	3.1.4.	The Gold Fields Group	67
	3.1.5.	The Gold Fields Group	68
	3.1.6.	Other Producers or Potential Producers	69
3.2.	Russia	South African Production	69
3.3.			73
3.3.	3.3.1.	Major Producers	73
	3.3.2.	Major Producers	74
2.4		Canadian Production	76
3.4.	The US	Minor and Property	76
	3.4.1.	Mines and Prospects	76
2.5	3.4.2.	USA Production	17
3.5.	Other I	Producers	17
	3.5.1.	Australia	78
	3.5.2.	Colombia	78
	3.5.3.	Ethiopia	78
	3.5.4.	Finland	
	3.5.5.	Japan	78
	3.5.6.	Yugoslavia	78
	3.5.7.	Zimbabwe	78
	3.5.8.	Other Producers	79
3.6.	World	PGM Production	79
		. MINING, BENEFICIATION, AND REFINING	0=
4.1.	Mining	······································	85
4.2.	Benefic	ciation Processes	86
	4.2.1.	Comminution and Gravity Concentration	86
	4.2.2.	Flotation	86
	4.2.3.	Smelting	87
	4.2.4.	Leaching and Chemical Separation	87
	4.2.5.	Primary Refining Methods	88
	4.2.6.	Secondary Refining Methods	90
CHA	APTER 5	S. MARKETING, TRADING, PRICING, AND HISTORICAL DEMAND	
5.1.	Histori	ical Aspects of Supply and Demand	93
5.2.	Sales o	f Primary PGM Production	95
	5.2.1.	Agents for Contractual Sales of Primary Production	95
	5.2.2.	Markets and Exchanges for Spot and Futures Contact Sales	95
5.3.	Interna	itional Metals Trade	97
	5.3.1.	Metals Trade	97
	5.3.2.	Trade in Waste, Scrap, Raw Ores, or Concentrates	97
	5.3.3.	Refining of Secondary PGM	103
5.4.	Strateg	cic Inventories	103
5.5.	Pricing	5	104
	5.5.1.	Factors Influencing Prices	104
	5.5.2.	Trading Prices	108
	5.5.3.	Time-price Relationships	109
5.6.		ical Commercial Demand for the PGM	118
5.0.	5.6.1.	Ragional Consumption in the Western World	118
	5.6.2.	Regional Consumption in the Western World	120
5 7		Demand by Industries in Various Western Countries	126
5.7.	some r	Notes on the General Uses of the Platinum-group Metals	120
СН	APTER 6	5. PGM CATALYSIS	
6.1.			133
		mentals	133
6.2.	Communi	mentals	133
0.3.	Genera	al Catalytic Applications GM in Autocatalysts, Catalysts for Stationary Engines, and Industrial Catalysts	
0.4.	The P	IVI IN AUTOCATALYSIS, CATALYSIS FOR STATIONARY Engines, and Industrial Catalysis	134
	(11	Enhant Enjages	72
	6.4.1.	Exhaust Emissions	
	6.4.1. 6.4.2.	Exhaust Emissions	135
	6.4.1. 6.4.2. 6.4.3.	Exhaust Emissions	134 135 135 136

Diesel-fuelled Vehicles Pollution from Stationary Sources Emission-control Legislation Background North America Japan Western Europe The Rest of the World Vehicle Populations and Technological Advances in Emission Controls in a World Context Ing of PGM in Autocatalysts THE PGM IN JEWELLERY, COINAGE, AND INVESTMENT Cal Ind Alloys for Jewellery and Coins Ewellery in a World Context Japan Western Europe South-east Asia North America South Africa M as an Investment Medium Platinum Coins, Medallions, and Small Bars Grade in Large Platinum Bars Sions THE LESSER USES OF THE INDIVIDUAL PGM
Pollution from Stationary Sources Emission-control Legislation Background North America Japan Western Europe The Rest of the World Vehicle Populations and Technological Advances in Emission Controls in a World Context ng of PGM in Autocatalysts THE PGM IN JEWELLERY, COINAGE, AND INVESTMENT cal nd Alloys for Jewellery and Coins ewellery in a World Context apan Western Europe South-east Asia North America South Africa M as an Investment Medium Platinum Coins, Medallions, and Small Bars Grade in Large Platinum Bars Sions
