

SUBJECT INDEX TO VOLUME 41

	Page	Page
<i>a</i> = abstract		
Acetone , from CO ₂ reduction, at Ru electrodes, <i>a</i>	143	
Acetylenes , dimerisation, by Na ₂ PtCl ₆ ·6H ₂ O, <i>a</i>	193	
electrocatalytic hydrogenation, <i>a</i>	43	
polymerisation, using [Pd(μ-X) ₂ (PBU' ₃) ₂], <i>a</i>	89	
semihydrogenation, over Pd(OAc) ₂ , <i>a</i>	92	
Alcohols , chlorophenols, degradation with Pd/Fe	2	
ethyl, catalytic oxidation by giant Pd clusters, <i>a</i>	46	
from CO ₂ + H ₂ , over Rh ₁₀ Se	166	
methyl, carbonylation, by Rh-PVP colloid, <i>a</i>	145	
with Ir catalysts	8	
from CO ₂ reduction, at Ru electrodes, <i>a</i>	143	
oxidation, by Ru-Pt alloy electrodes for DMFCs, <i>a</i>	47	
on Pt fuel cell electrodes, <i>a</i>	194	
sensor, fluorescence lifetime-based, <i>a</i>	144	
unsaturated, synthesis, using B-promoted Ir catalyst	176	
Aldehydes , detection, <i>a</i>	44	
Aldol Reactions , using RuH ₂ (PPh) ₃ , <i>a</i>	47	
Alfred Werner , history	34	
Alkanes , oxidation, by Pd/CuCl ₂ , <i>a</i>	193	
photocatalytic, by <i>trans</i> -[OsO ₂ (CN) ₂ (dpphen)], <i>a</i>	192	
Alkenes , hydrogenation, using RhCl ₃ ·xH ₂ O, Pd(OAc) ₂ , <i>a</i>	92	
using TiO ₂ /Pt/silicalite-1 composites, <i>a</i>	92	
oxidation, by RuL(CO)(EtOH), <i>a</i>	93	
Alkynes , coupling, using Pd(OAc) ₂ , <i>a</i>	93	
hydration, by HPTCl(CO) ₂ , <i>a</i>	93	
hydrogenation, using RhCl ₃ ·xH ₂ O, Pd(OAc) ₂ , <i>a</i>	92	
terminal, dimerisation, by Ru complexes, <i>a</i>	94	
Allyl Acetals , isomerisation, <i>a</i>	47	
Allyl Alcohol , hydroformylation, by Rh/zeolites	132	
Allyl Ethers , isomerisation, <i>a</i>	47	
Allylic Alkylation , acyclic, using [Ir(cod)Cl] ₂ , <i>a</i>	146	
Amidation , amines using RuH ₂ (PPh) ₃ , <i>a</i>	47	
Ammonia , synthesis, over Ru-BaO/active C, <i>a</i>	193	
Anilines , chloro-substituted, using B-promoted Ir	176	
Arenes , production, from cycloalkanes, Ir catalysed, <i>a</i>	94	
N-Arylhydroxylamines , synthesis, using B-Ir/C	176	
Azoxybenzenes , synthesis, using B-Ir/C	176	
Ballard , development of PEMFCs	102, 171	
Benzene , 1,3,5-substituted, Pd catalysed, synthesis, <i>a</i>	145	
Bertrand Pelletier , history	86	
Book Reviews , "Catalysis of Organic Reactions", Proc. 16th conf. on Catalysis of Organic Reactions, Atlanta, Georgia, 1996	22	
"Chemistry of Precious Metals"	164	
"Metallurgy and Mechanical Behaviour of Iridium"	85	
"Synthetic Coordination Chemistry: Principles and Practice"	79	
p-Bromotoluene , hydrogenolysis, by Pd colloids, <i>a</i>	193	
1,3-Butadiene , hydrogenation, by Pd ₆₀ Cu ₄₀ , <i>a</i>	145	
over Pt ₂ Ge, Pt ₃ Ge, Pt ₆ Ge, <i>a</i>	192	
Cadmium , in water, detection	11	
Cancer , drugs, <i>a</i>	47, 147	
Canola Oil , giving hydrocarbons, over Pt/HZSM-5, <i>a</i>	192	
Capacitors , thin-film, SrRuO ₃ /Pb(Zr, Ti)O ₃ /SrRuO ₃ , <i>a</i>	194	
Carbon Oxides , CO ₂ , reaction with H ₂ , over Rh ₁₀ Se	166	
reduction, at Ru electrodes, <i>a</i>	143	
CO, chemisorption on Cu ₂ Pt(111) alloy surfaces, <i>a</i>	41	
electrooxidation, by PtRu alloy colloids, <i>a</i>	146	
oxidation, over Pd/zeolite, <i>a</i>	193	
Carbonylation , ethyl 2-phenylethynylbenzoate, <i>a</i>	193	
MeOH, by Rh-PVP colloid, <i>a</i>	145	
to acetic acid using Ir and Rh catalysts	8	
using Ir, "Cativa Process"	9	
Rh(PPh ₃)Cl, Ru(PPh ₃)Cl, mechanism, <i>a</i>	45	
Carboplatin , detection at low concentrations in vivo, <i>a</i>	47	
Carboxylic Acids , β,γ-unsaturated, hydrogenation, <i>a</i>	47	
Cassini , mission to Saturn	154	
Catalysis , see also Photocatalysis		
heterogeneous, <i>a</i>	45, 92-93, 145, 192-193	
homogeneous, <i>a</i>	46-47, 93-94, 145-146, 193-194	
Catalysts , automotive, 3-way, at the SAE conference	76	
at Fourth International Congress on Catalysis and Automotive Pollution Control	128	
manufacture, by Johnson Matthey, in Malaysia	114	
pgm, for heat and power cogeneration unit	64	
Catalysts, Iridium , B-Ir/C, hydrogenation of organics	176	
Iridium Complexes , [(COD)Ir(LL)]ClO ₄ , [(COD)IrCl] ₂ , phenylacetylene polymerisation, <i>a</i>	47	
[Ir(CO) ₂ (I)] ₂ for MeOH carbonylation	8	
[Ir(cod)Cl] ₂ , with P ligands, for allylic alkylation, <i>a</i>	146	
IrH ₂ [C ₆ H ₃ -2,6-(CH ₂ PBU' ₃) ₂], dehydrogenation of cycloalkanes, <i>a</i>	94	
Ir(I) chiral phosphanodihydrooxazoles, for imine hydrogenation, <i>a</i>	194	
Osmium Complexes , <i>trans</i> -[OsO ₂ (CN) ₂ (dpphen)], photocatalytic alkane oxidation, <i>a</i>	192	
Palladium , colloids, Heck reactions, <i>a</i>	46	
hydrogenolysis of <i>p</i> -bromotoluene, <i>a</i>	193	
giant clusters, oxidation of EtOH, <i>a</i>	46	
for Heck reactions	11, 23, 163	
Pd metallic, nitrobenzene hydrogenation, <i>a</i>	45	
Pd nanoparticles, cyclohexene hydrogenation, <i>a</i>	145	
Pd ₆₀ Cu ₄₀ , 1,3-butadiene hydrogenation, <i>a</i>	145	
Pd-Cu/KL-zeolites, properties, <i>a</i>	45	
Pd-Ni-H/Y-type zeolites, hydrocracking, <i>a</i>	45	
Pd/CuCl ₂ , oxidation of alkanes, <i>a</i>	193	
Pd/Fe, for decontamination of ground water	2	
Pd/Ni, colloids, for hydrogenation of nitrobenzene	7	
Pd/polymer electrodes, acetylene hydrogenation, <i>a</i>	43	
Pd/zeolite, oxidation of CO, hydrocarbons, <i>a</i>	193	
PdMo/HY zeolites, for hydrodesulfurisation, <i>a</i>	92	
PtPd/H-Beta, PtPd/USY zeolites, isomerisation and hydrocracking of heptane, <i>a</i>	145	
Palladium Complexes , C ₆₀ [Pd(OAc) ₂ (PPh ₃)], for hydrogenation, <i>a</i>	193	
[Pd(μ-1) ₂ (PBU' ₃) ₂], acetylene polymerisation, <i>a</i>	89	
PdCl ₂ (PPh ₃) ₂ /PPh ₃ , electroreduction of propargyl acetates, <i>a</i>	43	
Pd(dba) ₂ /PPh ₃ , trimerisation of 1,3-diynes, <i>a</i>	145	
Pd(OAc) ₂ , alkyne coupling, conjugated enynes, <i>a</i>	93	
hydrogenation, alkenes, alkynes, nitrobenzene, <i>a</i>	92	
polyketone synthesis	10	
semihydrogenation of acetylenes, <i>a</i>	92	
