

SUBJECT INDEX TO VOLUME 16

<i>a</i> = abstract	Page	Catalysts, Pd/Al ₂ O ₃ (contd)	Page
Brazing , Pd-Ni and Pd-Mn-Ni alloys for, <i>a</i>	30	reduction of N oxides in exhaust gases to N ₂ on, <i>a</i>	108
Catalysis , 5th International Congress on	138	Pd/C , dispersion of Pd in, <i>a</i>	32
Catalysts , H ₂ PtCl ₆ , hydrogenation of methylcyclohexadienoate, <i>a</i>	111	H ₂ chemisorption on, <i>a</i>	65
Iridium , black, heat of adsorption of H ₂ on, <i>a</i>	110	hydrogenation on, liquid phase, <i>a</i>	148
black, hydrogenation of cyclo-olefins on, <i>a</i>	33	Pd/kieselguhr , hydrogenation of C ₂ H ₂ on, <i>a</i>	65
complexes, IrH(CO)(PPh ₃) ₃ , IrH ₃ (CO)(PPh ₃) ₃ , IrH(CO)(PPh ₃) ₂ , hydrogenation of C ₂ H ₄ with, <i>a</i>	34	Pd/polyacrylonitrile , effect of KOH additions on, <i>a</i>	32
complexes, IrCl(CO)(PPh ₃) ₃ , isomerisation of vinylcycloalkenes and alkanes with, <i>a</i>	34	hydrogenation of dimethylethynylcarbinol on, <i>a</i>	148
reaction of <i>n</i> -C ₅ H ₁₂ with H ₂ on, <i>a</i>	33	Pd/poly-S-leucine , hydrogenation of methylcinnamic acid on, <i>a</i>	32
Ir/Al₂O₃ , hydrogenation of dimethylethynylcarbinol on, <i>a</i>	110	Pd/poly-S-valine , hydrogenation of methylcinnamic acid on, <i>a</i>	32
Ir/support , alkylation of PhH, PhCH ₃ and cyclohexane, <i>a</i>	110	Pd/polyvinyl alcohol , with added alkali, hydrogenation of dimethylethynylcarbinol on, <i>a</i>	65
Osmium , black, heat of adsorption of H ₂ on, <i>a</i>	110	electrical conductivity of, <i>a</i>	33
black, hydrogenation of butynediol on, <i>a</i>	33	H ₂ uptake by hydrocarbons on, <i>a</i>	109
OsO₄ , oxidation of acetaldehyde, <i>a</i>	33	Pd/zeolite , CaA, KA, NaA, structure and hydrogenation activity of, <i>a</i>	109
Palladium , black, hydrogenation of acrylic acid in ultrasonic field, <i>a</i>	148	Palladium-Osmium , hydrogenation of butynediol on, <i>a</i>	33
black, hydrogenation of butynediol on, <i>a</i>	33	Palladium-Rhodium , films of, CO oxidation on, <i>a</i>	108
black, hydrogenation of cyclo-olefins, <i>a</i>	33	Pd salt/C , reactivation of, <i>a</i>	32
black, surface area and particle size of, <i>a</i>	148	Palladium-Silver , hydrogenation of PhNO ₂ on, <i>a</i>	31
complexes, π-allylpalladium bromide, polymerisation of butadiene, <i>a</i>	66	Pd-Rh/Al₂O₃ , hydrogenation of C ₂ H ₄ on, <i>a</i>	110
complexes, π-allylpalladium chloride, polymerisation of butadiene, <i>a</i>	66	Pd-Ru/Al₂O₃ , hydrogenation of C ₂ H ₄ on, <i>a</i>	110
complexes, bis-π-allylpalladium, dimerisation of 1,3,7-octatriene on, <i>a</i>	149	Platinum , black, heat of adsorption of H ₂ on, <i>a</i>	110
complexes, oxycyanation of C ₂ H ₄ and C ₂ H ₆ with, <i>a</i>	66	black, hydrogenation of acrylic acid on, <i>a</i>	148
complexes, Pd(CN) ₂ (PPh ₃) ₃ , hydrogenation of methyloctadecadienoate, <i>a</i>	111	black, hydrogenation of butynediol on, <i>a</i>	33
complexes, dimethylsulphoxide, olefin hydrogenation using, <i>a</i>	66	black, hydrogenation of cyclohexene, -nonene and -dodecene, <i>a</i>	30
complexes, ditertiary butoxy Pd(II), dimerisation of dienes, <i>a</i>	33	black, hydrogenation of cyclo-olefins on, <i>a</i>	33
complexes, reaction of 1,3-dienes on, <i>a</i>	33	black, sorption properties of, <i>a</i>	107
complexes, PdCl(C ₆ H ₅ -1) ₃ , solvent effects on, <i>a</i>	33	black, thermal treatment effect on, <i>a</i>	64
films, D/H exchange over, <i>a</i>	32	complexes, reaction of 1,3-dienes on, <i>a</i>	33
