## COORDINATION CHEMISTRY REVIEWS

CUMULATIVE SUBJECT INDEX

VOLUMBS 51-100

A2[FeX5(H20)] series of antiferromagnets, 65, 141

Acetylacetonato complexes of tervalent metal ions in solution, reactivity and reaction mechanism of, 100, 427

Acids and bases, hard and soft - the evolution of a chemical concept, 100, 403

Actinides and lanthanides, complexes of groups 3,4, containing neutral phosphorus donor ligands, 99, 137

Affinity labeling, of electron transfer proteins by transition metal coordination. Structure-reactivity studies of blue copper proteins, 94, 17 Ag(II) as an oxidant, mechanistic aspects of reactions involving, 54, 131 Alcohols, fluorinated, and their metal complexes, 88, 69 Alkali and alkaline earth cations, comprehensive coordination chemistry of

alkali and alkaline earth cations with macrocyclic multidentates: Latest position, 87, 55

Alkali metals, 56, 1; 66, 1; 75, 1; 85, 1

Alkaline earth metals, 56, 78; 66, 93; 75, 100; 85, 86

 $\mu(\alpha, \omega)$ -Alkanediyl complexes of transition metals, 60, 171

Alkane photodehydrogenation, 97, 179

Alkanes: homogeneous solutions for reactive sp<sup>3</sup> C-H bonds, coordination chemistry with, 74, 101

Alkoxo derivatives of platinum metals, 68, 101

Alkyl tin(IV) halide complexes, ligand influence in, 93 No. 2, 185

Alkylcobalamins with platinum complexes, reactions of, 68, 131

Aikylcobalt tetracarbonyls and their derivatives, 59, 203

Aluminum, 56, 150; 66, 153; 75, 166; 85, 158

Aluminum halides: review of their structural properties and methods of analysis, coordination compounds of, 74, 1

Amalgams, influence of complex formation and solvation on the electrode reactions of some metal ions at amalgams in aprotic solvents, 88, 203 Amides, of the platinum metals, 95 No. 1, 1

Amino acids, peptides and related ligands, complex formation between palladium(II) and, 61, 97

Amine complexes, photoisomerization of rhodium(III), 64, 343

Aminopolycarboxylate edta-type and related ligands, optical activity of cobalt(III), chromium(III) and rhodium(III) complexes with, 54, 159

Anation reactions, of cobalt(III) complexes, 91, 1

Angular overlap model for the description of the paramagnetic properties of transition metal complexes, the, 60, 131

Anion radicals, the transition metal coordination chemistry of, 76, 187

Aniono complexes, in aqueous solutions, problems concerning the determination of small stability constants of, 94, 1

Antiferromagnets, the A<sub>2</sub>[FeX<sub>5</sub>(H<sub>2</sub>O)] series of, 65, 141

Antimony, 56, 358; 66, 379; 75, 392; 85, 390

Aprotic solvents, influence of complex formation and solvation on the electrode reactions of some metal ions at amalgams in aprotic solvents, 88, 203

Aqueous chemistry of peroxydisulfate ion. VII. The free radical induced chain hydrogenation, 51, 243

Aromatic Compounds, efficiencies of electron transfer reactions in the quenching of excited rhodium(I) compounds by, 64, 311

Arsenic, 56, 349; 66, 371; 75, 383; 85, 380

Arsines and some related ligands, coordination chemistry of organomercury(II) involving phenanthroline, bipyridines, tertiary phosphines, 63, 161

Artificial P-450 systems, reductive dioxygen activation by use of, 86, 1

Arylgold chemistry, recent developments in, 76, 1

Bases and acids, soft and hard - the evolution of a chemical concept, 100, 403
Basolo, Fred, Interview, 89, 3

Beta-Dicarbonyl compounds in metal complexes, variety in the coordination modes of, 70, 51

Biheteroaromatic ligands, N,N'-chelating: a survey, 93 No. 2, 205

Binuclear d8 complexes, photochemistry of, 100, 169

Binuclear iron site in hemerythrin, coordination chemiatry of, 79, No. 3, 195

Biochemistry and chemistry, high pressure (Book Review) 81, 237

Bioinorganic applications of magnetic circular dichroism spectroscopy: copper,

rare-earth ions, cobalt and non-heme iron systems, 60, 1

Bioinorganic chemistry: its conceptual evolution, 100, 573

Bicinorganic chemistry, missing information in, 79, No. 3, 175

Bipyridines, tertiary phosphines/arsines and some related ligands, coordination chemistry of organomercury(II) involving phenonthrolines, 63, 161

8ipyridine; tris (2,2'-bipyridine)cobalt(I), reduction of carbon dioxide, 64, 247

Bipyridine complexes:  $M(bpy)_3$  (M = Pe, Ru, Os),  $Cr(bpy)_3$ , electronic spectroscopy and related compounds, 64, 21

Bisdiphenylphosphinomethane, in dinuclear complexes, 86, 191

Bis(fulvalene), photochemistry of electron donor-acceptor complexes of, dicobalt mono- and dications. 64, 273

Bismuth, 56, 358; 66, 389; 75, 402; 85, 401

Blue copper proteins, structure-reactivity studies of. Affinity labeling of electron transfer proteins by transition metal coordination, 94, 17

Boron, 56, 114; 66, 120; 75, 129; 85, 122

Cadmium and Zinc (Transition Metal Chemistry Review 1981, 1982, 1983, 1984, 1985) 52, 1; 58, 1; 62, 1; 78, 125; 98, 279

Carbamate complexes, monothio- and monoseleno-, 54, 99

Carbene complexes, structural consequences of bonding in transition metal, 55, 261

Carbon, 56, 187; 66, 190; 75, 200; 85, 193

Carbon dioxide by tris(2,2'-bipyridine)cobalt(I), reduction of, 64, 247

Carbon dioxide, electrochemical reduction of, mediated by molecular catalysts,

93 No. 2, 245

Carbon dioxide, homogeneous-catalytic reactions with unsaturated substrates, reversible CO<sub>2</sub>-carriers and transcarboxylation reactions, 79, Nos. 1-2, 135 Carbonyl and related complexes, a possible mechanism for the reactions of electrophiles with polynuclear transition metal, 51, 41

Carbonyl complexes, reagent and catalyst induced substitution reactions of metal, 53, 227

Carbonyl radicals and radical reactions of cobalt carbonyls, cobalt, 53, 37

Carbonyl dimers, photochemical disproportionation of metal-metal bonded, 63,

217

Carbonyls under mild conditions, some reactions of ruthenium cluster, 76, 1

Catalysed aquation of transition metal complexes, metal-ion, 60, 145

Catalyst induced substitution reactions of metal carbonyl complexes, reagent and, 53, 227

113Cd NMR spectroscopy, of coordination compounds and proteins, 86, 43
C-H Activation, 97, 179

Chelate effect: the binding of bidentate phosphine and arsine chelates in square-planar transition metal complexes, an investigation of the 55, 31 Chelate rings, inorganic (carbon-free), 74, 127