Pd(PPh ₃) ₄ , 2-cyclohexenylsilane cross-coupling, <i>a</i>	93	
Pd(PPh ₃) ₄ /K ₂ PO ₄ /DMF, Suzuki couplings, <i>a</i>	93	
Platinum , electrodes, nitrate reduction, <i>a</i>	43	
Langmuir-Blodgett films, H ₂ evolution, <i>a</i>	43	
nanoparticles, cyclohexene hydrogenation, <i>a</i>	145	
Pt colloids, [Pt(CO) ₂] _n ²⁺ , on C black, fuel cells, <i>a</i>	94	
Pt wire, for CH ₄ ignition, <i>a</i>	144	
Pt-Ce/KL, Pt/CeKL zeolites, reforming activity, <i>a</i>	45	
Pt-Sn/γ-Al ₂ O ₃ , for conversion of <i>n</i> -hexane, <i>a</i>	145	
Pt-TiO ₂ , photocatalytic H ₂ O decomposition, <i>a</i>	145	
Pt/Al ₂ O ₃ , for NO reduction, <i>a</i>	92, 192	
Pt/γ-Al ₂ O ₃ membranes, hydrogenation of <i>p</i> -chloronitrobenzene, <i>a</i>	145	
Pt/HZSM-5, hydrocarbons from canola oil, <i>a</i>	192	
Pt/SnO ₂ , Pt/SnO ₂ /RuO ₂ , H ₂ photoproduction, <i>a</i>	91	
Pt/TiO ₂ , PtO ₂ /CdS, hydrogenation of Schiff bases, <i>a</i>	91	
Pt/TiO ₂ , with silicalite-1, alkene hydrogenation, <i>a</i>	92	
Pt/Y-zeolite, hydrogenation of crude oil fractions	32	
Pt/zeolites, for reforming <i>n</i> -hexane, <i>a</i>	192	
Pt/ZSM-5, for NO _x reduction	75	
PtPd/H-Beta, PtPd/USY zeolites, for isomerisation and hydrocracking of heptane, <i>a</i>	145	
Platinum Alloys , Pt-Sn(MP), fuel cells, <i>a</i>	94	
Platinum Complexes , <i>cis</i> -[(PPh ₃) ₂ Pt(SH) ₂], for removal of S from H ₂ S	32	
HPTCl(CO) ₂ , for alkyne hydration, <i>a</i>	93	
Karstedt's catalyst, for hydrosilylation	66	
Na ₂ PtCl ₆ ·6H ₂ O, acetylene dimerisation, <i>a</i>	193	

	<i>Page</i>	<i>Page</i>
Catalysts, Platinum Complexes (cont.)		
[(PPh ₃) ₂ PtS ₂ O], for hydrodesulfurisation	32	
Pt(CH ₃ COO) ₄ , hydrogenation of hydrocarbons, <i>a</i>	46	
Pt(PPh ₃) ₄ , Pt(dba) ₃ , diboration of alka-1,3-dienes, <i>a</i>	46	
(S-ethano-9)PtCl ₂ , polymerisation of ethylene, <i>a</i>	46	
Platinum Compounds , Pt ₂ Ge, PtGe, PtGe, for hydrogenation of 1,3-butadiene, <i>a</i>	192	
Rhodium , Rh ₂ Se, for EtOH synthesis	166	
Rh-PEVV, for olefin biphasic hydroformylation, <i>a</i>	94	
Rh-PVP colloid, for MeOH carbonylation, <i>a</i>	145	
zeolite-encapsulated, for hydroformylation	132	
Rhodium Complexes , [2.2]PHANEPHOS Rh ⁺ OTf ⁻ , enantioselective hydrogenation, reduction	165	
[(COD)Rh(LL)]ClO ₄ , [(COD)RhCl] ₂ , for polymerisation of phenylacetylene, <i>a</i>	47	
Rh ₂ complex in DMSO, hexene isomerisation, <i>a</i>	93	
hydroformylation of olefins, <i>a</i>	46	
Na ₂ [Rh ₂ (CO) ₁₀], hydroformylation, of 2,4,4-trimethyl,1-pentene, <i>a</i>	94	
Rh ₂ (CO) ₁₀ , carbonylation of ethyl 2-phenylethynylbenzoate, <i>a</i>	193	
RhCl ₃ ·xH ₂ O, hydrogenation of alkenes, alkynes, <i>a</i>	92	
RhCl(PPh ₃) ₃ , RhH(PPh ₃) ₄ , hydrogenation of acrylonitrile-butadiene copolymers, <i>a</i>	93	
Rh(CO) ₂ Acac, for hydroformylation, <i>a</i>	94	
[Rh(CO) ₂ (I)] ⁺ , for MeOH carbonylation	8	
[(RhCp ⁺) ₂ (μ-CH ₃) ₂ (CH ₃ CN) ₂](BF ₄) ₂ , [(RhCp ⁺) ₂ (μ-CH ₃) ₂ (CO) ₂](BF ₄) ₂ , ethyl acrylate dimerisation, <i>a</i>	146	
Rh(II) acetate, cyclisations, cycloadditions, <i>a</i>	46	
(S-ethano-9)RhCl ₃ , polymerisation of ethylene, <i>a</i>	46	
[(sulphos)Rh(cod)], hydrogenation, hydrogenolysis, <i>a</i>	193	
Ruthenium , fullerene-based, from Ru ₃ (CO) ₁₂ , 2-cyclohexenone hydrogenation, <i>a</i>	92	
Pt/SnO ₂ /RuO ₂ , H ₂ photoproduction, <i>a</i>	91	
Ru-BaO/active C, for NH ₃ synthesis, <i>a</i>	193	
RuS ₂ clusters in Y zeolite, tetralin hydrogenation, <i>a</i>	93	
Ruthenium Complexes , (η ² -naphthalene)(η ² -COD)-Ru(0), isomerisation of acetals, ethers, <i>a</i>	47	
(PPh ₃) ₃ RuCl ₂ , [(C ₆ H ₅ COHOC ₆ H ₅)(μ-H)]-[(CO) ₂ Ru] ₂ , oxidation of steroids, <i>a</i>	47	
RuCl ₂ (arene)(PR ₃) precursors, ROMP of olefins, <i>a</i>	194	
RuCl ₂ (PPh ₃) ₃ , indole synthesis, <i>a</i>	146	
methyl methacrylate polymerisation, <i>a</i>	146	
olefin hydrogenation, <i>a</i>	146	
RuH ₂ (H ₂) ₂ (PCy ₃) ₂ , C ₆ H ₆ thermal decomposition, <i>a</i>	90	
RuH ₂ (PPh ₃) ₄ , hydration, amidation, <i>a</i>	47	
RuL(CO)(EtOH), alkene oxidation, <i>a</i>	93	
Ru(OCOCH ₃) ₂ [(S)-H ₂ -BINAP], hydrogenation of carboxylic acids, <i>a</i>	47	
Ru(TPP)CO, Ru(TMP)CO, Ru(TDCIPP)CO, oxidation of steroids, <i>a</i>	146	
RuTp(PPh ₃) ₃ Cl, RuTp(PPh ₃)(py)Cl, RuTp(PPh ₃) ₂ H, dimerisation of terminal alkynes, <i>a</i>	94	
"Cativa Process", for MeOH carbonylation using Ir	9	
CD-ROM Review , "Database of Palladium Chemistry: Reactions, Catalytic Cycles and Chemical Parameters"	141	
Chemisorption , CO on Cu ₃ Pt(111) alloy surfaces, <i>a</i>	41	
Chlor-alkali , production	54	
<i>p</i> -Chloronitrobenzene, hydrogenation, on Pt/γ-Al ₂ O ₃ , <i>a</i>	145	
Chlorophenols , degradation with Pd/Fe	2	
Chromium , detection, in environmental samples, <i>a</i>	192	
Clusters , Na ₂ [Rh ₂ (CO) ₁₀], hydroformylation, of 2,4,4-trimethyl,1-pentene, <i>a</i>	94	
Pd catalysts, oxidation of EtOH, <i>a</i>	46	
Pd, nanostructured, stabilised, self-assembly on C, <i>a</i>	89	
Pd/Ni, as hydrogenation catalysts	7	
[Pt ₂ (CO) ₈] _n ²⁻ on C black, for fuel cells, <i>a</i>	94	
RuS ₂ , in Y zeolite, hydrogenation of tetralin, <i>a</i>	93	
Coatings , see also Electrodeposition		
Pd, for detection of organo Hg and Se, <i>a</i>	45	
Pd, by OMCVD, <i>a</i>	44	
Pt, deposition, from Q-salt electroplating baths electrodeposition, onto ceramic Ebonex, <i>a</i>	144	
Pt, RuO ₂ , RuO ₂ /TiO ₂ , IrO ₂ , TiO ₂ /RuO ₂ /AlSbO ₃	54	
Pt-Al, on superalloys, corrosion behaviour, <i>a</i>	95	
Cold Start , automotive, SAE conference	76	
Colloids , Pd catalysts, Heck reactions, <i>a</i>	46	
Pd, hydrogenolysis of <i>p</i> -bromotoluene, <i>a</i>	193	
Pd/Ni, PVP protected, hydrogenation catalysts	7	
Pt, on C black, for fuel cells, <i>a</i>	94	
end products of hydrosilylation	66	
nanoparticles, synthesis, <i>a</i>	41	
particles, electrodes, PEC solar cells, <i>a</i>	44	