films, dehydrocyclisation of methyl pentanes on, <i>a</i>	110	complexes, PtCl ₂ (PPh ₃) ₂ , hydrogenation of methyloctadecadienoate, <i>a</i>	111
foil, dehydrogenation of cyclohexane on, <i>a</i>	31	complexes, PtCl ₂ (PPh ₃) ₂ , isomerisation of vinylcycloalkanes and -alkenes, <i>a</i>	34
hydrogenation of dimethylethynylcarbinol on, <i>a</i>	65	complexes, PtCl ₂ (Ph ₃ As) ₂ + SnCl ₂ , hydrogenation of methyloctadecadienoate, <i>a</i>	111
oxidation of CO on, <i>a</i>	31	dhydrocyclisation of dimethylcyclo-octanes over, <i>a</i>	30
reaction of <i>n</i> -C ₅ H ₁₂ with H ₂ on, <i>a</i>	33	effect of heat on, <i>a</i>	30
redox system, synthesis of succinates using, <i>a</i>	149	effect of Hg poisoning on, <i>a</i>	30
supported, hydrogenation of fatty acids on, <i>a</i>	32	exhaust purification using films, dehydrocyclisation of methyl pentanes on, <i>a</i>	74
synthesis of vinyl acetate on, <i>a</i>	111	films, dehydrocyclisation of methyl pentanes on, <i>a</i>	110
Palladium Acetate , coupling of C ₆ H ₆ and olefins, <i>a</i>	66	films, effect of presorption on, and area determination of, <i>a</i>	63
dimerisation of dienes, <i>a</i>	33	films, H ₂ /O ₂ titration of, <i>a</i>	63
Palladium Acetoacetate , dimerisation of dienes, <i>a</i>	33	heated wire, decomposition of NO ₂ on, <i>a</i>	147
PdCl₂ , solvent effects on, <i>a</i>	33	hydrogenation of dimethylenebicyclononane on, <i>a</i>	64
Palladium-Gold , wires, hydrogenation of but-2-yne, <i>a</i>	65	lead-free gasoline production using metals, supported, reduction of nitro compounds, <i>a</i>	42
Palladium-Nickel-Aluminium , hydrogenation of cottonseed oil on, <i>a</i>	109	oxidation of gases from pyrolysis of human wastes, <i>a</i>	110
Pd/Al₂O₃ , butene isomerisation on, <i>a</i>	109	reaction of NO with H ₂ on, <i>a</i>	147
combustion of HNO ₃ pollutants on, <i>a</i>	30	reaction of <i>n</i> -C ₅ H ₁₂ with H ₂ on, <i>a</i>	33
dehydrocyclisation of alkenes and alkadienes, <i>a</i>	32	PtCl₂ , solvent effects on, <i>a</i>	33
dehydrogenation of cyclohexane on, <i>a</i>	109	Platinum-Iridium , H ₂ adsorption on, <i>a</i>	64
dispersion and activity of, <i>a</i>	65	H ₂ adsorption on, <i>a</i>	107
effect of Mn, Cr and Zn on, <i>a</i>	109	Pt-Fe/C , preparation of, <i>a</i>	148
electrical conductivity of, <i>a</i>	33	Pt/Al , catalytic activation of, <i>a</i>	65
H ₂ chemisorption on, <i>a</i>	65	Pt/Al₂O₃ , C ₂ H ₄ hydrogenation on, <i>a</i>	147
hydrogenation of C ₂ H ₂ on, <i>a</i>	65	activity for C ₂ H ₄ hydrogenation, <i>a</i>	64
		aromatisation of alkanes and alkenes on, <i>a</i>	65
		aromatisation of <i>n</i> -hexane on, <i>a</i>	108

Catalysts, Pt/Al ₂ O ₃ (contd)	Page	Catalysts (contd)	Page
aromatisation of methylheptane and dimethylhexane, <i>a</i>	31	Rh/Al₂O₃ , dealkylation of toluene on, <i>a</i>	66, 110, 149
chemisorption on, <i>a</i>	147	dehydrocyclisation of 2-N-butylnaphthalene on, <i>a</i>	149
combustion of HNO ₃ pollutants on, <i>a</i>	30	electrical conductivity of, <i>a</i>	33
dehydrocyclisation of paraffins on, <i>a</i>	108	C ₂ H ₄ and C ₃ H ₆ oxidation on, <i>a</i>	32
effect of Cl and H ₂ O on, <i>a</i>	30	Rh/C , hydrogenation of cyclohexadiene on, <i>a</i>	110
effect of Cl on 3-methylheptane dehydrocyclisation, <i>a</i>	108	hydrogenolysis of cyclopentanes on, <i>a</i>	149
effect of H ₂ pressure and H ₂ O on, <i>a</i>	30	Rh/SiO₂ , electrical conductivity of, <i>a</i>	33
effect of preparation method on, <i>a</i>	31	Rhodium-Platinum , NH ₃ oxidation on, <i>a</i>	108, 147
effects of rare earths on, <i>a</i>	31	gauze, NH ₃ oxidation on, <i>a</i>	64