Chelates and lanthanide ions in solution, quenching of excited states by, 99, 55

Chelating resins and ion exchangers, coordination chemistry of, 59, 1

Chemistry and Biochemistry, high pressure (Book Review) 81, 237

Chemotherapy, cancer, organotin compounds and, 95 No. 1, 109

Chromium (Transition Metal Chemistry Review 1981, 1982, 1983, 1985) 57, 189;

58, 245; 62, 85; 78, 1; 90, 1

Chromium(III), 97, 65, 299

Chromium(0), 97, 155

Chromium(III) and rhodium(III) complexes with aminocarboxylate edta-type and related ligands, optical activity of cobalt(III), 54, 159

Chromium(III) and other octahedral metal complexes, mechanism of thermal and photochemical ligand substitution reaction of, 94, 109

Chromium(III) oligomers, hydroxo-bridged. Danish investigations during the last two decades, 94, 47

Chromium(V) coordination chemistry, 61, 241

Chromium, molybdenum and tungsten compounds, the nuclear magnetic resonance properties of, 68, 169

Cisplatin, the chemical and biochemical consequences of the binding of the

antitumour drug cisplatin and other platinum group metal complexes to, 95 No. 2, 129

Classification and analysis of gold compounds on the basis of their X-ray structural and Mossbauer spectroscopic data, 70, 157

Classification of crystallographic data, mixed valence copper(I)-copper(II): analysis and, 83, 1

Cluster-centered transitions, 97, 35

Cluster complexes containing opened transition metal polyhedra, 69, 127

Cluster electrochemistry, progress in, 83, 169

Cluster ruthenium carbonyls, reactions under mild conditions, 76, 1

Cobaloximes, organocobalt  $B_{12}$  models: axial ligand effects on the structural and coordination chemistry of cobaloximes, 63, 1

Cobalt(I), 97, 141

Cobalt(I) complexes, photogeneration and reactions of, 64, 321

Cobalt(II) and mickel(II) thiocyanate systems: a spectrophotometric study, 100, 105

Cobalt(II) catalysts, utilization of  $\mathbf{0}_2$  for the specific oxidation of organic substrates with, 79, No. 3, 321

Cobalt(III), chromium(III) and rhodium(III) complexes with aminopolycarboxylate edta-type and related ligands, optical activity of, 54, 159

Cobalt(III) complexes, anation reactions of, 91, 1

Cobalt carbonyl radicals and radical reactions of cobalt carbonyls, 53, 37

Cobalt carbonyls, cobalt carbonyl radicals and radical reactions of, 53, 37

Cobalt (Transition Metal Chemistry Review 1981, 1982, 1985, 1984) 57, 1; 71,

37; 90, 111; 98, 123

Coenzyme  $B_{12}$ -dependent diol dehydratase stereochemical and model studies: the bound radical mechanism, towards the unification of, 54, 1

Colloidal metal and semiconductor dispersions and photodecomposition of water, interfacial electron transfer in, 69, 57

Compartmental ligands, synthesis, structure and electrochemical characterization of home- and heterodinuclear copper complexes with, 77, 165

Complex formation between palladium(II) and amino acids, peptides and related ligands, 61, 97

Complex multicomponent systems, the determination of thermodynamic equilibria in: potentiometry revisited, 100, 323

Complexes of 99mTc, Medical Diagnostic Imaging with, 78, 253

Complexes of groups 3,4, the lanthanides and the actinides containing neutral phosphorus donor ligands, 99, 137

Complexes of heterocyclic thione donors, 61, 115

Complexes-Thiclato of the transition metals, 76, 121

Composés de coordination des halogénures d'aluminum: mise au point sur leurs propriétés structurales et les méthodes d'analyses, 74, 1

Cooperative optical effects in solid state coordination chemistry, 100, 155
Coordination and inclusion chemistry, including the coordination template
effect, structural analysis of the factors associated with molecular
organization in. Molecular organization, portal to supramolecular chemistry,
100, 119

Coordination and redox chemistry of some macromolecular systems, 53, 55

Coordination chemistry, comprehensive, of alkali and alkaline earth cations

with macrocylic multidentates: latest position, 87, 1

Coordination chemistry in linear thermodynamic function relationships, 79, No. 3, 257

Coordination chemistry in two dimensions: chemically modified electrodes, 86,

Coordination chemistry of chelating resins and ion exchangers, 59, 1 Coordination chemistry of halocarbons, 99, 89

Coordination chemistry of organomercury(II) involving phenanthrolines, bipyridines, tertiary phosphines/arsines and some related ligands, 63, 161 Coordination chemistry of platinum anticancer drugs and related compounds with DNA, 100, 293

Coordination chemistry of secondary phosphine chalcogenides and their conjugate bases, 60, 67

Coordination chemistry with alkanes: homogeneous solutions for reactive sp3 C-H bonds, 74, 101

Coordination compounds containing sugars and their derivatives, 92, 113

Coordination compounds, some special aspects of the stereochemistry of, 100, 1

Copper(I), 97, 36

Copper(I)-copper(II) compounds, mixed-valence, analysis and classification of crystallographic data, 83,1

Copper(II) complexes, with N,N'-bis(alkylaminoalkyl)oxamides and related ligands, 92, 85

Copper complexes, exciplex quenching of photo-excited, 64, 83

Copper complexes with compartmental ligands, synthesis, structure and electrochemical characterization of homo- and heterodinuclear, 77, 165

Copper-molybdenum antagonism, synthetic aspects of Cu-Mo-S systems and their possible relevance to 59, 239

Copper and silver, in their higher oxidation states, the chemistry of, 76, 45 Copper (Transition Metal Chemistry Review 1981, 1982) 52, 87; 58, 169 Crowded molecules, ligand interactions in, 79, No. 3, 229

Crystal field aspects of the vibrational spectra of metal complexes, 55, 113
Crystallographic data, titanium organometallic compounds: analysis and
classification, 74, 53

Cu<sub>2</sub>Zn<sub>2</sub>SOD, spectroscopic studies on, a continuous advancement on investigation tools, 100, 67

Cumulative author index, 51, 269

Cumulative subject index, 51, 285

Cyclometalated complexes, of 8-methylquinoline and derivatives with the platinum metals, 93 No. 2, 155

Delocalization and stabilization, mixed-valence molecules: electronic, 60, 107
Dialkyldithiophosphate derivatives of non-transition elements, 55, 207
Bimanganese and dirhenium decacarbonyls, laser photolysis study on the photosubstitution in, 64, 1

Dimeric copper(II) complexes, factors affecting the magnetic properties of, 92,

45

Dinitrogen activation on transition metal complexes, geometric and electronic factors of, 55, 55

Dinuclear complexes, bisdiphenylphosphinomethane in, 86, 191

Diol dehydratase stereochemical and model studies: the bound radical mechanism, towards the unification of coenzyme  $B_{12}$ -dependent, 54, 1 Diolefin donor ligand, organometallic intramolecular-coordination compounds containing a, 51, 1

Dioxygen adducts of metal chelate compounds, vibrational spectra of, 100, 363

Dioxygen-iron(II) poryphorins, stability properties of, an overview from simple complexes to myoglobin, 83, 73

Dipole-forbidden energy transfer process in solution, 64, 293

Distance dependence of electron transfer rates, 64, 135

Dithiocarbamates, electrochemistry and redox behaviour of transition metal, 54,

DNA, the chemical and biochemical consequences of the binding of the antitumour drug cisplatin and other platinum group metal complexes to, 95 No. 2, 129 DNA, platinum anticancer drugs and related compounds with, the coordination chemistry of, 100, 293

Bonor-acceptor complexes of bis(fulvalene) dicobalt mono- and dications, photochemistry of electron, 64, 273

Dynamic stereochemistry of sulphur and selenium complexes of platinum, NMR studies of the, 96, 1

Early transition metals, mixed-valence compounds of, 96, 89

Electrochemical characterization, synthesis and structure of homo- and heterodinuclear copper complexes with compartmental ligands, 77, 165

Electrochemical reactions, of metal complex catalysis, 99, 15

Electrochemical reduction, of carbon dioxide mediated by molecular catalysts.