Pt, Pd, for cyclohexene hydrogenation, <i>a</i>	145	
Pt-carbonyl, preparation, <i>a</i>	190	
Pt-Pd polymer protected, preparation, <i>a</i>	190	
PtRu alloys, for CO, CO/H ₂ electrooxidation, <i>a</i>	146	
Rh-PVP, for MeOH carbonylation, <i>a</i>	145	
Conferences , 5th Grove Fuel Cell Symposium, London, 22–25 September, 1997	11, 171	
5th International Symposium on Hydrogen in Metals, Les Diablerets, Switzerland, 23–30 August, 1996	33	
First Anglo-Dutch Symposium, Sheffield, 18 September, 1996	8	
Fourth International Congress on Catalysis and Automotive Pollution Control, Belgium, 9–11 April, 1997	128	
HYPOTHESIS-II, Grimstad, Norway, 18–22 August, 1997	163	
Pd and Pd Alloy Membranes Applied to Hydrogen Permeation and Reaction, Talloires, France, 19–20 August, 1996	33	
SAE, Detroit, U.S.A., 24–27 February, 1997	76	
Corrosion , Pt-Al coatings on superalloys, <i>a</i>	95	
Pt-Ti alloys, <i>a</i>	95	
Corrosion Protection , <i>a</i>	95	
Crystallography , properties, of Pt of Rh	12	
	184	
Cyclisation , cycloaddition, Rh(II) acetate catalysed, <i>a</i>	46	
Cycloaddition , cyclisation, Rh(II) acetate catalysed, <i>a</i>	46	
Cyclohexane , synthesis, using C ₆₀ [Pd(OAc) ₂ (PPh ₃) ₂], <i>a</i>	193	
from cyclohexene, over Pt, Pd colloids, <i>a</i>	145	
Cyclohexene , hydrogenation, by Pt, Pd colloids, <i>a</i>	145	
using C ₆₀ [Pd(OAc) ₂ (PPh ₃) ₂], <i>a</i>	193	
Dechlorination , hydrocarbons using palladised iron	2	
Dehydrogenation , cycloalkanes, by IrH ₃ [C ₆ H ₅ -2,6-(CH ₃) ₂ PBu ₃] ₂ , <i>a</i>	94	
Dental , Pd in Ag-Sn-Cu dental amalgam, <i>a</i>	147	
Deposition , see also Electrodeposition		
CVD, Pd thin gas-tight membranes, <i>a</i>	45	
OMCVD, Pd thin films, <i>a</i>	44	
Pd microparticles on polymer film electrodes, <i>a</i>	43	
pulsed laser, conductive SrRuO ₃ thin films, <i>a</i>	44	
SrTi _{1-x} Ru _x O _{3-δ} thin films, on SrTiO ₃ , <i>a</i>	91	
Detectors , see Sensors		
Diboration , alka-1,3-dienes using Pt(0) complexes, <i>a</i>	46	
Diesel Engines , pollution, at the SAE conference	76	
emissions, at Fourth International Congress on Catalysis and Automotive Pollution Control	128	
NOx reduction, by Pt/ZSM-5 catalyst	75	
2,3-Dihydro[b]benzothiophene , production, by hydrogenation, over [(sulphos)Rh(cod)], <i>a</i>	193	
Dimerisation , acetylene, by Na ₂ PtCl ₆ ·6H ₂ O, <i>a</i>	193	
ethyl acrylate, by dinuclear Rh complexes, <i>a</i>	146	
terminal alkynes, by Ru complexes, <i>a</i>	94	
Diphenylacetylene , hydrogenation, using C ₆₀ [Pd(OAc) ₂ (PPh ₃) ₂], <i>a</i>	193	
1,2-Diphenylethane , by hydrogenation, using C ₆₀ [Pd(OAc) ₂ (PPh ₃) ₂], <i>a</i>	193	
1,3-Diynes , Pd catalysed trimerisation, <i>a</i>	145	
DNA , determination, <i>a</i>	194	
Electrical Connections , between Pt wires, <i>a</i>	44	
Electrical Contacts , Au/Ge/Pd/GaAs, Au/Ti/Ge/Pd/GaAs, Au/Mo/Ti/Ge/Pd/GaAs, <i>a</i>	95	
ohmic contacts, Pd-Ge based, effects of Ti-Pt or Ti-Pt-Au capping layers, <i>a</i>	147	
Pd/Zn/Pd, to <i>p</i> -type GaP, <i>a</i>	194	
Pt/Ti/Au, with minimised contact resistance, <i>a</i>	147	

	Page		Page
Electrocatalysis , aliphatic aldehydes, by Pt-Pd alloy electrode, amperometric detection, <i>a</i>	44	Fuel Cells , <i>a</i>	47, 94-95, 146, 194
Electrocatalysts , see Electrodes, Fuel Cells and Catalysts		5th Grove Fuel Cell Symposium	11, 171
Electrochemistry , <i>a</i>	43, 90, 143, 191	catalysts, $[Pt_3(CO)_6]_n^2$ or Pt colloids, on C black, <i>a</i>	94
noble metal electrodes, applications	54	DMFCs, Pt-Ru alloy electrodes, <i>a</i>	47
treatment of low level nuclear wastes, <i>a</i>	144	using Pt-Ru/C and Pt/C catalysts, <i>a</i>	94
Electrocrystallisation , between Pt wires, <i>a</i>	44	electrodes, catalysts, for PEMFCs, DMFCs	54
of $[Pt(en)_2][PtCl_2(en)](ClO_4)_4$, <i>a</i>	90	MeOH oxidation, with Pt nanoparticles, <i>a</i>	194
Electrodeposition , see also Coatings and Deposition		for PAFCs, <i>a</i>	43
Electroless Plating , <i>a</i>	44, 91, 144	HYPOTHESIS-II	163
Pt, from Pt 5Q plating bath, onto ceramic Ebonex, <i>a</i>	144	PEMFCs, progress in design, cost reduction	102
from Q-salt baths	21	with ultra low Pt loaded electrodes, <i>a</i>	146
nanoparticles, on MeOH fuel cell electrodes, <i>a</i>	194	Pt-W electrocatalyst, PAFC cathodes, <i>a</i>	95
Electrodes , anodes, dimensionally stable	53	Pt-Sn(IMP) alloy for, <i>a</i>	94
platinised Ti, for oxidations, electrosyntheses	54	Fullerenes , C_{60} , C_{70} , with organometallic hydrides, <i>a</i>	42
Pt-Ru/C, Pt/C, for DMFCs, <i>a</i>	94	complexes, $[Pt(\eta^2-C_{60})(L-L)]$, <i>a</i>	142
RuO ₂ , RuO ₂ /TiO ₂ , IrO ₂ , TiO ₂ /RuO ₂ /AlSbO ₄	54	supports for Pd, Ru catalysts, <i>a</i>	92, 193
Ti/IrO ₂ -Ta ₂ O ₅ , properties, <i>a</i>	43	Glucose , detection, <i>a</i>	91
Bi₂Ru₂O₁₁ , for oxidations, <i>a</i>	143	Guanine , oxidation, in DNA, <i>a</i>	144
cathodes, Pt-W oxide-based, for PAFCs, <i>a</i>	95	Hall Effect , in CaRuO ₃ , SrRuO ₃ thin films, <i>a</i>	41
Pt/Ru coated, in chlor-alkali industry	54	in Sr ₂ RuO ₄ superconductor, <i>a</i>	41
film-coated, C-fibre + Pd, for hydrogenations, <i>a</i>	191	Heck Reactions , Pd catalysed	11, 23
Ir, microelectrode, for trace metal detection	11	Pd colloid catalysed, <i>a</i>	46
Ir-based Hg, for measuring trace Cr and U, <i>a</i>	192	Pd on porous glass catalysts	163
Pd, polymer film, for acetylene hydrogenation, <i>a</i>	43	Heptane , isomerisation, hydrocracking, <i>a</i>	145
for PEMFCs, comparisons	102	Hex-1-ene , hydrogenation, by $C_{60}[Pd(OAc)_2(PPh_3)]_n$, <i>a</i>	193
with ultra low Pt loading, <i>a</i>	146	Hexane , production, using $C_{60}[Pd(OAc)_2(PPh_3)]_n$, <i>a</i>	193
photo, <i>n</i> -TiO ₂ /Ti SC-SEP/Pt, in solar cell, <i>a</i>	143	<i>n</i>-Hexane , conversion, over Pt-Sn/ γ -Al ₂ O ₃ , <i>a</i>	145
photocathodes, Pd thin films, for vacuum gauge, <i>a</i>	45	reforming, over Pt/zeolite catalysts, <i>a</i>	192