effect of S on, <i>a</i>	31	gauze, concentrated HNO ₃ production on, <i>a</i>	64
electrical conductivity of, <i>a</i>	33	gauze, properties of, <i>a</i>	30
H ₂ chemisorption on, <i>a</i>	65	gauze, reduction of Pt loss from, <i>a</i>	30
hydrogenation of C ₃ H ₈ and <i>iso</i> -C ₄ H ₈ on, <i>a</i>	108	Rhodium-Ruthenium , H ₂ adsorption properties of, <i>a</i>	149
isomerisation of <i>n</i> -hexane on, <i>a</i>	108	Rh-Ru/Al₂O₃ , hydrogenation of C ₆ H ₆ on, <i>a</i>	110
preparation of an cyclohexane dehydrogenation on, <i>a</i>	64	Ruthenium , black, heat of adsorption of H ₂ on, <i>a</i>	110
promoted by Y and Ce, petroleum reforming on, <i>a</i>	64	complexes, RuCl ₂ (PPh ₃) ₃ , hydrogenation of dienes using, <i>a</i>	150
reduction of U(VI) and Pu(IV) with N ₂ H ₄ on, <i>a</i>	108	complexes, RuCl ₂ (PPh ₃) ₃ , isomerisation of 1,4-diarylbutenes by, <i>a</i>	150
Y-promoted, hydrogenation of C ₆ H ₆ on, <i>a</i>	64	complexes, RuCl ₂ (PPh ₃) ₃ , isomerisation of vinylcycloalkenes and -alkanes, <i>a</i>	34
Pt/C , dehydrocyclisation of 1-ethylnaphthalene on, <i>a</i>	147	complexes, RuCl ₂ (PPh ₃) ₃ , reduction of cyclohexanones by alcohols using, <i>a</i>	150
H ₂ chemisorption on, <i>a</i>	65	complexes, RuH(CF ₃ COO)(PPh ₃) ₃ , hydrogenation of dienes using, <i>a</i>	150
hydrogenolysis of acenaphthene on, <i>a</i>	147	complexes, Ru(NCS)(CO)(NO)(PPh ₃) ₂ , oxidation of triphenylphosphine using, <i>a</i>	150
in fuel cells, <i>a</i>	150	complexes, Ru(O ₂)(NCS)(NO)(PPh ₃) ₂ , oxidation of triphenylphosphine using, <i>a</i>	150
Pt/SiO₂ , active area measurement of, <i>a</i>	65	reaction of <i>n</i> -C ₅ H ₁₂ with H ₂ on, <i>a</i>	33
activity for dehydrogenation of, <i>a</i>	109	Ru/Al₂O₃ , electrical conductivity of, <i>a</i>	33
chemisorption on, <i>a</i>	147	C ₂ H ₄ and C ₃ H ₆ oxidation, <i>a</i>	32
electrical conductivity of, <i>a</i>	33	hydrogenolysis of butane on, <i>a</i>	110
H ₂ chemisorption and Pt dispersion on, <i>a</i>	109	Ru/SiO₂ , electrical conductivity of, <i>a</i>	33
hydrogenation of ethylenes on, <i>a</i>	148	hydrogenation of acetoacetic esters on, <i>a</i>	32
hydrogenolysis of methylcyclopropane over, <i>a</i>	148	isomerisation of 1-butene on, <i>a</i>	32
Pt surface area of, <i>a</i>	108	Ru/support , alkylation of PhH, PhCH ₃ and cyclohexane, <i>a</i>	110
Pt/SiO-Al₂O₃ , hydrogenation of ethylenes on, <i>a</i>	148	Ru-Pt/TiO₂ , hydrogenation using, <i>a</i>	109
synthesis of xylene on, <i>a</i>	31	Ruthenium-Rhodium , H ₂ adsorption properties of, <i>a</i>	149
Pt/support , alkylation of PhH, PhCH ₃ and cyclohexane, <i>a</i>	110	Cathodic Protection , Pt/Ti anodes for, review of, <i>a</i>	67
Pt/WO₃ , H ₂ electrocatalyst, composition of, <i>a</i>	148	Cells , galvanic, K ₁₋₃ Pt(C ₂ O ₄) _x H ₂ O, proton injection in, <i>a</i>	63
Platinum-Osmium , hydrogenation of butynediol on, <i>a</i>	33	Chemical Plating , Pt, <i>a</i>	147
Pt-Pd/Al₂O₃ , hydrogenation of C ₆ H ₆ on, <i>a</i>	110	Coatings , Pt-Au, Pd-Au on Ir, Ru, W, Mo, <i>a</i>	147
Platinum-Rhenium , lead-free gasoline production using, <i>a</i>	42	Corrosion , Pd-Ti in HCl, study of, <i>a</i>	111
Platinum-Rhodium , NH ₃ oxidation on, <i>a</i>	108, 147	Pd-Ti in HCl, study of Pd loss of, <i>a</i>	111
gauze, NH ₃ oxidation on, <i>a</i>	64	Ru-Ti in HCl, study of, <i>a</i>	111
gauze, concentrated HNO ₃ production on, <i>a</i>	64	stainless steels, Pd and Pd-Mo additions to, <i>a</i>	111
gauze, properties of, <i>a</i>	30	Crucibles , Pt, corrosion in, <i>a</i>	30