93 No. 2, 245

Electrochemical studies, of ruthenium compounds. Part I. Ligand oxidation levels, 95 No. 2, 239

Electrochemistry and redox behaviour of transition metal dithiocarbamates, 54, 23

Electrochemistry, cluster, progress in. 83, 169

Electrochemistry of metal-sulfur clusters: stereochemical consequences of thermodynamically characterized redox changes. Part I. Homometal clusters, 83, 199. Part II. Heterometal clusters, 87, 1.

Electron organometallic complexes, nineteen, 97, 119

Electron transfer at fixed and known distance within protein complexes, long range, 64, 125

Electron transfer proteins, affinity labeling of, by transition metal coordination. Structure-reactivity studies of blue copper proteins, 94, 17 Electron transfer, quantum mechanical effects in inorganic and bioinorganic. 68, 1

Electron transfer rates, distance dependence of, 64, 135

Electron transfer reactions in the quenching of excited rhodium(I) compounds by, aromatic compounds, efficiencies of, 64,311

Electron-transfer reactions involving simple free radicals, 51, 155
d-Electrons in transition metal chemistry: a new emphasis, the roles of, 99,

Electronic delocalization and stabilization, mixed-valence molecules, 60, 107

Electronic and geometric factors of dinitrogen activation on transition metal complexes, 55, 55

Electronic spectra from preresonance Raman spectra, and excited state bonding changes, calculation of, 64, 93

Electronic spectroscopy,  $M(bpy)_3(M = Fe. Ru, Os)$ ,  $Cr(bpy)_3$ , electronic spectroscopy and related compounds, 84, 21

Electronic transitions, sharp line, and metal-ligand angular geometry, 70, 85

Elements of Group 1 (Main Group Chemistry Review 1982, 1983, 1984, 1985) 56. 1; 68, 1; 75. 1; 85, 1

Elements of Group 2 (Main Group Chemistry Review 1982, 1983, 1984, 1985) 56,

78: 66, 93: 75, 100: 85, 86

Elements of Group 3 (Main Group Chemistry Review 1982, 1983, 1984, 1985) 56, 113; 66, 119; 75, 128; 85, 121

Elements of Group 4 (Main Group Chemistry Review 1982, 1983, 1984, 1985) 56, 187; 66, 190; 75, 200; 65, 193

Elements of Group 5 (Main Group Chemistry Review 1982, 1983, 1984, 1985) 56, 269: 66, 290: 75, 297: 85, 289

Elements of Group 6 (Main Group Chemistry Review 1982, 1983, 1984, 1985) 56, 390; 66, 412; 75, 423; 85, 424

Energy transfer process in solution, dipole-forbidden, 64, 293

Exchange-coupled, optical spectroscopy of exchange-coupled transition metal complexes, 88, 69

Exciplex quenching of photo-excited copper complexes, 64, 83

Excited state bonding changes and electronic spectra from preresonance Raman spectra, calculation of, 64, 93

Excited states, quenching of, by lanthanide ions and chelates in solution.

99, 55

Ferromagnetic interactions in polynuclear metal complexes, intramolecular, 69, 1

Fluorinated alcohols, and their metal complexes, 88, 133

Fourier transform ion cyclotron resonance mass spectrometry, application of, in coordination chemistry, 93 No. 1, 59

Gallium, 56, 163; 66, 167; 75, 176; 85, 169

Geometric and electronic factors of dimitrogen activation on transiton metal complexes, 55. 55

Germanium, 56, 189; 66, 200; 75, 210, 259; 85, 208

Gold compounds on the basis of their X-ray structural and Mossbauer spectroscopic data, classification and analysis of, 70, 157

Gold (Transition Metal Chemistry Review 1981) 67, 311

Group 14 element carbene analogues in transition metal chemistry, the role of, 100, 267

Hafnium and Zirconium, (Transition Metal Chemistry Review 1981, 1982, 1983) 52, 285; 71, 113; 80, 131

Halocarbons, coordination chemistry of, 99, 89

Halogens, 56, 448; 66, 488; 75, 505; 85, 504

Halogens and Hydrogen (Main Group Chemistry Review 1982, 1983, 1984, 1985) 56, 448: 66, 488; 75, 505; 85, 504

Hard and soft acids and bases - the evolution of a chemical concept, 100, 403

Heme proteins, comparison of the electronic and vibrational spectra of

complexes of protoporphyrin-IX, hemeoctapeptide, and heme proteins, 84, 1

Hemeoctapeptide, comparison of the electronic and vibrational spectra of

complexes of protoporphyrin-IX, hemeoctapeptide, and heme proteins, 84, 1

Hemerythrin, the coordination chemistry of the binuclear iron site in, 79, No.

3, 195

Hemoproteins, structure and properties of metalloporphyrins and hemoproteins: the vibronic approach, 88, 1

Heterobimetailics, early-late, 95 No. 1, 41

Heterocyclic thione donors, complexes of, 61, 115

Heterometal clusters, electrochemistry of metal-sulfur clusters: stereochemical consequences of thermodynamically characterized redox changes. Part II. Heterometal clusters, 87, 1

High pressure kinetic techniques, application of, to mechanistic studies in coordination chemistry, 93 No. 1, 19

Historical development, photochemistry of coordination compounds, 97, 313

Homogeneous-catalytic reactions of carbon dioxide with unsaturated substrates, reversible CO<sub>2</sub>-carriers and transcarboxylation reactions, 79, Nos. 1-2, 135

Homogeneous catalysis, platinum carbonyls and their use in, 55, 161

Komogeneously catalyzed reactions, organofridium complexes as models for, 83, 93

Homometal clusters, electrochemistry of metal-sulfur clusters: stereochemical consequences of thermodynamically characterized redox changes. Part 1, 83, 199 Host-guest interactions, 97, 209, 225

Hydrido complexes, polynuclear iridium, 96, 49

Hydrogenase and its application for photoinduced hydrogen evolution, 68, 53

Hydrogen, 56, 461; 66, 500; 75, 514; 85, 515

Hydrogen evolution, hydrogenase and its application for photoinduced, 68, 53

Hydrolysis of nucleoside 5'-triphosphates (NTPs), metal ion promoted,

mechanistic aspects of, 100, 453

Hydroxo-bridged chromium(III) oligomers. Danish investigations during the last two decades, 94, 47