Pt-coated <i>p</i> -Si, H ₂ evolution, <i>a</i>	44	1-Hexene , hydroformylation, by Rh/zeolites	132
poly(calixarene-[Ru(bpy) ₃] ²⁺) modified, <i>a</i>	90	Hexene , isomerisation, by Rh ₂ complex in DMSO, <i>a</i>	93
Pt, dual-disk microelectrode, properties, <i>a</i>	44	History , Alfred Werner's pgm research	34
for glucose detection, <i>a</i>	91	Bertrand Pelletier, preparation of malleable Pt	86
loaded, in PEMFCs	102	HIV , protease inhibitor, Rh catalyst for	165
microdisk, nitrite determination, <i>a</i>	91	Humidity , sensor, <i>a</i>	92
particle modified <i>n</i> -Si, PEC solar cells, <i>a</i>	44	Hydration , alkynes, by HPtCl(CO) ₂ , <i>a</i>	93
Pt alloys/C, in H ₂ PO ₄ , properties, <i>a</i>	43	nitriles using RuH ₂ (PPh ₃) ₄ , <i>a</i>	47
Pt, Au, catalytic nitrate reduction, <i>a</i>	43	Hydrocarbons , dechlorination with Pd/Fe	2
Pt, Pt/polymer, H ₂ oxidation, kinetics, <i>a</i>	90	from canola oil, using Pt/HZSM-5, <i>a</i>	192
Pt, Pt/Ru, gas diffusion, for PEMFCs, DMFCs	54	gas, sensors for, using Schottky diodes, <i>a</i>	194
Pt-Pd/C, detection of aldehydes, <i>a</i>	44	hydrogenation, catalysed by Pt complex, <i>a</i>	46
Pt-Ru/C, MeOH oxidation, DMFCs, <i>a</i>	47	oxidation, over Pd/zeolite, <i>a</i>	193
Pt/Ti, bottom electrodes, for PZT capacitors, <i>a</i>	147	traps, SAE conference	76
Pt/Ti, three dimensional	54	Hydrocracking , DMBDT, <i>a</i>	45
Pt/YSZ, Pt/CeO ₂ /YSZ, for NO reduction, <i>a</i>	143	heptane, over PtPd/H-Beta, PtPd/USY zeolites, <i>a</i>	145
PtRu colloids, for fuel cells, <i>a</i>	146	Hydrodesulfurisation , crude oil	8
rhodanised graphite, H ₂ adsorption and evolution, <i>a</i>	90	dibenzothiophene and diesel oil,	
RuO ₂ -coated Ti, for O ₂ reduction, <i>a</i>	143	over PdMo/HY zeolite catalysts, <i>a</i>	92
RuOx, modified, for CO ₂ reduction, <i>a</i>	143	Hydroformylation , 1-hexene, styrene, allyl alcohol,	
SrRuO ₃ , polycrystalline, in thin film capacitors, <i>a</i>	194	by zeolite-encapsulated Rh catalysts	132
Electroless Plating , see also Electrodeposition		2,4,4-trimethyl,1-pentene, by Na ₂ [Rh ₁₂ (CO) ₃₀], <i>a</i>	94
Pd layers from Pd acetylacetonate, laser-assisted	7	olefins, by Rh complex catalysts, <i>a</i>	46
Emission , visible light from Pt/Si contacts, <i>a</i>	43	by Rh-PEVV, <i>a</i>	94
Energy , electronic, transfer, Ru→Os,		reactions, book review	23
in (ttp)Ru(tpy-ph-bco-ph-tpy)Os(tpp) ⁴⁺ , <i>a</i>	90	using Rh(CO) ₂ Acac, with phosphoramidite ligands, <i>a</i>	94
Engines , for combined heat and power unit	64	Hydrogen , absorption on Pd-Y alloys, <i>a</i>	41
Esterification , alcohols with nitriles, RuH ₂ (PPh ₃) ₄ , <i>a</i>	47	activation, at <i>trans</i> -Ir(CO)L ₂ X, <i>a</i>	190
Ethyl Acrylate , dimerisation, by dinuclear Rh, <i>a</i>	146	at HYPOTHESIS-II	163
Ethyl 2-phenylethynylbenzoate , carbonylation, <i>a</i>	193	electrocatalysis, adsorption, evolution, on Rh/C, <i>a</i>	90
Ethylene , polymerisation, <i>a</i>	46	evolution, photoinduced, at platinised LB films, <i>a</i>	43
2-Ethylthiophenol , by hydrogenolysis, preparation over [(sulphos)Rh(cod)], <i>a</i>	193	at Pt-coated <i>p</i> -Si photocathodes, <i>a</i>	44
		at Pt-loaded porphyrin films, <i>a</i>	191
Films , see also Thin Films		H ₂ /CO, electrooxidation, at Pt _{1.5} Mo _{2.5} , <i>a</i>	143
poly[<i>N</i> -(5-hydroxypentyl)pyrrole]-coated		oxidation, at Pt, Pt/polymer, electrodes, <i>a</i>	90
C-fibre + Pd electrode, for hydrogenations, <i>a</i>	191	permeation, in Pd and Pd alloys	33
Pt, as bottom electrodes for PZT capacitors, <i>a</i>	147	photoproduction, photoelectrochemical solar cell, <i>a</i>	143
Pt doped TiO ₂ , photocatalytic activity, <i>a</i>	143	by Pt/SnO ₂ , Pt/SnO ₂ /RuO ₂ , <i>a</i>	91
Ru(bpy) ₃ ²⁺ doped silica coating films, fluorescence, <i>a</i>	143	by [Pt(bpy) ₃](NO ₃) ₃ , poly(2,2'-bipyridine-5,5'-diyl)	113
Fischer-Tropsch Reaction , on Rh and Ru surfaces	9	using H ₂ O-insoluble, polymer-bound Ru(II)	
Fluorescence , in MeOH sensor, <i>a</i>	144	complexes and bis(2,2'-bipyridine)Pt(II), <i>a</i>	91
in Ru(bpy) ₃ ²⁺ doped silica coating films, <i>a</i>	143	sensors, Pd/SiC, Pd/SiO ₂ /SiC Schottky diodes, <i>a</i>	194
in thin film O ₂ sensors, <i>a</i>	92	Hydrogenation , acetylenes, on Pd electrodes, <i>a</i>	43
Fuel , plutonia, for Cassini spacecraft	154	over Pd(OAc) ₂ , <i>a</i>	92
		acrylonitrile-butadiene, by Rh complexes, <i>a</i>	93

	Page		Page
Hydrogenation (contd.)		Membranes , Pd, Pd alloys, for gas permeation	33
alkenes, acetylenes, by $C_{60}[Pd(OAc)_2(PPh_3)]_n$, <i>a</i>	193	Pd, Pd-Ni, on porous substrates, by MOCVD, <i>a</i>	144
alkenes, dienes, alkynes, nitrobenzene, <i>a</i>	92	Pd, thin, gas-tight, by CVD, <i>a</i>	45
alkenes, using $TiO_2/Pt/silicalite-1$ composites, <i>a</i>	92	for PEMFCs	102
benzo[<i>b</i>]thiophene, over $[(sulphos)Rh(cod)]_n$, <i>a</i>	193	$Pt\gamma-Al_2O_3$, hydrogenation of <i>p</i> -chloronitrobenzene, <i>a</i>	145
1,3-butadiene, by Pd_3Cu_{50} , <i>a</i>	145	Metalisation , insulating materials by Pd(acac) ₂	7
over Pt_2Ge , Pt_3Ge , $PtGe$, <i>a</i>	192	Methane , ignition, by catalytic Pt wire, <i>a</i>	144
carboxylic acids, using Ru complex catalysts, <i>a</i>	47	oxidation, by Pd/CuCl ₂ , <i>a</i>	193
characteristics, of $TiFe_{1-x}Pd_x$ alloys, <i>a</i>	190	Methyl Methacrylate , polymerisation, <i>a</i>	146
crude oil, using Pt	32	Michael Reactions , using $RuH_2(PPh_3)_4$, <i>a</i>	47
cyclohexene, by Pt, Pd colloids, <i>a</i>	145	Molecular Wires , $\{[Rh(MeCN)_3](BF_4)_n\}_n$	63
2-cyclohexenone, by fullerene-based Ru catalysts, <i>a</i>	92	Nanomaterials , self-assembly on C surfaces, <i>a</i>	89
dehydroamino acid methyl esters, enantioselective	165	Pd clusters on C, films, superlattices, <i>a</i>	89
hydrocarbons, using Pt complex catalysts, <i>a</i>	46	Pt filled C nanotubes	127