gauze, reduction of Pt loss from, <i>a</i>	30	Pt, melting optical glasses in, <i>a</i>	34
Pt-Rh/Al₂O₃ , hydrogenation of C ₆ H ₆ on, <i>a</i>	110	Diffusion Units , H ₂ , ultra-pure	124
Pt-Ru/Al₂O₃ , hydrogenation of C ₆ H ₆ on, <i>a</i>	110	Electrical Contacts , Pt group metals, properties and applications of, <i>a</i>	67
Rhodium , black, hydrogenation of cyclo-olefins, <i>a</i>	33	Electrodeposition of Osmium , from osmic acid, <i>a</i>	29
complexes, Rh ₄ (CO) ₁₂ , hydroformylation of propene using, <i>a</i>	149	Osmium	90
complexes, RhCOCl(PPh ₃) ₃ , isomerisation of bis-olefinic acids with, <i>a</i>	149	Palladium-Cobalt , from mixed-ligand electrolytes, <i>a</i>	29
complexes, RhCl(PPh ₃) ₃ , hydrogenation of cyclohexane with, <i>a</i>	66	Platinum , on Ni-based turbine blades	87
complexes, RhCl(PPh ₃) ₃ , hydrogenation of dienes by, <i>a</i>	149	Platinum Metals , laboratory unit for, <i>a</i>	64
complexes, RhCl(PPh ₃) ₃ , isomerisation of bis-olefinic acids with, <i>a</i>	149	Electrodes , Platinum, adsorption of gases on, <i>a</i>	29
complexes, RhCl(PPh ₃) ₃ /divinylbenzenestyrene, reduction of olefins on, <i>a</i>	33	black, in biogalvanic cell, <i>a</i>	107
complexes, Rh chlorodimethylsulphoxide, hydrogenation and isomerisation of pentenes by, <i>a</i>	150	effect of chemisorbed species on Pt complex reactions, <i>a</i>	63
complexes, Rh(NO ₃) ₂ · 2H ₂ O, polymerisation of isoprene and butadiene, <i>a</i>	111	heat-treated, electrochemical activity of, <i>a</i>	29
reaction of <i>n</i> -C ₅ H ₁₂ with H ₂ on, <i>a</i>	33	hydrogenation of propargyl alcohol on, <i>a</i>	63
		porous, manufacture of, <i>a</i>	107
		Raney, autogenic H ₂ reference, <i>a</i>	66
		structural effects of, <i>a</i>	63

Electrodes, Platinum (<i>contd</i>)	<i>Page</i>	Palladium Alloys (<i>contd</i>)	<i>Page</i>
with adsorbed surface films, <i>a</i>	63	Palladium-Copper-Nickel , structure at 400–700°C, <i>a</i>	61
Pt-H ₂ /H ⁺ , coefficients of electric tension of, <i>a</i>	146	Palladium-Gold , coatings on Ir, Ru, W, Mo, <i>a</i>	147
Pt/C, in fuel cells, <i>a</i>	150	thermodynamic properties of, <i>a</i>	60
Electroless Plating of, Palladium , on adsorbed Sn(II) layer, <i>a</i>	63	thick film pastes of, <i>a</i>	112
Palladium, photoselective process using, <i>a</i>	29	Palladium-Gold-Silver , Debye temperature and expansion of, <i>a</i>	60
Fuel Cells , activity of dispersed Pt in, <i>a</i>	150	Palladium-Gold-Tellurium , superconductivity in, <i>a</i>	105
Pt cathodes for, stability of, <i>a</i>	34	Palladium-Gold-Titanium , metallisation, <i>a</i>	150
Gibbs, Wolcott , life and work of	101	Palladium-Hafnium , constitution diagram, <i>a</i>	146
Glass , Pd-Si compounds, properties of, <i>a</i>	111	Palladium-Hydrogen , high pressure study of	10
Heater , Cataheat catalytic, Pt metals in	16	Palladium-Iron , atomic ordering and magnetic hardening in, <i>a</i>	105
Howe, James Lewis , work of	140	liquid, activity of, <i>a</i>	28
Hydrogen , ultra-pure, production of	124	liquid, vapour pressure of, <i>a</i>	27
Iridium , Ettinghausen-Nernst coefficient of, <i>a</i>	106	magnetic properties of, <i>a</i>	105
compounds, Ca ₂ IrH ₃ , Sr ₂ IrH ₃ , preparation and structure of, <i>a</i>	28	magnetic properties and phase state of, <i>a</i>	106
Iridium Alloys, Iridium-Platinum , i.r. spectra of CO adsorbed on, <i>a</i>	105	powder, magnetic properties of, <i>a</i>	28
Iridium-Thorium, ThOs ₂ -ThIr ₂ pseudobinary system, <i>a</i>	146	temperature dependence of resistance of, <i>a</i>	105