Hydroxyoxime complexes, transition metal, 59, 141

In memoriam: Wayne Keith Wilmarth, 51, 101

Inclusion and coordination chemistry, including the coordination template effect, structural analysis of the factors associated with molecular organization in. Molecular organization, portal to supramolecular chemistry, 100, 119

Indium, 58, 168; 68, 171; 75, 180; 85, 173

Inorganic (carbon-free) chelate rings, 74, 127

Inorganic Chemistry, nuclear quadrupole resonance in. (Special Issue), 82, 9

Inorganic Reactions and Methods (Book Review), (Vol. 1), (Vol. 15), 81, 227,

231

Interfacial electron transfer in colloidal metal and semiconductor dispersions and photodecomposition of water, 69, 57

Interligand interactions, noncovalent, in metal complexes, 92, 1

Intervalence excitation, photoredox reactions of mixed-valence compounds induced by, 64, 159

Interview of Fred Basolo, 99, 3

Intramolecular-coordination compounds, organometallic, recent studies on, 83, 137

Intramolecular ferromagnetic interactions in polynuclear metal complexes, 69, 1
Investigation of the Chelate effect: the binding of bidentate phosphine and
arsine chelates in square-planar transition metal complexes, 55, 31
Investigation tools, spectroscopic studies on Cu<sub>2</sub>Zn<sub>2</sub>SOD: a continuous

advancement on, 100, 67

Invited papers presented as part of an international Symposium of the 1984
Chemical Congress of the Pacific Basin Societies on Photochemistry and
Photophysics of Metal Complexes: Applications to Solar Energy Conversion,
held in Honolulu, HI, U.S.A., 17-19 December 1984, 64
Ion exchangers, coordination chemistry of chelating resins and, 59, 1

Iridium (Transition Metal Chemistry Review 1981, 1983, 1984) 57, 155; 73, 113; 98, 251

Iridium hydrido complexes, polynuclear, 96, 49

Iron (Transition Metal Chemistry Review 1981) 67, 109

Iron(II), 97, 1, 141, 237

Fron(II) complexes, spin equilibria in, 94, 67

Kinetics and mechanism of base aquation of chloroamminebis(dimethylglyoimato) cobalt(III) and chloropyridinebis(dimethylglyoximato)cobalt(III), 51, 225

Kinetics and mechanisms of the reduction of trans-tetracyanohydroxobromoplatinate(IV) and its protonated form by some inorganic anions, 51, 141 Lamellar solids, 97, 209

Lanthanide and actinides, complexes of groups 3,4, containing neutral phosphorus donor ligands, 99, 137

Kinetics and mechanisms of metalloporphyrin reactions, 61, 55.

Lanthanide ions and chelates in solution, quenching of excited states by. 99, 55

Lead, 56, 189; 66, 250; 75, 259, 267; 85, 206

Ligand field theory, quantitative formulation of, by the use of orthonormal operators. Exemplification by means of  $p^q$  systems, 94, 181

Ligand field interpretation of metal NMR chemical shifts in octahedral  $d^6$  transition metal complexes, 96, 253

Ligand influence in alkyl tin(IV) halide complexes, 93 No. 2, 185

Ligand interactions in crowded molecules, 79, No. 3, 229

Ligand substitution reactions of metal complexes, retrospective on studies of, 100, 47

Ligand substitution reactions, thermal and photochemical, mechanism of, of chromium(III) and other octahedral metal complexes, 94, 109

Ligand to metal charge transfer states, 97, 285

Light-induced excited spin state trapping (LIESST), 97, 1

Light-sensitive coordination compounds and possibilities of their spectroscopic sensitization -- an overview, photocatalytic systems with, 61, 1

Linear thermodynamic function relationships in coordination chemistry, 79, No. 3, 257

 $M(bpy)_3$  (M = Fe, Ru, Os),  $Cr(bpy)_3$ , electron spectroscopy and related compounds, 64, 21

Macrocycle complexes, 97, 65

Macrocyclic ligands, rare earth complexes with neutral, 60, 191

Macrocyclic multidentates, comprehensive coordination chemistry of alkali and alkaline earth cations with macrocyclic multidentates: Latest position, 87, 55

Macrocyclic transition metal complexes, bisaxially coordinated, 83, 115

Macromolecular systems, coordination and redox chemistry of some, 53, 55

Magnetic circular dichroism spectroscopy: copper, rare-earth ions, cobalt and non-heme irons systems, bioinorganic applications of, 60, i

Magnetic properties, of dimeric copper(II) complexes, factors affecting, 92, 45

Magnetochemistry: a research proposal, 79, No. 3, 215

Main group metals, photochemistry of, 97, 285

Manganese (Transition Metal Chemistry Review 1981, 1982, 1983) 52, 183, 71, 3; 72, 197

Manganese(0), 97, 167

Manganese(I), 97, 141

Matrix isolation studies of organometallic intermediates, 55, 1

Mechanism for the reactions of electrophiles with polynuclear transition metal carbonyl and related complexes, 51, 41

Mechanistic aspects of reactions involving Ag(II) as an oxidant, 54, 131

Mechanistic aspects of the metal ion promoted hydrolysis of nucleoside

5'-triphosphates (NTPs), 100, 453

Mechanistic studies in coordination chemistry, application of high pressure kinetic techniques to, 93 No. 1, 19

Medical Diagnostic Imaging with Complexes of 99mTc, 78, 253

Mercury (Transition Metal Chemistry Review 1981, 1982, 1983) 52, 1; 58, 53; 62, 37

Metal-carbonyls,  $\eta^5$ -heterocyclic, **79**, No. 3, 279; 97, 119, 141, 155, 167.

Metal-centered transition metal excited states, structure and reactivity of, 77, 1

Metal chelate compounds, vibrational spectra of dioxygen adducts of, 100, 363  $d^{10}$  Metal complexes, spectroscopic and photochemical properties of, 99, 213 Metal complex catalysis of electrochemical reactions, 99, 15

Metal complexes, exchange-coupled transition, optical spectroscopy of, 88, 69
Metal complexes of uracils, 79, Nos. 1-2, 97

Metal complexes, photodynamics and electronic structures of, 64, 53

Metal complexes, retrospective on studies of ligand substitution reactions of

metal complexes, 100, 47

Metal complexes, variety in the coordination modes of Beta-dicarbonyl compounds, 70, 51

Metal halides, the molecular geometry of, 91, 35

Metal-ion catalysed aquation of transition metal complexes, 68, 145 Metal ion promoted hydrolysis of nucleoside 5'-triphosphates (NTPs),

mechanistic aspects of, 100, 453

Metal ions, role of in the hydrolysos of phosphate esters and anhydrides, 79, No. 3, 293

Metal-ligand angular geometry, sharp line electronic transitions and, 70, 85
Metal-ligand interactions in heterometallic transition metal clusters,

selective, 65, 219

Metallochlorophylls, photoelectrochemistry of, 64, 207

Metalloporphyrin reactions, kinctics and mechanisms of, 81, 65

Metalioporphyrin structure and dynamics from resonance Raman spectroscopy, 100,

541

Metalloporphyrins, structure and properties of metalloporphyrins and hemoproteins: the vibronic approach, 88, 1