imines, by chiral Ir(I) complexes, <i>a</i>	194	RhCl ₃ filled C nanotubes, <i>a</i>	95
nitrobenzene, <i>p</i> -cresol by Pd, <i>a</i>	45	Nanoparticles , Pt, cuboctahedral, icosahedral, <i>a</i>	41
nitrobenzene, using Pd/Ni colloids	7	monodispersed, polymer protected	80
olefins, using $RuCl_2(PPh_3)_3$, <i>a</i>	146	using liquid-crystalline phase template	170
organic compounds, on Pd/C-fibre electrode, <i>a</i>	191	Pt, Pd, colloids, for cyclohexene hydrogenation, <i>a</i>	145
using B-promoted Ir/C	176	Pt-Pd, polymer protected bimetallic colloids, <i>a</i>	190
<i>p</i> -chloronitrobenzene, $Pt\gamma-Al_2O_3$ membranes, <i>a</i>	145	Nitrate , adsorption, reduction, at Pt, Au electrodes, <i>a</i>	43
reactions, book review	22	Nitrite , in human saliva, detection, <i>a</i>	91
Schiff bases, photocatalytic, by TiO_2 -Pt, CdS/ PtO_2 , <i>a</i>	91	Nitrogen Oxides , NO, in body scavenging, <i>a</i>	95
tetralin, by RuS_2 clusters in Y zeolite, <i>a</i>	93	from nitrate reduction at Pt and Au electrodes, <i>a</i>	43
Hydrogenolysis , benzo[<i>b</i>]thiophene, <i>a</i>	193	reduction, at Pt/YSZ, Pt/CeO ₂ /YSZ electrodes, <i>a</i>	143
<i>p</i> -bromotoluene, by Pd colloids, <i>a</i>	193	by CO over Pt/Al_2O_3 catalyst, <i>a</i>	92
Hydrosilylation , using Pt catalysts	66	over Pt/Al_2O_3 , <i>a</i>	192
Imines , hydrogenation, by chiral Ir(I) complexes, <i>a</i>	194	NOx , reduction, at Fourth Int. Congr. on	
Indeno[1,2-<i>c</i>]isocoumarin , preparation by		Catalysis and Automotive Pollution Control	128
carbonylation, over $Rh_2(CO)_{10}$, <i>a</i>	193	at the SAE conference	76
Indoles , synthesis, using $RuCl_2(PPh_3)_3$, <i>a</i>	146	by Pt/ZSM-5 catalyst	75
Iridium , Ir/Hg electrodes, trace Cr, U, detection, <i>a</i>	192	Nonlinear Optics , σ -acceptor aryl-enynyl Ru, <i>a</i>	89
IrO ₂ , electrode coating	54	Nuclear Wastes , electrochemical treatment, <i>a</i>	144
metallurgy, book review	85	Olefins , hydroformylation, by Rh complex, <i>a</i>	46
microdetector arrays, trace metal detection in water	11	by Rh-PEVV, <i>a</i>	94
Ti/IrO ₂ -Ta ₂ O ₅ anodes, properties, <i>a</i>	43	hydrogenation, using $RuCl_2(PPh_3)_3$, <i>a</i>	146
Iridium Alloys , DOP-26 Ir, encapsulating plutonia	154	polymerisation, by $RuCl_2(arene)(PR_3)$ precursors, <i>a</i>	194
Ir ₂ Co _{1-x} Sb _x , preparation, properties, <i>a</i>	41	Optical Switching , in Pd	33
Iridium Complexes , $HIr(CO)(PPh_3)_3$,		Osmium , Os-Zr, thermodynamic properties, <i>a</i>	41
$HIr(COD)(PPh_3)_3$, reactions with fullerenes, <i>a</i>	42	Osmium Complexes , $[Os(bpy)_2(PVP)_mCl]Cl$,	
$I + IrCl_2^+$, reaction kinetics, <i>a</i>	89	for detection of lactate, <i>a</i>	192
$IrCl_2^+$, in MeOH matrices, photoproperties, <i>a</i>	191	$[Os(bpy)_2]^+$, photoproperties, <i>a</i>	191
$[Ir(CO)_2]^+$, $[Ir(CO)_2Cl]^+$, spectroscopic properties, <i>a</i>	42	$[Os(CO)_2Cl(OH)]_2$, $[Os(CO)_2(OH)_2]_2$, <i>a</i>	42
<i>trans</i> - $Ir(CO)_2L_2X$, H ₂ activation, <i>a</i>	190	Os(II) diimine, in crystals, photoproperties, <i>a</i>	192
Isomerisation , allyl ethers, allyl acetals, <i>a</i>	47	<i>trans</i> - $[OsO_2(CN)_2(dpphen)]$, alkane oxidation, <i>a</i>	192
heptane, over PtPd/H-Beta, PtPd/USY zeolites, <i>a</i>	145	$(tp)Ru(tpy-ph-bco-ph-tpy)Os(tp)^+$,	
hexene, by dihydridorhodium complex, <i>a</i>	93	Ru→Os energy transfer, <i>a</i>	90
Johnson Matthey , catalysts, for heat/power unit	64	Oxidation , alkanes, by <i>trans</i> - $[OsO_2(CN)_2(dpphen)]$, <i>a</i>	192
JM1226, JM6245, NO scavengers, <i>a</i>	95	alkenes, by $RuL(CO)(EtOH)$ in MCM-41, <i>a</i>	93
new autocatalyst manufacturing plant in Malaysia	114	CO, hydrocarbons, over Pd/zeolite, <i>a</i>	193
"Platinum 1997",	131	electro, CO and CO/H ₂ , by Pt-Sn(IMP), <i>a</i>	94
Lactate , detection, using $[Os(bpy)_2(PVP)_mCl]Cl$, <i>a</i>	192	CO, CO/H ₂ , by PtRu alloy colloids, <i>a</i>	146
Langmuir-Blodgett Films , platinised, H ₂ evolution, <i>a</i>	43	H ₂ /CO, at Pt ₇₅ Mo ₂₅ alloy surface, <i>a</i>	143
Pt colloid particles, on electrodes, PEC solar cells, <i>a</i>	44	guanine, in DNA, by $Ru(phen)_2(dppz)^+$, <i>a</i>	144
Pt-loaded, for H ₂ evolution, <i>a</i>	191	H ₂ , at Pt, Pt/polymer, electrodes, <i>a</i>	90
Lead , traces in water, detection	11	MeOH, at Ru-Pt electrodes, in DMFCs, <i>a</i>	47
Ludwig Mond Lectureship	8	on Pt fuel cell electrodes, <i>a</i>	194
Luminescence , of pgm complexes, optical O ₂ sensors	115	methane, alkanes, by Pd/CuCl ₂ , <i>a</i>	193
of porous anodised Pt/Si contacts, <i>a</i>	43	steroids, by Ru complex catalysts, <i>a</i>	47
in Pt(dpp)X ₂ , <i>a</i>	42	by Ru porphyrins, <i>a</i>	146
Macrocycles , self-assembly from (en)Pd(NO ₃) ₂ , <i>a</i>	42	using Bi ₂ Ru ₂ O ₁₁ electrodes, <i>a</i>	143
Magnetism , in (Co _x Ni _{1-x})Pd multilayers, <i>a</i>	147	Oxygen , electroreduction, at thin Pt films, <i>a</i>	191
in CuRh ₂ (S _{1-x} Te _x) ₂ , superconductivity, <i>a</i>	41	reduction, at RuO ₂ -coated Ti electrodes, <i>a</i>	143
interlayer coupling in Co/Rh/Co sandwiches, <i>a</i>	190	sensors	92, 115
properties of Fe-Pt permanent magnets, <i>a</i>	190	Palladium , addition to dental amalgam, <i>a</i>	147
Medical , HIV protease inhibitor, Rh catalyst for	165	in Au/Ge/Pd/GaAs, Au/Ti/Ge/Pd/GaAs,	
$K[Ru(Hedta)Cl]$, JM1226, Ru(Hedta)(H ₂ O),		Au/Mo/Ti/Ge/Pd/GaAs, ohmic contacts, <i>a</i>	95
JM6245, as NO scavengers, <i>a</i>	95	clusters, self-assembly on C surfaces, <i>a</i>	89
Pd-TMPyP, for DNA determination, <i>a</i>	194	electroless deposition	7
Pt(II), Pt(IV) cisplatin analogues, antitumour, <i>a</i>	147	membranes, fabrication by CVD, <i>a</i>	45
Medical Uses , <i>a</i>	47, 95, 147, 194	hydrogen permeation	33
		microparticles, in film-coated C-fibre electrode, <i>a</i>	191

	Page		Page
Palladium (contd.)		Platinum (contd.)	