Iridium Beryllide , Ir ₂ Be ₇ , structure of, <i>a</i>	62	Palladium-Iron-Silicon , magnetic states in, <i>a</i>	61
Iridium Carbonyls , preparation and properties of	50	Mössbauer spectra of, <i>a</i>	61
Iridium Trisilicide , crystal structure of, <i>a</i>	28	Palladium-Manganese , liquid, activity of, <i>a</i>	28
Metallisation , Ti-Pd-Au system, <i>a</i>	150	Palladium-Molybdenum , addition to stainless steels, <i>a</i>	111
Nitric Acid , concentrated, Pt-Rh gauze for, <i>a</i>	64	Palladium-Nickel , liquid, activity of, <i>a</i>	28
manufacture, NH ₃ oxidation for, <i>a</i>	147	liquid, vapour pressure of, <i>a</i>	27
Osmium , complexes, with CO and PPh ₃ , <i>a</i>	62	paramagnon scattering in, <i>a</i>	60
Ettinghausen-Nernst coefficient of, <i>a</i>	106	Palladium-Platinum , Fe-doped, magnetic scattering in, <i>a</i>	61
Osmium Alloys, Osmium-Thorium , ThOs ₂ -ThIr ₂ pseudobinary systems, <i>a</i>	146	low temperature resistivity and thermoelectric power of, <i>a</i>	145
Osmium Beryllide , Os ₂ Be ₁₇ , structure of, <i>a</i>	62	Palladium-Platinum-Iron , atomic ordering and magnetic hardening in, <i>a</i>	105
Osmium Carbonyl , reactions with PPh ₃ , <i>a</i>	62	ordering and magnetic properties in, <i>a</i>	27
preparation and properties of	50	Palladium-Rhodium , Fe-doped, magnetic scattering in, <i>a</i>	61
Osmium Pentafluoride , preparation and structure of, <i>a</i>	28	magnetic and electrical properties of, <i>a</i>	27
Oxidation of , NH ₃ , HNO ₃ manufacture by, <i>a</i>	147	Palladium-Rhodium-Iron , magnetic and electrical properties of, <i>a</i>	27
Palladium , compounds, K ₂ PdCl ₄ , crystal structure of, <i>a</i>	107	Palladium-Ruthenium-Gold , fabrication of, <i>a</i>	105
desorption of H ₂ from, <i>a</i>	145	Palladium-Silicon	49
high-temperature transport properties of, <i>a</i>	145	amorphous, deformation of, <i>a</i>	145
liquid, thermodynamic properties of, <i>a</i>	61	amorphous, resistance of	91
metallisation of plastics, <i>a</i>	147	liquid, activity of, <i>a</i>	28
organic chemistry of, book review	56	variation of expansion coefficient with stress, <i>a</i>	28
oxidation of, <i>a</i>	145	viscoelastic properties of glasses of, <i>a</i>	106
oxidation states in glass, <i>a</i>	34	Palladium-Silicon-Chromium , amorphous, resistivity of	91
Ag films on, misfit dislocations in, <i>a</i>	60	Palladium-Silver , desorption of H ₂ from, <i>a</i>	145
tensile properties of, effect of H ₂ on, <i>a</i>	27	diffusion units	124
thin films, growth of, <i>a</i>	145	line printing for electronics, <i>a</i>	151
thin films on Si, interdiffusion of, <i>a</i>	60	liquid, vapour pressure of, <i>a</i>	27
thin foils of, H ₂ absorption effects on, <i>a</i>	105	magnetic and electrical properties of, <i>a</i>	27
wire, adsorption of H ₂ on, <i>a</i>	27	oxidation of, <i>a</i>	145
Palladium Alloys, Palladium-Aluminium , transformations of, <i>a</i>	106	thick film pastes of, <i>a</i>	112
Palladium-Aluminium-Copper, phase diagram of, <i>a</i>	106	thin foils of, H ₂ absorption effects on, <i>a</i>	105
Palladium-Barium, composition of vapour over, <i>a</i>	28	Palladium-Silver-Copper , oxidation of, <i>a</i>	145
Palladium-Cerium-Lanthanum, electronic specific heat of, <i>a</i>	106	Palladium-Titanium , constitution diagram of, <i>a</i>	145
Kondo effect in, <i>a</i>	61	corrosion in HCl, <i>a</i>	111
Palladium-Cobalt, liquid, activity of, <i>a</i>	28	Palladium-Tungsten , liquid, vapour pressure of, <i>a</i>	27