Metal NMR chemical shifts, in octahedral d<sup>6</sup> transition metal complexes, ligand field interpretation of, 96, 253

Metal-sulfur clusters, electrochemistry of, stereochemical consequences of thermodynamically characterized redox changes. Part I. Homometal clusters, 83, 199. Part II. Heterometal clusters, 87, 1

Metal to ligand charge transfer states, 97, 23, 35, 193, 249, 261, 299

Metal-urea complexes, structural and spectroscopic properties of, 76, 237

Metals and Inorganic Sections, structure reports for 1984, Volume 51A (Book Review) 81, 235

8-Methylquinoline and derivatives, cyclometalated complexes of, with the platinum metals, 93 No. 2, 155

Microelectrodes, and variable-temperature techniques, application of, to voltammetric studies in inorganic reaction mechanisms, 93 No. 1, 1

Mixed-valence compounds, of the early transition metals, 96, 89

Mixed-valence copper(I)-copper(II) compounds: analysis and classification of crystallographic data, 83, 1

Mixed-valence molecules: electronic delocalization and stabilization, 60, 107

Modified electrodes, coordination chemistry in two dimensions: chemically, 88,

135

Molecular catalysts, electrochemical reduction of carbon disxide mediated by,

Molecular mechanics calculations in coordination chemistry, 53, 1

Molecular organization, portal to supramolecular chemistry. Structural

analysis of the factors associated with molecular organization in coordination

and inclusion chemistry, including the coordination template effect, 100, 119

Molecular properties, understanding (Book Review) 81, 239

Molecular structures and pseudo-Jahn-Teller couplings, some remarks on, 100, 29

Molybdenum(0), 97, 155, 271

Molybdenum(I), 97, 119

Molybdenum(IV), 97, 237

Molybdenum (Transition Metal Chemistry Review 1981, 1982) 81, 1, 101

Molybdenum, the biologically relevant oxygen atom transfer chemistry of, from synthetic analogue systems to enzymes, 100, 183

Molybdenum and Tungsten (Transition Metal Chemistry Review 1983, 1984, 1985) 62, 145; 78, 39; 90, 29

Molybdenum and Tungsten compounds, the nuclear magnetic resonance properties of chromium, 68, 169

Molybdenum blues, structural and electronic properties of some polymolybdates reducible to, 65, 167

Molybdenum chemistry, analysis of oligonuclear structures, seven coordination in, 65, 49

Molybdenum, coordination chemistry of Schiff base complexes of, 95 No. 2, 183
Molybdenum porphyrins, and niebium porphyrins, redox chemistry of, 92, 157
Monothio- and monoseleno-carbamate complexes, 54, 99

Mossbauer spectroscopic data, classification and analysis of gold compounds on the basis of their X-ray structural and, 70, 157

Myoglobin, stability properties of dioxygen-iron(II) poryphorins: an overview from simple complexes to, 83, 73

N.N'-Bis(alkylaminoalkyl)oxamides, and related ligands, copper(II) complexes with, 92, 85

N,N'-Chelating biheteroaromatic ligands; a survey, 93 No. 2, 205

Neutral metal complexes, outer-sphere coordination of organic molecules to electrically, 61, 185

Nickel (Transition Metal Chemistry Review 1981, 1983, 1984) 71, 139; 80, 1; 98, 1

Nickel(II) and cobalt(II) thiocyanate systems: a spectrophotometric study, 100, 105

Niobium and tantalum (Transition Metal Chemistry Review 1981) 57, 279

Niobium porphyrins, and molybdenum porphyrins, redox chemistry of, 92, 157

Nitrogen, 56, 270; 66, 291; 75, 298; 85, 290

Nitrosyls in organic synthesis and in pollution control, transition metal, 51,

Noble gases, 56, 471; 66, 504; 75, 522; 85, 523

Noble gases (Main Group Chemistry Review 1982, 1983, 1984, 1985) 58, 471; 66, 504; 75, 522; 85, 523

Nuclear magnetic resonance properties of chromium, molybdenum and tungsten compounds, the 68, 169

Nuclear quadrupole resonance in Inorganic Chemistry (Special Issue), 82, 9
Nucleoside 5'-triphosphates (NTPs), mechanistic aspects of the metal ion
promoted hydrolysis of, 100, 453

Obituary, Dr. T.A. Stephenson, 71, 1

Octahedral  $d^6$  transition metal complexes, ligand field interpretation of metal NMR chemical shifts in, 96, 253

Oligonuclear structures, seven coordination of molybdenum chemistry: analysis of, 65, 49

Optical activity of cobalt(III), chromium(III) and rhodium(III) complexes with aminopolycarboxylate edta-type and related ligands, 54, 159

Optical spectroscopy, of eschange-coupled transition metal complexes, 88, 69 Organocobalt  $B_{12}$  models: axial ligand effects on the structural and coordination chemistry of cobaloximes, 63, 1

Organoiridium complexes as models for homogeneously catalyzed reactions, 83, 93
Organomercury(II) involving phenanthrolines, bipyridines, tertiary
phosphines/arsines and some related ligands, coordination chemistry of, 63,
161

Organometallic intermediates, matrix isolation studies of, 55, 1
Organometallic intramolecular-coordination compounds containing a pi-allyl
donor ligand, 53, 261

Organometallic intramolecular-coordination compounds, recent studies on. 89, 137

Organometallic intramolecular-coordination compounds containing a diolefin

donor ligand, 51, 1

Organometallic photochemistry, ab initio calculations, 97, 141

Organotin compounds, and cancer chemotherapy, 95 No. 1, 109

Organo-Zirconium and -Hafnium compounds, chemistry of (Book Review) 81, 233

Orthonormal operators, quantitative formulation of ligand field theory, by use of. Exemplification by means of  $p^q$  systems, 94, 181

Oscillating chemical reactions, transition metal coordination compounds in, 63,

Osmium (Transition Metal Chemistry Review 1981) 67, 243

Osmium(II), 97, 237

Osmium(IV), 97, 93

Osmium and ruthenium complexes containing cyclopentadienyl and related hapto dienyl ligands, 79, Nos. 1-2, 1

Osmium carbonyl halides, substituted, 93 No. 2, 225

Outer-sphere coordination of organic molecules to electrically neutral metal complexes, 61, 185

Oxygen, 56, 391; 66, 413; 75, 424; 85, 425

Oxygen adducts, low valent metalloporphyrins, and related systems with sulfur and selenium, recent developments in the studies of titanium and vanadium porphyrins with special emphasis on, 65, 87

Oxygen atom transfer chemistry of molybdenum, the biologically relevant, from synthetic analogue systems to enzymes, 100, 183

Pailadium(II) and amino acids, peptides and related ligands, complex formation between, 61, 97

Palladium and Platinum (Transition Metal Chemistry Review 1981, 1982, 1983, 1984) 67. 1: 71, 235; 72, 1; 89, 1

Paramagnetic properties of transition metal complexes, the angular overlap model for the description of the, 60, 131

Pentadentate macrocyclic ligands, complexes of, 91, 89

Peptides and related ligands, complex formation between palladium(II) and amino acids, 61, 9?