Emission-control Legislation Background North America Japan Western Europe The Rest of the World Wehicle Populations and Technological Advances in Emission Controls in a World Context Ing of PGM in Autocatalysts THE PGM IN JEWELLERY, COINAGE, AND INVESTMENT Cal Ind Alloys for Jewellery and Coins Ewellery in a World Context Is apan Western Europe South-east Asia North America South Africa M as an Investment Medium Platinum Coins, Medallions, and Small Bars Trade in Large Platinum Bars Sions
Background
North America Japan Western Europe The Rest of the World Wehicle Populations and Technological Advances in Emission Controls in a World Context Ing of PGM in Autocatalysts THE PGM IN JEWELLERY, COINAGE, AND INVESTMENT Cal Ind Alloys for Jewellery and Coins Ewellery in a World Context Imparation of Alloys for Jewellery and Coins Ewellery in a World Context Imparation of Alloys for Jewellery and Coins Ewellery in a World Context Imparation of Alloys for Jewellery and Coins Ewellery in a World Context Imparation of Alloys for Jewellery and Coins Imparation o
Japan Western Europe The Rest of the World Wehicle Populations and Technological Advances in Emission Controls in a World Context Ing of PGM in Autocatalysts THE PGM IN JEWELLERY, COINAGE, AND INVESTMENT Cal Ind Alloys for Jewellery and Coins Ewellery in a World Context Japan Western Europe Jouth-east Asia North America South Africa M as an Investment Medium Platinum Coins, Medallions, and Small Bars Trade in Large Platinum Bars Journ Advances in Emission Controls in a World Context The PGM IN JEWELLERY, COINAGE, AND INVESTMENT Color of PGM IN JEWELLERY, COINAGE, AND INVESTMEN
Western Europe
The Rest of the World Vehicle Populations and Technological Advances in Emission Controls in a World Context Ing of PGM in Autocatalysts THE PGM IN JEWELLERY, COINAGE, AND INVESTMENT Cal Ind Alloys for Jewellery and Coins Ewellery in a World Context Iapan Western Europe South-east Asia North America South Africa M as an Investment Medium Platinum Coins, Medallions, and Small Bars Trade in Large Platinum Bars Sions
Vehicle Populations and Technological Advances in Emission Controls in a World Context
ng of PGM in Autocatalysts THE PGM IN JEWELLERY, COINAGE, AND INVESTMENT cal
THE PGM IN JEWELLERY, COINAGE, AND INVESTMENT cal
cal
cal
Mestern Europe South-east Asia North America Mas an Investment Medium Platinum Coins, Medallions, and Small Bars Grade in Large Platinum Bars Sions
wellery in a World Context apan Western Europe South-east Asia North America South Africa M as an Investment Medium Platinum Coins, Medallions, and Small Bars Grade in Large Platinum Bars Sions
Western Europe
Western Europe South-east Asia North America South Africa M as an Investment Medium Platinum Coins, Medallions, and Small Bars Grade in Large Platinum Bars
South-east Asia North America South Africa M as an Investment Medium Platinum Coins, Medallions, and Small Bars Grade in Large Platinum Bars
North America South Africa M as an Investment Medium Platinum Coins, Medallions, and Small Bars Frade in Large Platinum Bars
South Africa M as an Investment Medium Platinum Coins, Medallions, and Small Bars Trade in Large Platinum Bars Sions
South Africa M as an Investment Medium Platinum Coins, Medallions, and Small Bars Trade in Large Platinum Bars Sions
M as an Investment Medium
Platinum Coins, Medallions, and Small Bars
Frade in Large Platinum Barssions
sions
THE LESSER USES OF THE INDIVIDUAL PCM
n
Chemical Uses
lectrical Uses
class and Fibre Manufacture
Aiscellaneous Uses
m
lectrical Uses
Pental and Medical Uses
liscellaneous Uses
n
hemical Useslectrical Uses
lassmaking
liscellaneous Uses
ım
ectrical and Electronic Uses
ectrochemical and Chemical Uses
iscellaneous Uses