liquid, vapour pressure of, <i>a</i>	27	phase diagram of, <i>a</i>	61
ordered alloys, <i>a</i>	145	Palladium Borides , preparation of, <i>a</i>	62
Palladium-Copper, liquid, activity of, <i>a</i>	28	Palladium Hydride , electronic energy bands of, <i>a</i>	146
liquid, vapour pressure of, <i>a</i>	27	Palladium Tetracarbonyl , preparation of, <i>a</i>	62
Palladium-Copper-Nickel , structure at 400–700°C, <i>a</i>	61	Petroleum Reforming , Pt-Re catalysts for, lead-free gasoline production using	42
Palladium-Gold , coatings on Ir, Ru, W, Mo, <i>a</i>	147	Platinum , black-body	123
thermodynamic properties of, <i>a</i>	60	chemical plating of, <i>a</i>	147
thick film pastes of, <i>a</i>	112	coating on Ni turbine blades	87
Palladium-Gold-Silver , Debye temperature and expansion of, <i>a</i>	60	complexes, K ₂ Pt(CN) ₄ Br ₆ ·3.2.3H ₂ O, electrical conductivity of, <i>a</i>	107
Palladium-Gold-Tellurium , superconductivity in, <i>a</i>	105	complexes, K ₂ Pt(CN) ₄ Br ₆ ·3.(H ₂ O) _n , one-dimensional metallic behaviour of, <i>a</i>	146
Palladium-Gold-Titanium , metallisation, <i>a</i>	150	complexes, K ₂ Pt(CN) ₄ Cl ₆ ·3.2.6H ₂ O, electrical conductivity of, <i>a</i>	107
Palladium-Hafnium , constitution diagram, <i>a</i>	146		
Palladium-Hydrogen , high pressure study of	10		
Palladium-Iron , atomic ordering and magnetic hardening in, <i>a</i>	105		
liquid, activity of, <i>a</i>	28		
liquid, vapour pressure of, <i>a</i>	27		
magnetic properties of, <i>a</i>	105		
magnetic properties and phase state of, <i>a</i>	106		
powder, magnetic properties of, <i>a</i>	28		
temperature dependence of resistance of, <i>a</i>	105		
Palladium-Iron-Silicon , magnetic states in, <i>a</i>	61		
Mössbauer spectra of, <i>a</i>	61		
Palladium-Manganese , liquid, activity of, <i>a</i>	28		
Palladium-Molybdenum , addition to stainless steels, <i>a</i>	111		
Palladium-Nickel , liquid, activity of, <i>a</i>	28		
liquid, vapour pressure of, <i>a</i>	27		
paramagnon scattering in, <i>a</i>	60		
Palladium-Platinum , Fe-doped, magnetic scattering in, <i>a</i>	61		
low temperature resistivity and thermoelectric power of, <i>a</i>	145		
Palladium-Platinum-Iron , atomic ordering and magnetic hardening in, <i>a</i>	105		
ordering and magnetic properties in, <i>a</i>	27		
Palladium-Rhodium , Fe-doped, magnetic scattering in, <i>a</i>	61		
magnetic and electrical properties of, <i>a</i>	27		
Palladium-Rhodium-Iron , magnetic and electrical properties of, <i>a</i>	27		
Palladium-Ruthenium-Gold , fabrication of, <i>a</i>	105		
Palladium-Silicon	49		
amorphous, deformation of, <i>a</i>	145		
amorphous, resistance of	91		
liquid, activity of, <i>a</i>	28		
variation of expansion coefficient with stress, <i>a</i>	28		
viscoelastic properties of glasses of, <i>a</i>	106		
Palladium-Silicon-Chromium , amorphous, resistivity of	91		
Palladium-Silver , desorption of H ₂ from, <i>a</i>	145		
diffusion units	124		
line printing for electronics, <i>a</i>	151		
liquid, vapour pressure of, <i>a</i>	27		
magnetic and electrical properties of, <i>a</i>	27		
oxidation of, <i>a</i>	145		
thick film pastes of, <i>a</i>	112		
thin foils of, H ₂ absorption effects on, <i>a</i>	105		
Palladium-Silver-Copper , oxidation of, <i>a</i>	145		
Palladium-Titanium , constitution diagram of, <i>a</i>	145		
corrosion in HCl, <i>a</i>	111		
Palladium-Tungsten , liquid, vapour pressure of, <i>a</i>	27		
phase diagram of, <i>a</i>	61		
Palladium Borides , preparation of, <i>a</i>	62		