Peroxydisulfate ion. VII. The free radical induced chain hydrogenation, the aqueous chemistry of, 51, 243

Phenanthrolines, bipyridines, tertiary phosphines/arsines and some related ligands, coordination chemistry of organomercury(II) involving, 63, 161

Phosphate esters and anhydrides: role of metal ions in the hydrolysis of, 79, No. 3, 293

Phosphine chalcogenides and their conjugate bases, the coordination chemistry of secondary, 80, 67

Phosphines/arsines and some related ligands, coordination chemistry of organomercury(II) involving phenanthrolines, bipyridines, tertiary, 63, 161
Phosphorus, 56, 291; 66, 318; 85, 312

Photocatalytic systems with light-sensitive coordination compounds and possibilities of their spectroscopic sensitization -- an overview, 61, 1 Photochemical and Spectroscopic properties of d<sup>10</sup> metal complexes, 99, 213 Photochemical disproportionation of metal-metal bonded carbonyl dimers, 63, 217 Photochemistry; exciplex quenching of photo-excited copper complexes, 64, 83 Photochemistry and Photophysics of Metal Complexes, 1984 Chemical Congress of the Pacific Basin Societies, invited papers presented as part of an International Symposium: Applications to Solar Energy Conversion, held in Honolulu, HI, U.S.A., 17-19 December 1984, 64

Photochemistry and Photophysics of Coordination Compounds, a collection of papers presented at the 8th International Symposium held in Santa Barbara, CA, U.S.A., 13-17 August 1989, 97

Photochemistry of binuclear d8 complexes, 100, 169

Photodynamics and electronic structures of metal complexes, 64, 53

Photoinduced hydrogen evolution, hydrogenase and its application for, 68, 53

Photoisomerization, of rhodium(III) amine complexes. The deduction of an excited state reaction mechanism, 94, 151

Photoredex reactions, 97, 93, 105, 237, 285

Photoredox reactions of mixed-valence compounds induced by intervalence excitation, 64, 159

Photoselection spectroscopy, 97, 261

Pi-Allyl donor ligand, organometallic intramolecular-coordination compounds containing a, 53, 259

Picosecond spectroscopy, of transition metal complexes, 93 No. 1, 87 Pillared clays, 97, 237

Platinum anticancer drugs and related compounds with DNA, The coordination chemistry of, 100, 293

Platinum(II), 97, 47, 81, 193

Platinum (III), preparation and properties of compounds containing Pt(III), 65. 115

Platinum and Palladium (Transition Metal Chemistry Review 1981, 1982, 1983, 1984) 67, 1: 71, 235; 72, 1: 89, 1

Platinum carbonyls and their use in homogeneous catalysis, 55, 151

Platinum complexes, reactions of alkylcobalamins, 68, 131

Platinum group metal complexes, the chemical and biochemical consequences of the binding of the antitumour drug cisplatin and other, to DNA, 95, No. 2, 129 Platinum metals, alkoxo derivatives of, 68, 101

Platinum metals, amides of the, 95 No. 1, 1

Platinum metals, cyclometalated complexes of 8-methylquinoline and derivatives with, 93 No. 2, 155

Platinum, NMR studies of the dynamic stereochemistry of sulphur and selenium complexes of, 96, 1

Polyhydride complexes, transition-metal, 65, 1

Polymers and proteins, long distance electron transfer in, 64, 113

Polymetallic complexes, 97, 249, 299, 313

Polymetallic complexes, intramolecular energy transfer in, 64, 261

Polymolybdates reducible to molybdenum blues, structural and electronic properties of some, 65, 167

Polynuclear iridium hydrido complexes, 96, 49

Polynuclear metal complexes, intramolecular ferromagnetic interactions in,

69, 1

Polypyridine complexes, Ru(II) polypyridine complexes: photophysics, photochemistry, electrochemistry, and chemiluminescence, 84, 85

Porphyrins with special emphasis on oxygen adducts, low valent metalloporphyrins, and related systems with sulfur and selenium, recent developments in the studies of titanium and vanadium, 65, 87

Porphorins, dioxygen-iron(II), stability properties of: an overview from simple complexes to myoglobin, 83, 73

Possible mechanism for the reactions of electrophiles with polynuclear transition metal carbonyl and related complexes, 51, 41

Potential Medical Applications of Ruthenium Isotopes (Transition Metal Chemistry Review 1981) 52, 171

Potentially heptadentate ligand with a series of 3d transition metal ions, variable coordination chemistry of. The chemistry and structure of  $[M(py_3tren)]^{2+}$  where M(II) = Mn, Fe, Co, Ni, Cu, and Zn and  $(py_3tren) = M(CH_2CH_2N) = C(H)(C_5H_4N)_3$ , 77, 89

Potentiometry revisited: the determination of thermodynamic equilibria in complex multicomponent systems, 100, 323

Preparation and properties of compounds containing Pt(III), 65, 115

Preresonance Raman spectra, calculation of excited state bonding changes and electronic spectra from, 64, 93

Pressure, effects on emission spectra and on photochemistry, 97, 81, 155

Pressure effects on the photochemical reactions of transition metal complexes,
64, 361

Protein complexes, long range electron transfer at fixed and known distance within, 64, 125

Proteins, 113cd NMR spectroscopy of coordination compounds and, 86, 43

Proteins, long distance electron transfer in polymers and, 64, 113

Protoporphyrin-IX, comparison of the electronic and vibrational spectra of complexes of protoporphyrin-IX, hemeoctapeptide, and heme proteins, 84, 1

Pseudo-Jahn-Teller couplings and molecular structures, some remarks on, 100, 29

Pt(III), the preparation and properties of compounds containing, 65, 115

 $[\text{Pt(CN)}_4(\text{OH})\text{Br}]\text{2-oxidation of } [\text{S}_2\text{O}_3]\text{2- and } [\text{S}_4\text{O6}]\text{2-}, \text{ 51, 125}$ 

Quadruply bonded metal-metal complexes, 97, 105

Quantum mechanical effects in inorganic and bioinorganic electron transfer, 68. 1

Raman spectra, preresonance, excited state bonding changes and electronic spectra from, calculation of, 64, 93

Rare earth carboxylates, in dimeric and polymeric forms, structure of, 92, 29

Rare earth complexes with neutral macrocyclic ligands, 60. 191

Reactions of alkylcobalamins with platinum complexes, 68, 131

Reactivity and reaction mechanism of acetylacetonato complexes of tervalent metal ions in solution, 100, 427

Reagent and catalyst induced substitution reactions of metal carbonyl complexes, 53, 227

Recent developments in arylgold chemistry, 70, 1

Recent developments in the studies of titanium and vanadium porphyrins with a special emphasis on oxygen adducts, low valent metalloporphyrins, and related systems with sulfur and selenium, 65, 87

Redox behaviour and electrochemistry of transition metal dithiocarbamates, 54, 23

