, "Principles and Applications of Density Functional Theory in Inorganic Chemistry II", Volume Editors, N. Kaltsoyannis and J.E. McGrady, 2004, ISBN 3 540 21861-0.
444. P.W. Dyer, J. Fawcett, M.J. Hanton, D.M.P. Mingos and A.M. Williamson, "The Oxidative Addition of chloro-phosphine to Pd⁰: Formation and Characterisation of a 42-Electron triangulo-Cluster", *J. Chem. Soc. Dalton Trans.*, 2004, 2400-2401.
445. D.M.P. Mingos, "Molecular Chemistry under Microwave Conditions", Proceedings 2004 Asian Seminar on Microwave or Radiofrequency Activation of Reactions of Organic Molecules or Polymer Chemistry, Takamatsu, Japan, 2004, 50-69.
446. D.M.P. Mingos, "Effect of Microwave Dielectric Heating on Heterogeneous Catalytic Processes", Microwave 2004, Takamatsu, 2004, 118-134.
447. D.M.P. Mingos, "Microwave Theory", Abstracts ESF PESC Exploratory Workshop, Microwave Chemistry and Specific Microwave Effects", Graz, Austria, 2004, 1.
448. P. Diaz, D.M.P. Mingos, R. Vilar, A.J.P. White and D.J. Williams, "Anion Templated Synthesis of Metallacages as a Means for the Calorimetric Detection of Chlorides", *Inorganic Chemistry*, 2004, **43**, 7597-7604.

2005

449. D.M.P. Mingos, "Theoretical Aspects of Microwave Dielectric Heating" published in Microwave Assisted Organic Synthesis, Ed. J.P. Tierney and P. Lidstrom, Blackwell Publishing, Oxford, 1-22, 2005, ISBN 1-4051-1560-2.
450. Series Editor *Structure and Bonding*, Volume 114, "Superconductivity in Complex Systems", Volume Editors, K.A. Muller and A. Bussmann-Holder, 2005, ISBN 3 540 23124-2.
451. Special Issue of *Journal of Organometallic Chemistry* "Nitrogen Ligands in Organometallic Chemistry and Homogeneous Catalysis", Edited **D.M.P. Mingos** and C. Pettinari, 2005, **690**, 1871-2157.
452. X. Zhang, C. S-M. Lee, D.O. Hayward and D.M.P. Mingos, "Oscillatory behaviour observed in the rate of oxidation of methane over metal catalysts", *Catalysis Today*, 2005, **105**, 283-294.
453. Series Editor *Structure and Bonding*, Volume 115, "Intermolecular Forces and Clusters 1", Volume Editor, D.J. Wales, 2005, ISBN 13 978-3-540-28194-8.
454. Series Editor *Structure and Bonding*, Volume 116, "Intermolecular Forces and Clusters 2", Volume Editor, D.J. Wales, 2005, ISBN 13 978-3-540-28191-7.
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2006

456. Series Editor *Structure and Bonding*, Volume 117, Magnetic Functions Beyond the Spin Hamiltonian”, Volume Editor, **D.M.P. Mingos**, 2005, ISBN 13 978-3-540-.
457. Series Editor *Structure and Bonding*, Volume 119, “Layered Double Oxides”, Volume Editors, X. Duan and DG. Evans, 2006, ISBN 13 978-3-540-28279-2.
458. Series Editor *Structure and Bonding*, Volume 120, “Recent Developments in Mercury Science”, Volume Editors, D.A. Atwood, 2006, ISBN 13 978-3-540-31254-3.
- 459 Series Editor *Structure and Bonding*, Volume 121, “Non-Covalent Multi-Porphyrin Assemblies”, Volume Editors, E. Alessio, 2006, ISBN 13 978-3-540-32542-0.
460. D.M.P. Mingos, “The relevance of the complementary spherical electron density model to organometallic intermediates involved in homogenous catalysis”, *J. Organometallic Chemistry*, 2006, 691, 3165-3175.