Palladium Hydride , electronic energy bands of, <i>a</i>	146		
Palladium Tetracarbonyl , preparation of, <i>a</i>	62		
Petroleum Reforming , Pt-Re catalysts for, lead-free gasoline production using	42		
Platinum , black-body	123		
chemical plating of, <i>a</i>	147		
coating on Ni turbine blades	87		
complexes, K ₂ Pt(CN) ₄ Br ₆ ·3.2.3H ₂ O, electrical conductivity of, <i>a</i>	107		
complexes, K ₂ Pt(CN) ₄ Br ₆ ·3.(H ₂ O) _n , one-dimensional metallic behaviour of, <i>a</i>	146		
complexes, K ₂ Pt(CN) ₄ Cl ₆ ·3.2.6H ₂ O, electrical conductivity of, <i>a</i>	107		

Platinum (contd)	<i>Page</i>	Resistance Sensor, Pt wire in, stability of, <i>a</i>	<i>Page</i>
complexes, $K_{1-4}Pt(C_2O_4)_2 \cdot xH_2O$, proton injection in, <i>a</i>	63	Resistance Thermometers, Pd-Si-Cr, low temperature measurements using	91
complexes, <i>cis</i> -Pt(NH ₃) ₂ Br ₂ , two modifications of, <i>a</i>	107	Pd-Si-Cr, low temperature sensitivity of, <i>a</i>	35
complexes, <i>cis</i> -Pt(NH ₃) ₂ Cl ₂ , antileukaemia properties of	15	Pt, comparison with thermocouples, <i>a</i>	34
complexes, <i>cis</i> -Pt(NH ₃) ₂ Cl ₂ , immunosuppression by, <i>a</i>	29	Pt, performance of, <i>a</i>	67
complexes, <i>cis</i> -Pt(NH ₃) ₂ Cl ₂ , inhibition of DNA synthesis by, <i>a</i>	29	Rh-Fe, cryogenic work using	9
complexes, <i>cis</i> -Pt(NH ₃) ₂ Cl ₂ , suppression of graft-host reaction, <i>a</i>	146	Resistors, PdO/Ag-Pd, conductivity of, <i>a</i>	111
complexes, Pt(NH ₃) ₂ Cl ₄ , antileukaemia properties of	15	Ru ternary oxide thick film, <i>a</i>	150
complexes, Pt(NH ₃) ₂ Cl ₄ , immunosuppression by, <i>a</i>	29	Rhodium, complexes, (PPh₃)₃ClRh(I), dissociation in solution, <i>a</i>	62
complexes, <i>cis</i> -Pt(py) ₂ Cl ₂ , antitumour properties of, <i>a</i>	29	compounds, Ca ₂ RhH ₃ and Sr ₂ RhH ₃ , preparation and structure of, <i>a</i>	28
complexes, square planar, conduction mechanism in, <i>a</i>	146	oxidation states in glasses, <i>a</i>	34
complexes, with olefins and dienes, <i>a</i>	62	reaction of S with, <i>a</i>	27
compounds, K ₂ PtCl ₄ , crystal structure of, <i>a</i>	107	sputtered, coating on plastic	26
diffusivity and solubility of O ₂ in, <i>a</i>	105	thermoelectric power of, <i>a</i>	61
fabrication, precision in	123	with magnetic impurities, resistance anomaly in, <i>a</i>	106
freezing point of, new measurement of	9	Rhodium Alloys, Rhodium-Iron, cryogenic resistance thermometer	9
oxidation states in glasses, <i>a</i>	34	properties of metastable phases, <i>a</i>	61
purification of, and resistance ratio of substrate for BaO film adsorption, <i>a</i>	94	Rhodium-Manganese, structural and magnetic properties of, <i>a</i>	146
thin films, growth of, <i>a</i>	145	Rhodium-Nickel, electrical resistivity of, <i>a</i>	106
thin films on Si, interdiffusion in, <i>a</i>	60	heat capacity at low temperatures, <i>a</i>	61
wires, annealed and quenched, resistance of, <i>a</i>	27	Rhodium-Palladium, Fe-doped, magnetic scattering in, <i>a</i>	61
Platinum Alloys, Platinum-Barium, composition of vapour over, <i>a</i>	28	magnetic and electrical properties of, <i>a</i>	27
Platinum-Chromium-Nickel-Phosphorus, resistivity and susceptibility of, <i>a</i>	60	Rhodium-Palladium-Iron, magnetic and electrical properties of, <i>a</i>	27
Platinum-Cobalt, ordering and coercivity of, <i>a</i>	27	Rhodium-Platinum-Zirconium, internal oxidation of, <i>a</i>	60
permanent magnets	129	Rhodium Beryllide, Rh ₃ Be ₁₇ , structure of, <i>a</i>	62
Platinum-Copper, structure of	48	Rhodium Carbonyls, preparation and properties of	50