Redox changes, electrochemistry of metal-sulfur clusters: stereochemical consequences of thermodynamically characterized redox changes. Part I. Homometal clusters, 83, 199. Part II. Heterometal clusters, 87, 1 Redox chemistry, of niobium and molybdenum porphyrins, 92, 157 Redox chemistry of some macromolecular systems coordination and, 53, 55 Redox orbitals, spatially isolated, an update, 64, 65 Reductive dioxygen activation, by use of artificial P-450 systems, 86, 1 Resonance Raman spectroscopy, metalloporphyrin structure and dynamics from, 100, 541

Rhenium (Transition Metal Chemistry Review 1981, 1982, 1983) 52, 249; 73, 1; 80, 173

Rhenium carbonyl clusters: synthesis, structure, reactivity, 93 No. 2, 269

Rhodium (Transition Metal Chemistry Review 1981, 1983, 1984) 57, 75; 73, 59; 89, 257

Rhodium(I), 97, 179

Rhodium(I) compounds by aromatic compounds, efficiencies of electron transfer reactions in the quenching of excited, 64, 311

Rhedium(III), 97, 249

Rhodium(III) amine complexes, photoisomerization of, 64, 343

Rhodium(III) amine complexes, photoisomerization of. The deduction of an excited state reaction mechanism, 94, 151

Rhodium(III) complexes with aminopolycarboxylate edta-type and related ligands, optical activity of cobalt(III), chromium(III) and, 54, 159

Ru(II) polypyridine complexes, Ru(II) polypyridine complexes: photophysics, photochemistry, electrochemistry, and chemiluminescence, 84, 85

 $[Ru(bpy)_3]^{2+}$ /methyl viologen/ EDTA photchemical system. solution medium control of the, 64, 175

Ruthenium(II), 97, 23, 81, 237, 249, 261, 271, 299

Ruthenium and osmium complexes containing cyclopentadienyl and related hapto dienyl ligands, 79, Nos. 1-2, 1

Ruthenium carbonyl halides, substituted, 70, 121

Ruthenium cluster carbonyls under mild conditions, some reactions of, 76, 1
Ruthenium compounds, electrochemical studies of. Part I. Ligand oxidation
levels, 95 No. 2, 239

Ruthenium, medical, 52, (1983) 171

Ruthenium (Transition Metal Chemistry Review 1981) 67, 171

Scandium (Transition Metal Chemistry Review 1981, 1983, 1982) 57, 229; 62, 131; 71, 383

Schiff base complexes, of molybdenum, coordination chemistry of, 95, No. 2, 183

Scientific publications of Professor Wayne K. Wilmarth, 51, 105

Selective metal-ligand interactions in heterometallic transition metal clusters, 85, 219

Selenides and tellurides, soluble, 100, 223

Selenium, 56, 427; 66, 461; 75, 475; 85, 479

transfer in colloidal metal and, 69, 57

Selenium, recent developments in the studies of titanium and vanadium porphyrins with a special emphasia on oxygen adducts, low valent metalloporphyrins, and related systems with sulfur and, 65, 87

Semicarbazones and thiosemicarbazones, transition metal complexes of, 63, 127

Semiconductor dispersions and photodecomposition of water, interfacial electron

Semiconductors with transition metal complexes - a route to the photoassisted cleavage of water, photosensitization of, 64, 225

Seven coordination in molybdenum chemistry: analysis of oligonuclear structures, 65, 49

Sharp line electronic transitions and metal-ligand angular geometry, 70, 85 Silicon, 56, 189; 66, 200; 75, 210; 85, 206

Silver (Transition Metal Chemistry Review 1981) 67, 297

Silver and copper, in their higher exidation states, the chemistry of, 76, 45 Small stability constants, of aniono complexes in aqueous solutions, problems concerning the determination of, 94, 1

Soft and hard acids and bases - the evolution of a chemical concept, 100, 403

Solid state coordination chemistry, cooperative optical effects, 100, 155

Solution medium control of the [Ru(bpy)3]<sup>2+</sup>/methyl viologen/EDTA photochemical system, 64, 175

Solvent reorganization, energetics and dynamics of, 97, 23

Solventochromism, 97, 47, 271

Spatially isolated redox orbitals - an update, 64, 65

Specific exidation of organic substrates with cobalt(II) catalysts, utilization of  $O_2$  for the, 79, No. 3, 321

Spectrophotometric study, The cobalt(II) and nickel(II) thiocyanate systems, 100, 105

Spectroscopic and photochemical properties of d<sup>10</sup> metal complexes, 99, 213

Spectroscopic and structural properties of metal-urea complexes, 76, 237

Spectroscopic data, Mossbauer and X-ray structure, classification and

analysis of gold compounds on the basis of, 70, 157

Spectroscopic sensitization, light-sensitive coordination compounds and possibilities -- an overview, photocatalytic systems with, 61, 1

Spectroscopic studies on Cu<sub>2</sub>Zn<sub>2</sub>SOD: a continuous advancement on investigation tools, 100, 67

Spin equilibria, in iron(II) complexes, 94, 67

Spin equilibrium systems, static and dynamic effects in, 86, 245

Spin labels, interaction of, with transition metals. Part 2, 83, 29

Square-planar transition metal complexes, an investigation of the chelate

effect: the binding of bidentate phosphine and arsine chelates in, 55, 31

Stephenson, T.A. Dr., - Obituary, 71, 1

Stereochemistry of coordination compounds, some special aspects of, 100, 1
Structural analysis of the factors associated with molecular organization in
coordination and inclusion chemistry, including the coordination template
effect. Molecular organization, portal to supramolecular chemistry, 100, 119
Structural and electronic properties of some polymolybdates reducible to
molybdenum blues, 65, 167

Structural consequences of bonding in transition metal carbene complexes, 55, 261

Structural and spectroscopic properties of metal-urea complexes, 76, 237
Structural data of technetium compounds, analyses of, 77, 275

Structure Reports for 1984. Volume 51A: Metals and Inorganic Sections, (Book Review) 81, 235

Substituted ruthenium carbonyl halides, 70, 121

Substitution reactions of trans  $[-Co(CN)_4(SO_3)(OH_2)]^{3-}$ . II. The rate of substitution of coordinated water by ammonia, pyridine, azido, thiocyanato. and sulfito ligands and the rate of aquation of trans $[-Co(CN)_4(SO_3)NH3]^{3-}$  and trans $-Co(CN)_4(SO_3)py^{3-}$ , 51, 181

Substitution reactions of trans  $[-Co(CN)_4(SO_3)(OH_2)]^{3-.III}$ . The rate of substitution of coordinated water by 4-methylpyridine, 4-acetylpyridine,  $I^-,NO_2^-,CH_3NH_2$ ,  $HSO_3^-$  and  $S_2O_3^{2-}$ , 51, 209

Sulphur, 56, 394; 66, 416; 75, 427; 85, 429

Sulfur and selenium, recent developments in the studies of titanium and vanadium porphyrins with a special emphasis on oxygen adducts, low valent metalloporphyrins, and related systems with, 65, 87

Synthetic aspects of Cu-Mo-S systems and their possible relevance to copper-molybdenum antagonism, 59, 239