2007

461. G. Balazs, J.C. Green and D.M.P. Mingos; “ Electronic structure of linearly coordinated EQ complexes of the type [(N₃N)W(EQ)] [N₃N = N(CH₂CH₂NSiMe₃)₃; E = P, As, Sb, Bi; Q = O, S, Se, Te]: a DFT study “, *European Journal of Inorganic Chemistry*, 2007, **17**, 2443-2453.
462. Series Editor *Structure and Bonding*, Volume 123, “Photofunctional Transition Metal Complexes”, Volume Editor V.W.W. Yam, 2007, ISBN 13 978-3-540-36809-0.
463. Series Editor *Structure and Bonding*, Volume 124, “Ferro- and Antiferroelectricity”, Volume Editors N.S. Dalal and A. Bussmann-Holder, 2007, ISBN 13 978-3-540-49602-1
464. Series Editor *Structure and Bonding*, Volume 125, “High Energy Density Materials”, Volume Editor T.M. Klapothke, 2007, ISBN 13 978-3-540- 72201-4.
465. “Comprehensive Organometallic Chemistry”, Volumes 1-12, R.H. Crabtree and **D.M.P.Mingos** Editors in Chief, 2007, Elsevier Ltd., Kidlington, Oxford, UK ISBN 13 978-0-0-0804-4590-8

2008

466. Y. Xu, D.M.P. Mingos and J.M. Brown; “ Crabtree's catalyst revisited; Ligand effects on stability and durability”, *Chemical Communications*, 2008,(2), 199-201.
467. Series Editor *Structure and Bonding*, Volume 126, “Halogen Bonding”, Volume Editors P. Metrangola and G. Resnati, 2008, ISBN 13 978-3-540-74329-3.
468. Series Editor *Structure and Bonding*, Volume 127, “Organometallic and Coordination Chemistry of the Actinides”, Volume Editor T.E. Albrecht-Schmitt, 2008., ISBN 13 978-3-540-77836-3.
469. Series Editor *Structure and Bonding*, Volume 128, “Liquid Crystalline Functional Assemblies and Their Supramolecular Structures”, Volume Editor T. Kato, 2008., ISBN 978-3-540-77860-0.
470. Series Editor *Structure and Bonding*, Volume 129, “Recognition of Anions”, Volume Editor R. Vilar , 2008, ISBN 978-3-540-79091-4.
- 471, Series Editor *Structure and Bonding*, Volume 130, “Contemporary Metal Boron Chemistry”, Volume Editors T.B. Marder and Z. Lin, 2008, ISBN 978-3-540-78633-7.

2009

472. Y. Xu; M.A. Celik, A.L. Thompson, H. Cai, M. Yurtsever, B. Odell, J.C. Green, D.M.P. Mingos and J.M. Brown; " Tetrameric Iridium Hydride-rich Clusters formed under Hydrogenation Conditions", *Angewandte Chemie, International Edition*, 2009, **48**(3), 582-585.

473. Series Editor *Structure and Bonding*, Volume 131, "Molecular Thermodynamics of Complex Systems", Volume Editor X. Lu and Y. Hu , 2009., ISBN 978-3-540-69114-3.

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475. Series Editor *Structure and Bonding*, Volume 133, "Controlled Assembly and Modification of Inorganic Systems", Volume Editor Xin-Tao Wu, 2009., ISBN 13 978-3-642-01561-8.

2010

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2011

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2012

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485. Series Editor *Structure and Bonding*, Volume 143, "Molecular Electronic Structures of Transition Metal Complexes II", Volume Editors **D.M.P. Mingos**, P. Day, J.P. Dahl, 2012, ISBN 13 978-3-642-27377-3

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487. Series Editor *Structure and Bonding*, Volume 145, "Structure-Property Relationships in Non-Linear Optical Crystals I –The IR-Vis Region", Volume Editors Xin-Tao Wu, Ling Chen, 2012, ISBN 13 978-3-642-29620-8

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2013

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2014

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499. Series Editor *Structure and Bonding*, Volume 154, "Nitrosyl Complexes in Inorganic Chemistry, Biochemistry and Medicine II", Volume Editor D.M.P. Mingos, 2014, ISBN 13 978-3-642-41159-1

500. D.M.P. Mingos, Historical Introduction to Nitrosyl Complexes, **Struct. Bond.**, 2014, **153**, 1-42

501. D.M.P. Mingos, Ambivalent Lewis Acids/Bases with Symmetry Signatures and Isolobal Analogies, **Struct. Bond.** 2014, **154**, 1-52.