Platinum-Gold, coatings on Ir, Ru, W, Mo, <i>a</i>	147	Ruthenium, complexes, with N₂, <i>a</i>	62
diffusion in thin films, <i>a</i>	145	compounds, LaRuO ₃ , solid solutions with SrRuO ₃ , <i>a</i>	62
dispersion hardening in, <i>a</i>	27	compounds, La _x Sr _{1-x} RuO ₃ , properties of, <i>a</i>	62
getter gauze for Pt capture, <i>a</i>	30	compounds, preparation and structure of, <i>a</i>	28
Platinum-Iridium, i.r. spectra of CO adsorbed on, <i>a</i>	105	oxidation states in glasses, <i>a</i>	34
Platinum-Iron-Manganese, age-hardening of, <i>a</i>	60	ternary oxides in thick film resistor glazes, <i>a</i>	150
Platinum-Iron-Nickel, ordering and magnetic properties in, <i>a</i>	27	Ruthenium Alloys, Ruthenium-Molybdenum, as-cast, structure and physical properties of, <i>a</i>	146
Platinum-Nickel, diffusivity and solubility of O₂ in, <i>a</i>	105	Ruthenium-Niobium, phase transformations in, <i>a</i>	106
ferro- to paramagnetic transition in, <i>a</i>	105	Ruthenium-Niobium-Zirconium, study of, <i>a</i>	106
Platinum-Palladium, Fe-doped, magnetic scattering in, <i>a</i>	61	Ruthenium-Palladium-Gold, fabrication of, <i>a</i>	105
low temperature resistivity and thermoelectric power of, <i>a</i>	145	Ruthenium-Platinum, solubility relationships in	88
Platinum-Palladium-Iron, ordering and magnetic hardening in, <i>a</i>	105	Ruthenium-Scandium, phases in, <i>a</i>	62
ordering and magnetic properties in, <i>a</i>	27	Ruthenium-Titanium, corrosion in HCl, <i>a</i>	111
Platinum-Rhodium, reaction of S with, <i>a</i>	27	Ruthenium Beryllide, Ru₃Be₁₇, structure of, <i>a</i>	62
Platinum-Rhodium-Zirconium, internal oxidation of, <i>a</i>	60	Ruthenium Carbonyls, preparation and properties of	50
Platinum-Ruthenium, solubility relationships in	88	Ruthenium Oxide, RuO₃, enthalpy of, <i>a</i>	107
Platinum-Zirconium, internal oxidation of, <i>a</i>	60	RuO ₃ , thick films, <i>a</i>	150
Platinum Carbonyls, preparation and properties of	50	RuO ₃ , volatilisation of, <i>a</i>	28
Platinum Metals, bibliography by Howe	140	Semiconductors, Pt-Si layer on, <i>a</i>	34
complexes, development in U.S.A., <i>a</i>	63	Sputtering of, Platinum, on Teflon or parylene, <i>a</i>	29
complexes, with olefins, synthesis, structure and reactions of, <i>a</i>	62	Rhodium, on polyester strips	26
effect on W sintering, <i>a</i>	28	Thermocouples, Pt:Rh-Pt, comparison with resistance thermometers, <i>a</i>	34
F compounds of	118	Pt:Rh-Pt, correction graph for, <i>a</i>	35
hydride complexes of, <i>a</i>	146	Pt:Rh-Pt, effect of pressure on e.m.f. of, <i>a</i>	35
lattice parameters of, <i>a</i>	106	Pt:Rh-Pt, furnace temperature control using, <i>a</i>	67
organometallic complexes of, report of Moscow conference on	22	Pt:Rh-Pt, international reference tables for	2
physical properties of, table of	59	Pt:Rh-Pt, pressure dependence of, <i>a</i>	67
Platinum Oxide, Pt₃O₄, preparation and structure of, <i>a</i>	62	Pt:Rh-Pt, sensor-lance for BOF control, <i>a</i>	35
PtO ₂ , gaseous, thermodynamics of, <i>a</i>	28	Pt:Rh-Pt, thermal noise measurement, <i>a</i>	35
Platinum Tetracarbonyl, preparation of, <i>a</i>	62	Pt, Rh, Ir, W and Re in, measurement above 1500°C, <i>a</i>	67
Platinum Tetrachloride, crystal structure of, <i>a</i>	107	Rh-Pt:Rh-Pt, sensor-lance for BOF control, <i>a</i>	35
Pollution, car exhaust, Pt catalysts for	74	Thick Films, Pd-Au and Pd-Ag, pastes, rheology of, <i>a</i>	112
		RuO ₃ , <i>a</i>	150
		Wollaston, William Hyde, Pt thermometer of	57