Tantalum and Niobium (Transition Metal Chemistry Review 1981) 57, 279

Technetium, medical, (1987), 78, 253

Technetium (Transition Metal Chemistry Review 1981, 1982, 1983) 52, 241; 71, 389; 80, 157

Technetium compounds, analyses of structural data of, 77, 275

Tellurides and selenides, soluble, 100, 223

Tellurium, 56, 432; 66, 469; 75, 485; 85, 485

Tervalent metal ions in solution, reactivity and reaction mechanism of acetylacetonato complexes of, 100, 427

Tetracarbonyls and their derivatives, alkylcobalt, 59, 293

Tetra- $\mu$ -pyrophosphito-di-platinum(II) ion Pt<sub>2</sub>(P<sub>2</sub>O<sub>5</sub>H<sub>2</sub>)<sub>4</sub><sup>4-</sup>, the behaviour of the tetra- $\mu$ -pyrophosphito-di-platinum(II) ion Pt<sub>2</sub>(P<sub>2</sub>O<sub>5</sub>H<sub>2</sub>)<sub>4</sub><sup>4-</sup> and related species, 84, 47

Thallium, 75, 183

Thermodynamic equilibria, the determination of, in complex multicomponent systems: potenticmetry revisited, 100, 323

Thiolato-complexes of the transition metals, 76, 121

Tin, 56, 189; 66, 250; 75, 259, 267; 85, 206

Titanium and vanadium porphyrins with a special emphasis on oxygen adducts, low valent metalloporphyrins, and related systems with sulfur and selenium, recent developments in the studies of, 65, 87

Titanium organometallic compounds: analysis and classification of crystallographic data, 74, 53

Titanium (Transition Metal Chemistry Review 1981, 1982, 1983, 1984, 1985) 57, 301; 58, 87; 73, 175; 78, 147; 90, 243

241

Thiocyanate systems, cobalt(II) and nickel(II), a spectrophotometric study, 100, 105

Thiosemicarbazones, transition metal complexes of semicarbazones and, 63, 127
Thallium, 56, 171; 66, 173; 85, 176

Thione donors, complexes of heterocyclic, 61, 115

Towards the unification of coenzyme B<sub>12</sub>-dependent diol dehydratase stereochemical and model studies: the bound radical mechanism, 54, 1 Transition metal carbene complexes, structural consequences of bonding in, 55, 261

Transition metal chemistry, a new emphasis on the roles of d electrons, 99, 117

Transition metal chemistry, the role of group 14 element carbene analogues in,
100, 267

Transition metal clusters, selective metal-ligand interactions in heterometallic, 65, 219

Transition metal complexes, geometric and electronic factors of dinitrogen activation on, 55, 55

Transition metal complexes, metal-ion catalysed aquation of, 68, 145

Transition metal complexes of semicarbazones and thiosemicarbazones, 63, 127

Transition metal complexes, photosensitization of semiconductors with, - a

route to the photoassisted cleavage of water, 64, 225

Transition metal complexes, picosecond spectroscopy of, 93 No. 1, 87

Transition metal complexes, pressure effects on the photochemical reactions of, 64, 361

Transition metal complexes, spectroscopic properties of  $(nd)^{10}$ , 64, 41Transition metal complexes, the angular overlap model for the description of the paramagnetic properties of, 60, 131

Transition metal complexes, X-ray diffraction and the charge distribution in. 65, 285

Transition metal coordination chemistry of anion radicals, 76, 187

Transition metal coordination compounds in oscillating chemical reactions, 63,

Transition metal dithiocarbamates, electrochemistry and redox behaviour of, 54, 23

Transition metal excited states, structure and reactivity of the metal-centred.

77, 1

Transition metal hydroxyoxime complexes, 59, 141

Transition metal nitrosyls in organic synthesis and in pollution control. 51, 69

Transition metal-organic systems, photochemistry of, 64, 191

Transition metal polyhedra, cluster complexes containing opened, 69, 127

Transition-metal polyhydride complexes, 65, 1

Transition-metals, interaction of spin labels with. Part 2. 83, 29

Transition-metals, thiolato-complexes of the, 76, 121

3d Transition metal ions, the variable coordination chemistry of a potentially heptadentate ligand with a series of. The chemistry structures of  $[M(py_3tren)]^{2+}$  where M(II) = Mn, Fe. Co, Ni, Cu, and Zn and  $(py_3tren = N(CH_2CH_2N) = C(H_1)(C_5H_4N)_3$ , 77, 89

Tridentate macrocyclic ligands, complexes of, 91, 89

Trimethylamine N-oxide -- a versatile reagent for organometallic chemistry, 60, 225

Tris(2,2'-bipyridine)cobalt(I), reduction of carbon dioxide by, 84, 247
Tungsten(0), 97, 155, 271

Tungsten (Transition Metal Chemistry Review 1981, 1982) 80, 225; 81, 51

Tungsten and Molybdenum (Transition Metal Chemistry Review 1983, 1984, 1985)

62, 145; 78, 39; 90, 29

Tungsten compounds, the nuclear magnetic resonance properties of chromium, molybdenum and, 68, 169

Uracils, metal complexes of, 79, Nos. 1-2, 97

Uranium(VI), 97, 269

Vanadium porphyrins with a special emphasis on oxygen adducts, low valent metalloporphyrins, and related systems with sulfur and selenium, recent developments in the studies of titanium and, 65, 87

Vanadium (Transition Metal Chemistry Review 1981, 1982) 57, 237; 81, 173

Variable coordination chemistry of a potentially heptadentate ligand with a series of 3d transition metal ions. The chemistry and structure of  $[M(py_3tren)]^{2+} \text{ where } M(II) = Mn, \text{ Fe. Co. Ni, Cu, and Zn and } (py_3tren = N(CH_2CH_2N = C(H)(C_5H_4N)_3, 77, 89)$ 

Variable-temperature techniques, application of microelectrodes and, to voltammetric studies of inorganic reaction mechanisms, 93 No. 1, 1

Variety in the coordination modes of Beta-dicarbonyl compounds in metal complexes, 70, 51

Vibrational spectra of dioxygen adducts of metal chelate compounds, 100, 363

Voltammetric studies, of inorganic reaction mechanisms, application of microelectrodes and variable-temperature techniques to, 93 No. 1, 1

Water, interfacial electron transfer in colloidal metal and semiconductor dispersions and photodecomposition of, 69, 57

Water, photosensitization of semiconductors with transition metal complexes - a route to the photoassisted cleavage of, 64, 225

Wilmarth, Wayne Colleague, 51, 111

Wilmarth, W.K. Chemist, 51, 113

X-Ray diffraction and the charge distribution in transition metal complexes, 65, 285

X-Ray structural and Mossbauer spectroscopic data, classification and analysis of gold compounds on the basis of their, 70, 157

Zeolites, 97, 225, 237

Zinc and Cadmium (Transition Metal Chemistry Review 1981, 1982, 1983, 1984, 1985) 52, 1; 58, 1; 62, 1; 78, 125; 98, 279

Zirconium and Hafnium (Transition Metal Chemistry Review 1981, 1982, 1983)
52, 285; 71, 113; 80, 131