502. D. Michael P. Mingos, A Review of Complexes of Ambivalent and Ambiphilic Lewis acid/bases with Symmetry Signatures and An Alternative Notation for these Non-Innocent Ligands; (JOM18233) Final version published online: 14-JAN-2014

Journal of Organometallic Chemistry (2014),751:153-173; DOI information: 10.1016/j.jorgchem.2013.08.033

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510. Series Editor *Structure and Bonding*, Volume 162, "Gold Clusters, Colloids and Nanoparticles II", Volume Editor D.M.P. Mingos, 2014, ISBN in press

511. D.M.P. Mingos, A Historical Introduction to Gold Clusters and Colloids, *Struct. Bond.* 2014, 161, 1-52.

512. D.M.P. Mingos, Structural and Bonding Issues in Clusters and Nano-Clusters , *Struct. Bond.* 2014, 162, 1-52.

513. R. Frank, J. Howell, R. Tirfoin, D. Dange, C. Jones, D.M.P. Mingos, S. Aldridge, Circumventing Redox Chemistry: Synthesis of Transition Metal Boryl Complexes from a Boryl Nucleophile by Decarbonylation 'Journal of the American Chemical Society',2014, 136(44), 15730-15741

2015

514. D.M.P. Mingos, A Theoretical Analysis of Ambivalent and Ambiphilic Lewis Acids/Bases with Symmetry Signatures, (Keynote Lecture 45th ICCS Singapore July 2014, *Coordination Chemistry Reviews* (2015), 293-294, 2-18

515. Frank, Rene; Howell, James; Campos, Jesus; Tirfoin, Remi; Phillips, Nicholas; Zahn, Stefan; Mingos, D. Michael P.; Aldridge, Simon, Cobalt Boryl Complexes: Enabling and Exploiting Migratory Insertion in Base-Metal-Mediated Borylation , *Angewandte Chemie, International Edition* (2015),.

516. D.M.P. Mingos, Structural and Bonding Patterns in Gold Clusters, *Dalton Transactions*, (2015),44(15), 6680-6695.

517. D.M.P. Mingos, A Theoretical Analysis of Ambivalent and Ambiphilic Lewis acid/bases with Symmetry Signatures, *Coordination Chemistry Reviews*,(2015), 293-294, 2-19.

518. D.M.P. Mingos, Series Editor, Editor P. Cheng, Lanthanide Metal-Organic frameworks, Structure and Bonding, 2016, 163, 1-371.

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2016

521. D.M.P. Mingos, Series Editor, Editors D. Yan and M. Wei, Photofunctional Layered Materials, Structure and Bonding 2016, 166, 1-242. ISBN 13 978-3-319-07847-2

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526. D.M.P. Mingos, Editor, The Chemical Bond - 100 Years Old and Getting Stronger III, Structure and Bonding, 2016, 171, 1-240. ISBN 978-3-319-35146-9

527. D.M.P. Mingos, Editor, 50th Anniversary Issue, Structure and Bonding, 172, 2016, 1-357. ISBN 978-3-319-35138-4.

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2017

530. D.M.P. Mingos, Series Editor, Editor Zhiping Zheng, Recent Developments in Clusters of Rare Earths and Actinides: Chemistry and Materials, Structure and Bonding, 2017, 173, 1-335. ISBN 978-3-662-53303-1.

531. D.M.P. Mingos, Series Editor, Editor Stefanie Dehnen, Clusters – Contemporary Insight in Structure and Bonding, Structure and Bonding, 2017, 174, 1-379. ISBN 978-3-319-52296-8.