Nd-Pd-Ru, ternary phase diagram, <i>a</i>	142	Pt-Pd polymer protected bimetallic colloids, <i>a</i>	190
Pd, Pd-Cu, particles, on MgO microcubes, <i>a</i>	142	Pt/MnO ₂ /M, (M = Cu, Al), humidity sensor, <i>a</i>	92
Pd, Pd-Ni, membranes, on porous substrates, <i>a</i>	144	Pt/Ti bottom electrodes, for PZT capacitors, <i>a</i>	147
Pd-Ge based ohmic contacts, <i>a</i>	147	Pt/Ti/Au, ohmic contacts, low contact resistance, <i>a</i>	147
Pd-Pt polymer protected bimetallic colloids, <i>a</i>	190	Pt/Ti/Pt/Au Schottky contacts, <i>a</i>	147
Pd-TMPyP, for DNA determination, <i>a</i>	194	Pt/Si/Si ₃ N ₄ /Ge, Schottky barrier junctions, <i>a</i>	147
Pd/(Co _{1-x} Ni _x) multilayers, magnetic properties, <i>a</i>	147	thin films, for O ₂ electroreduction, <i>a</i>	191
Pd/Zn/Pd, ohmic contacts, to <i>p</i> -type GaP, <i>a</i>	194	Ti/Pt/Au Schottky contacts on InGaP, <i>a</i>	95
thin film photocathode, for vacuum gauge, <i>a</i>	45	wires, connections by electrocrystallisation, <i>a</i>	44
thin films, fabrication by CVD, <i>a</i>	44	Platinum Alloys , Cu ₃ Pt(111), CO chemisorption, <i>a</i>	41
TiNiPd, shape memory thin film, <i>a</i>	142	as electrodes in H ₂ PO ₄ , properties, <i>a</i>	43
Palladium Alloys , membranes, H ₂ permeation	33	Pt ₃ Mo ₂ , for oxidation of H ₂ /CO, <i>a</i>	143
Pd ₈₀ Ni ₂₀ P ₂₀ , nanocrystalline structure, <i>a</i>	142	Pt-30%Rh, encapsulating plutonia fuel pellets	154
Pd-Ni, membranes, on porous substrates, <i>a</i>	144	Pt-Al coatings, corrosion behaviour, <i>a</i>	95
Pd-Pt/C electrode, for aldehyde detection, <i>a</i>	44	Pt-Fe permanent magnets, properties, <i>a</i>	190
Pd-Y nanoalloys, thermal stability, H ₂ absorption, <i>a</i>	41	Pt-Pd electrode, aldehyde detection, <i>a</i>	44
PdCu(110) single crystal surfaces, properties, <i>a</i>	89	Pt-Ru electrodes, MeOH oxidation, DMFCs, <i>a</i>	47
Pd,TiFe _{1-x} , hydrogenation characteristics, <i>a</i>	190	Pt-Ti, corrosion behaviour, <i>a</i>	95
Palladium Complexes , (en)Pd(NO ₃) ₂ , giving		Pt-W-Re-Ni-Cr-Y, Pt-Ir-Ni-Cr-Y for strain gauges	24
macrocycles, hollow cages, catenanes, <i>a</i>	42	Pt/Si contacts, composition, photoluminescence, <i>a</i>	43
H ₂ PdCl ₄ , adsorption, onto C, interaction, <i>a</i>	90	PtRu colloids, for CO, CO/H ₂ electrooxidation, <i>a</i>	146
Pd(0), stable, from Pd(PPh ₃) ₂ (BF ₄) ₂ , <i>a</i>	89	Platinum Complexes , bis(2,2'-bipyridine)Pt(II),	
[Pd ₂ (μ-X) ₂ (PBu ^t) ₂], acetylene polymerisation, <i>a</i>	89	for H ₂ generation, <i>a</i>	91
Pd(acac) ₂ , PdCl ₂ (PhCN) ₂ , organo Hg, Se detection, <i>a</i>	45	carboplatin, detection, in vivo, <i>a</i>	47
Pd(η ¹ -C ₆ H ₅)(Cp), Pd(η ¹ -C ₆ H ₅)(hfa),		for hydrodesulfurisation of crude oil	8
precursors for Pd film deposition, <i>a</i>	44	porphyrins, in optical O ₂ sensors	115
Pd(II) neutral 5,5'-bis-amide substituted 2,2'-		[Pt(bpy) ₂] ²⁺ , photoproperties, <i>a</i>	191
bipyridyl receptors, NMR binding studies, <i>a</i>	89	[Pt(bpy) ₂](NO ₃) ₂ , for H ₂ photoproduction	113
porphyrins, in optical O ₂ sensors	115	Pt(dpp)X ₂ , structures, photoproperties, <i>a</i>	42
Phenylacetylene , hydrogenation,		[Pt(en) ₂][PtCl ₂ (en) ₂](ClO ₄) ₂ , electrocrystallisation, <i>a</i>	90
using C ₆₀ [Pd(OAc) ₂ (PPh ₃) ₂], <i>a</i>	193	[Pt(η ¹ -C ₆₀)(L-L)], (L-L)=Ph ₂ P(CH ₂) ₂ PPh ₂ , <i>a</i>	142
Phenylethane , synthesis, using C ₆₀ [Pd(OAc) ₂ (PPh ₃) ₂], <i>a</i>	193	Pt(II) neutral 5,5'-bis-amide substituted 2,2'-	
Phosphorescence , Pd-TMPyP, DNA determination, <i>a</i>	194	bipyridyl receptors, NMR binding studies, <i>a</i>	89
Photocatalysis , H ₂ O decomposition, over Pt-TiO ₂ , <i>a</i>	145	Pt(II), Pt(IV) cisplatin analogues, <i>a</i>	147
H ₂ production, by Pt/SnO ₂ , Pt/SnO ₂ /RuO ₂ , <i>a</i>	91	Poisoning , S, of autocatalysts	76
by [Pt(bpy) ₂](NO ₃) ₂ , poly(2,2'-bipyridine-5,5'-diyl)	113	Pollution Control , at Fourth International Congress	
hydrogenation, Schiff bases, by TiO ₂ -Pt, CdS/PtO ₂ , <i>a</i>	91	on Catalysis and Automotive Pollution Control	128
oxidation, alkanes, by <i>trans</i> -[OsO ₂ (CN) ₂ (dpphen)], <i>a</i>	192	by fuel cells, 5th Grove Fuel Cell Symposium	171
using Pt doped TiO ₂ films, <i>a</i>	143	by Pt catalysts, for removal of NOx	75
Photoconversion , <i>a</i>	43-44, 91, 143-144, 191	Cd, Pb trace metals detection, in H ₂ O	11
Photoluminescence , anodised alloyed Pt/Si contacts, <i>a</i>	43	contaminated water with Pd/Fe	2
Photolysis , of [Cp [*] Ru(benzene)]PF ₆ , <i>a</i>	42	Cr and U traces in environmental samples, <i>a</i>	192
Tp [*] Rh(CO) ₂ , to chiral alkyl-hydride complexes, <i>a</i>	44	Polyketones , Pd catalysed synthesis	10
Photoproperties , IrCl ₆ ³⁻ , in MeOH matrices, <i>a</i>	191	Polymerisation , acetylenes, using [Pd ₂ (μ-X) ₂ (PBu ^t) ₂], <i>a</i>	89
[Pt(bpy) ₂] ²⁺ , [Rh(bpy) ₂] ³⁺ , [Ru(bpy) ₂] ²⁺ , [Os(bpy) ₂] ²⁺ , <i>a</i>	191	electro, giving poly(calixarene-[Ru(bpy) ₂] ²⁺)	
[Ru(bpy) ₂] ²⁺ , <i>a</i>	91	modified electrodes, <i>a</i>	90
Ru(II), Os(II), diimine complexes, in crystals, <i>a</i>	192	ethylene, by Pt and Rh complex catalysts, <i>a</i>	46
Ru(tap) ₂ (ppFc) ⁺ , Ru(bpy) ₂ (ppFc) ⁺ , <i>a</i>	91	methyl methacrylate, Ru catalysed, <i>a</i>	146
spectroscopy, Pt(dpp)X ₂ , <i>a</i>	42	phenylacetylene by Rh and Ir complex catalysts, <i>a</i>	47
"Platinum 1997"	131	ROMP, olefins, using RuCl ₂ (arene)(PR ₃), <i>a</i>	194
Platinum , coatings, electrodeposited, on Ebonex, <i>a</i>	144	Polymers , {[Rh(MeCN) ₄](BF ₄) ₂] _n }, 1-D array	63
from electrodeposition	21	conductive, from Ru ₂ (O ₂ C(CH ₂) ₆ CH ₃) _n , <i>a</i>	191
colloid particle electrodes, for PEC solar cells, <i>a</i>	44	encapsulating media in optical O ₂ sensors	115
colloids, formed after Pt catalysed hydrosilylation	66	[Os(bpy) ₂](PVP) _n Cl]Cl, for lactate detection, <i>a</i>	192
crystallographic properties, thermal expansion	12	poly(1-vinylimidazole)-bound Ru(II), <i>a</i>	91
deposited in C nanotubes	127	poly(2,2'-bipyridine-5,5'-diyl), H ₂ photoproduction	113
doped TiO ₂ films, photocatalytic activity, <i>a</i>	143	silicones, by hydrosilylation, using Pt catalysts	66
dual-disk microelectrode, properties, <i>a</i>	44	Power Sources , radioisotopic, for Cassini spacecraft	154
electrodes, for glucose detection, <i>a</i>	91	Promoters , in autocatalysts	76
in LB and cast films of porphyrin, H ₂ evolution, <i>a</i>	191	Purification , contaminated water using Pd/Fe	2
loadings, on PEMFC electrodes	102		
ultra low, on PEMFC electrodes, <i>a</i>	146	Radioisotopes , plutonia, clad in pgm alloys	154
malleable, history, of Bertrand Pelletier	86	Reduction , CO ₂ , at (modified) RuOx electrodes, <i>a</i>	143
monodispersed, nanostructured, ultrafine	80	electro, of O ₂ , at thin Pt films, <i>a</i>	191
nanoparticles, colloids, <i>a</i>	41	propargyl acetates by PdCl ₂ (PPh ₃) ₂ /PPh ₃ , <i>a</i>	43
deposited on MeOH FC electrodes, <i>a</i>	194	NO, at Pt, Pt/CeO ₂ , electrodes, <i>a</i>	143
from liquid-crystalline phase template	170	by C ₃ H ₈ , over Pt/Al ₂ O ₃ , lean-burn conditions, <i>a</i>	192
overlayers, for growth of Si oxide layers, <i>a</i>	144	O ₂ , at RuO ₂ -coated Ti electrodes, <i>a</i>	143
Pt-Pt-10Rh, thermocouple wires	81	tetrahydropyrazine, enantioselective	165
Pt, platinised Ti, electrode coatings	54	Reformate , fuel for PEMFCs	102
Pt, Pt/CeO ₂ , electrodes, for NO reduction, <i>a</i>	143	Reforming , <i>n</i> -hexane, over Pt/zeolite catalysts, <i>a</i>	192
Pt, Pt/polymer, electrodes, H ₂ oxidation, <i>a</i>	90	using Pt-Ce/KL or Pt/CeKL zeolite catalysts, <i>a</i>	45
Pt-carbonyl colloids, <i>a</i>	190	Resistors , RuO ₂ , thick film, properties, <i>a</i>	194
Pt-coated <i>p</i> -Si photocathodes, H ₂ evolution, <i>a</i>	44	thick film, ruthenate-based, <i>a</i>	95

	Page		Page
Rhodium , crystallography, thermal expansion	184	Schottky Barrier Junctions , PtSi/Si _{1-x} Ge _x , <i>a</i>	147
ErRh ₂ B ₂ , single crystals, characterisation, <i>a</i>	142	Schottky Contacts , Pt/Ti/Pt/Au, HEMTs, <i>a</i>	147
interlayer coupling in Co/Rh/Co sandwiches, <i>a</i>	190	Ti/Pt/Au, on InGaP, <i>a</i>	95
microdeposits, on C, electrocatalysis for H ₂ , <i>a</i>	90	Schottky Diodes , Pd/SiC, Pd/SiO ₂ /SiC, sensors, <i>a</i>	194
Pt:Pt-10Rh, thermocouple wires	81	Semiconductors , Ir, Co _{1-x} Sb _x , thermoelectrics, <i>a</i>	41
Rhodium Alloys , Pt-30%Rh, encapsulating plutonia	154	Pt/SnO ₂ , Pt/SnO ₂ /RuO ₂ , CdS, H ₂ photoproduction, <i>a</i>	91
Rhodium Complexes , {[Rh(MeCN) ₄](BF ₄) _{1.5}] _n }		[Ru-(binap-2)](PF ₆), <i>a</i>	42
1-D polymer array, as molecular wire	63	TiO ₂ -Pt, CdS/PtO ₂ , hydrogenation of Schiff bases, <i>a</i>	91
HRh(CO)(PPh ₃) ₃ , reactions with fullerenes, <i>a</i>	42	Sensors , aliphatic aldehydes, <i>a</i>	44
[LRh(H) ₂ (μ-Si(CH ₂ CH ₂ Ph) ₂) ₂ Rh(H) ₂ L], <i>a</i>	142	cadmium, in water	11
[Rh ₂ Cp ₂ (μ-CH ₂)(μ-η ¹ :η ¹ -NHC(=O)Me)](PF ₆), <i>a</i>	190	carboplatin, at low concentrations in vivo, <i>a</i>	47
[Rh(bpy) ₃] ³⁺ , photoproperties, <i>a</i>	191	chromium, <i>a</i>	192
RhCl ₃ filled C nanotubes, <i>a</i>	95	glucose, using Pt electrodes, <i>a</i>	91
Rh(PPh ₃) ₂ (CO)Cl, by carbonylation of Rh(PPh ₃) ₃ Cl, <i>a</i>	45	H ₂ , hydrocarbons, using Schottky diodes, <i>a</i>	194
Tp Rh(CO) ₂ , photolysis, <i>a</i>	44	humidity, <i>a</i>	92
Rhodium Compounds , CuRh ₂ (S _{1-x} Te _x) ₄ , superconductivity, magnetism, <i>a</i>	41	lactate, using [Os(bpy) ₂ (PVP) ₁₀ Cl]Cl, <i>a</i>	192
Ruthenium Alloys , laser surface alloying of Fe-40Cr, <i>a</i>	142	lead, in water	11
Ru-Ni-Al ternary system, characteristics, <i>a</i>	190	MeOH, fluorescence lifetime-based, <i>a</i>	144
Nd-Pd-Ru, ternary phase diagram, <i>a</i>	142	mercury, organic compounds, <i>a</i>	45
Ru-Pt electrodes, oxidation of MeOH, in DMFCs, <i>a</i>	47	nitrite, using Pt microelectrodes, <i>a</i>	91
RuPt colloids, for CO, CO/H ₂ electrooxidation, <i>a</i>	146	O ₂ , optical, using pgm complexes using Ru(II) complex, <i>a</i>	115 92
Ruthenium Complexes , [(C ₆ H ₅) ₃ Fe ^{II} (C ₆ H ₅)C≡CRu ^{II} - (dppm) ₂ (C≡CR)], electrochemistry, <i>a</i>	90	selenium, organic compounds, <i>a</i>	45
[Cp [*] Ru(μ-SR) ₂ (η ¹ -C ₂ H ₄ R) ₂ RuCp [*]], synthesis, <i>a</i>	43	uranium, trace detection in environment, <i>a</i>	192
[Cp [*] Ru(benzene)]PF ₆ , [Cp [*] Ru(CH ₃ CN) ₃]PF ₆ , [Cp [*] Ru(arene)]PF ₆ , <i>a</i>	42	Silicones , from hydrosilylation, using Pt catalysts	66
[(edtaH)Ru ^{III} NCRu ^{II} (CN) ₅] ⁻ , properties, <i>a</i>	191	Solar Cells , photoelectrochemical, H ₂ production, <i>a</i>	143
[HRu ₂ (CO) ₁₂ (PPhPh ₂) ₂ BH ₂], characterisation, <i>a</i>	191	Pt/Si electrodes, <i>a</i>	44
K[Ru(Hedta)Cl], Ru(Hedta)(H ₂ O), NO scavengers, <i>a</i>	95	with Ru(II) sensitisers	183
K[Ru(II)-(bmipy)(4,4'-dcbpy)(NCS)], sensitisers for solar cells	183	Spacecraft , Cassini, with plutonia power sources	154
poly(calixarene-[Ru(bpy) ₃] ²⁺) modified electrodes, <i>a</i>	90	Spectroscopy , [Ir(CO) ₂] ⁺ , [Ir(CO) ₂ Cl] ⁺ , <i>a</i>	42
polymer-bound Ru(II), H ₂ generation, <i>a</i>	91	Pt(dpp) ₂ X ₂ , structures, properties, <i>a</i>	42
Ru ₂ (O ₂ C(CH ₂) ₆ CH ₃) ₄ , conductive polymers, <i>a</i>	191	Sputtering , ion beam, Pd thin film photocathode, <i>a</i>	45
[Ru ₂ (μ ₃ -CCCCCH(SiMe ₃)) ₂ (μ-PPh ₂)(μ-SMe)- (μ ₃ -SMe)(CO) ₁₀], [Ru ₂ (μ ₃ -CCCCCH ₂ (μ-PPh ₂)- (μ-SMe)(μ ₃ -SMe)(CO) ₁₀], [Ru ₂ (μ ₃ -CCCCCH ₂ - (μ-PPh ₂)(μ-SMe) ₂ (CO) ₁₁], <i>a</i>	89	Steroids , 3β-hydroxy, oxidation, <i>a</i>	47
[Ru-(binap-2)] ₂ (PF ₆) ₂ , [Ru-(binap-2)](PF ₆), structure, conductivity, <i>a</i>	42	oxidation, using Ru porphyrins, <i>a</i>	146
[Ru(bpy) ₃] ²⁺ , doped silica coating films, fluorescence properties, <i>a</i>	143	Strain Gauges , from Pt alloys	24
photoproperties, <i>a</i>	91, 191	Styrene , hydroformylation, by Rh-zeolite	132
RuCl(NO)(PPh ₃) ₂ , <i>trans</i> -[RuCl(NO)(PR ₃) ₂], <i>a</i>	42	Sulfur , autocatalyst poisoning removal by Pt complex	76 32
[Ru(CO) ₂ Cl(OH)] _n , [Ru(CO) ₂ (OH) ₂] _n , <i>a</i>	42	S-resistant Pt hydrogenation catalysts	32
Ru(dcbpy) ₂ (PF ₆) ₂ , in MeOH sensor, <i>a</i>	144	Superalloys , Pt-Al coatings, corrosion resistance, <i>a</i>	95
[Ru(dpp)] ²⁺ , [Ru(phen)] ²⁺ , [Ru(bpy)] ²⁺ , O ₂ sensors	115	Superconductivity , CuRh ₂ (S _{1-x} Te _x) ₄ solid solution, <i>a</i>	41
RuH ₂ (H ₂) ₂ (PCy ₃) ₂ , decomposition, properties, <i>a</i>	90	Superconductors , SrRuO ₄ , Hall effect, <i>a</i>	41
Ru(II) diimine, in crystals, photoproperties, <i>a</i>	192	Tetralin , hydrogenation, by RuS ₂ /KY zeolite, <i>a</i>	93
Ru(II) polypyridyl sensitisers, on TiO ₂ , <i>a</i>	144	Thermal Expansion , of Pt	12
[RuNO(NO ₂)OH] ⁺ , nuclear waste treatment, <i>a</i>	144	of Rh	184
Ru(phen)(dppz) ²⁺ , guanine oxidation, in DNA, <i>a</i>	144	Thermal Stability , Pd-Y nanoalloys, H ₂ adsorption, <i>a</i>	81
Ru(PPh ₃) ₂ (CO) ₂ Cl ₂ , by Ru(PPh ₃) ₃ Cl ₂ carbonylation, <i>a</i>	45	Thermocouples , wires, Pt:Pt-10Rh, properties	41
Ru(tap) ₂ (ppFc) ²⁺ , Ru(bpy) ₂ (ppFc) ²⁺ , photoproperties, <i>a</i>	91	Thermodynamics , binary Os-Zr system, <i>a</i>	41
σ-acceptor aryl-enynyl, nonlinear optical properties, <i>a</i>	89	Thermoelectric Properties , Ir, Co _{1-x} Sb _x , <i>a</i>	41
tris(4,7-diphenyl-1,10-phenanthroline)Ru(II) ditetraphenylborate, thin films, O ₂ sensor, <i>a</i>	92	Thick Films , resistors, RuO ₂ , properties, <i>a</i>	194
(ttp)Ru(tpy-ph-bco-ph-tpy)Os(tpp) ⁴⁺ , Ru→Os energy transfer, <i>a</i>	90	ruthenate-based, <i>a</i>	95
Ruthenium Compounds , B ₁₃ Ru ₃ O ₁₁ , electrodes for oxidations, <i>a</i>	143	Thin Films , see also Films	
RuO ₂ , RuO ₂ /TiO ₂ , TiO ₂ /RuO ₂ /AlSbO ₄ , electrode coatings	54	capacitors, SrRuO ₃ /Pb(Zr, Ti)O ₃ /SrRuO ₃ , <i>a</i>	194
RuO ₂ -coated Ti electrodes, O ₂ reduction, <i>a</i>	143	CaRuO ₃ , SrRuO ₃ , Hall effect, <i>a</i>	41
RuO ₂ , thick film resistors, properties, <i>a</i>	194	cast, Langmuir-Blodgett, Pt-loaded, H ₂ evolution, <i>a</i>	191
(modified) RuOx, electrodes, reduction of CO ₂ , <i>a</i>	143	Pd, OMCVD, <i>a</i>	44
ruthenate-based thick film resistors, <i>a</i>	95	photocathodes, ion-beam sputtered, <i>a</i>	45
Sr ₂ RuO ₄ , superconductor, Hall effect, <i>a</i>	41	Pt, for electroreduction of O ₂ , <i>a</i>	191
SrRuO ₃ , CaRuO ₃ , thin films, Hall effect, <i>a</i>	41	SrRuO ₃ , conductive, pulsed laser deposition, <i>a</i>	44
SrRuO ₃ , thin films, conductive, <i>a</i>	44	SrTi _{1-x} Ru _x O _{3-δ} , on SrTiO ₃ , pulsed laser deposition, <i>a</i>	91
SrRuO ₃ /Pb(Zr, Ti)O ₃ /SrRuO ₃ capacitors, <i>a</i>	194	TiNiPd, shape memory behaviour, <i>a</i>	142
SrTi _{1-x} Ru _x O _{3-δ} thin films on SrTiO ₃ , <i>a</i>	91	Ru(II) O ₂ sensors, <i>a</i>	92
		Trichloroethylenes , dechlorination with Pd/Fe	3
		Uranium , detection, in environmental samples, <i>a</i>	192
		Vacuum Gauge , with Pd thin film photocathode, <i>a</i>	45
		Water , ground, purification	2
		trace Cd, Pb detection by Ir microelectrode	11
		Wires , Pt, as catalytic igniter for CH ₄ flames, <i>a</i>	144
		Zeolites , Rh/zeolite catalysts, for hydroformylation	132