



Profile

Platinum Group Metals –
the Power to *Improve Lives*

Os · Ru · Rh · Pd · Pt

IPA

The background features several large, thin, grey abstract lines that sweep across the page from the left side, creating a sense of movement and depth. These lines vary in length and curvature, some extending towards the top right and others towards the bottom right.

IPA

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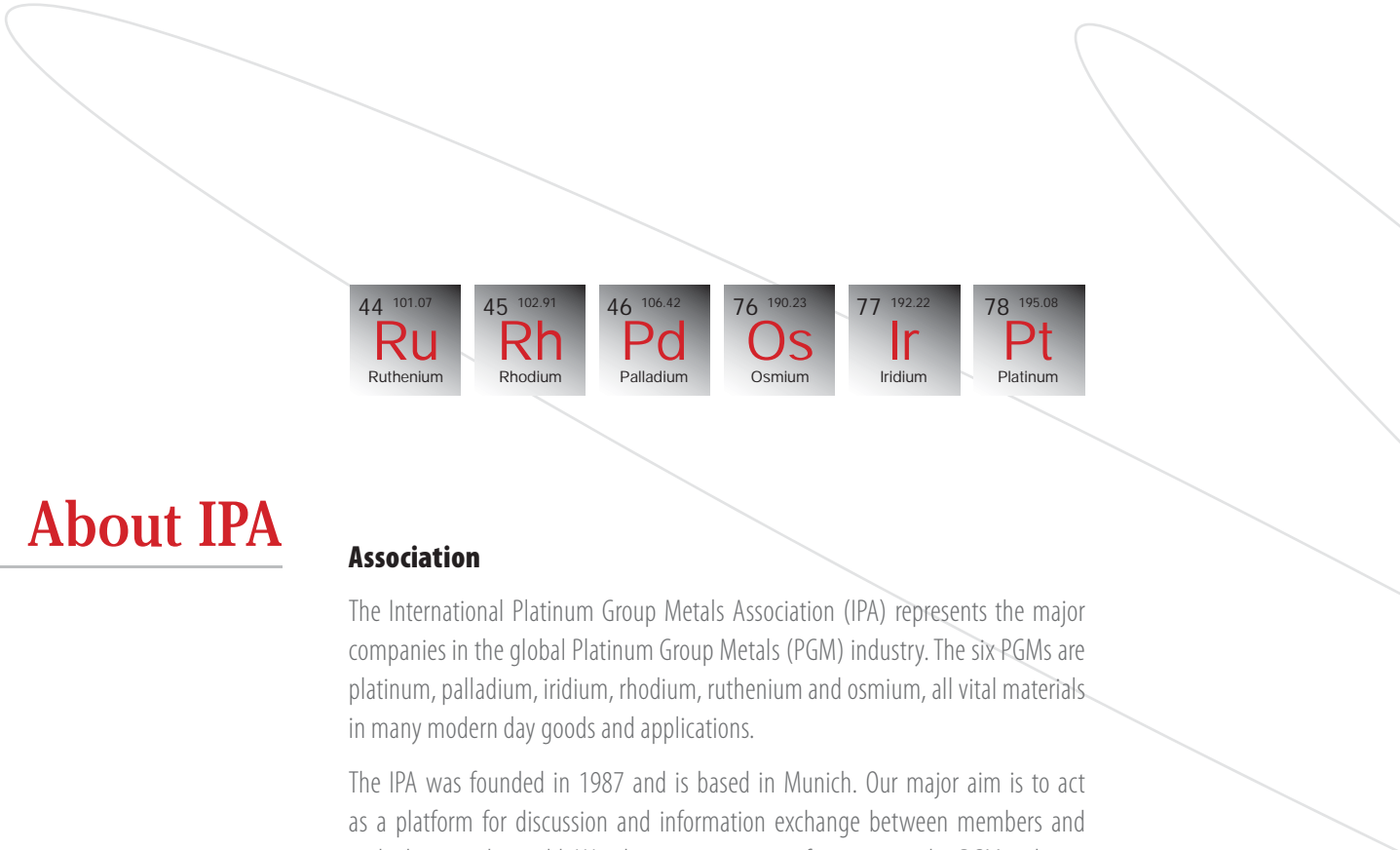
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About IPA

Association

The International Platinum Group Metals Association (IPA) represents the major companies in the global Platinum Group Metals (PGM) industry. The six PGMs are platinum, palladium, iridium, rhodium, ruthenium and osmium, all vital materials in many modern day goods and applications.

The IPA was founded in 1987 and is based in Munich. Our major aim is to act as a platform for discussion and information exchange between members and with the outside world. We also monitor areas of interest to the PGM industry such as emission control legislation, environment, health & safety, sustainable development, trade and communications.

Mission

The IPA is a non-profit organisation representing the interests of the leading mining, production and fabrication companies of the global Platinum Group Metals (PGM) industry.

It provides a platform to address issues of common concern and to jointly engage with stakeholders at the international level.



Objectives

The IPA's objectives are:

- to generate and promote factual information on PGMs;
- to represent the common interests of PGM mining, production and fabrication companies worldwide;
- to encourage and assist continuous progress in the healthy, safe and environmentally sound production and processing of PGMs;
- to define and communicate the industry's views on issues related to PGM production, use, and recycling;
- to liaise with other institutions of interest to the association and its members; and
- to monitor trends and developments, identify opportunities and risks.

IPA

mission
and objectives



IPA

what we do and how we work

Structure

Headed by a board consisting of representatives from member companies, the organisation holds membership meetings twice a year, usually once during London Platinum Week in May and once in October. Our working committees and groups meet regularly throughout the year.

The IPA currently has three committees:

- *The Security Committee* consists of experts, drawn from our members, who discuss issues such as safety, theft prevention and the use of fingerprinting to identify and track materials.
- *The Communications Committee* is made up of communications experts within our membership base whose role it is to communicate the values and benefits of PGMs to diverse audiences. They have developed a set of key messages outlined further on page 14.
- *The PGM Jewellery Committee* has been established to share information on the development and marketing of platinum and palladium jewellery in global markets.



When appropriate, the IPA forms ad hoc working groups with mandates for specific topics or issues. *The REACH Working Group*, for example, monitors the challenges and consequences of the EU regulation governing the registration, evaluation and authorisation of chemicals. The Group is helping the PGM industry fulfil the requirements of this new law, which will impact considerably on companies wishing to market chemicals to the EU. *The REACH Working Group* is closely linked to the *European Precious Metals Federation* and the *Precious Metals Consortium*.

Beside personal contacts and regular meetings, the IPA team communicates with members via a bi-weekly internal IPA Bulletin, covering new legislation, industry trends and activities at IPA, and our new website (www.ipa-news.com) which features an extranet for members, offering minutes, reports, presentations and other information for download.

IPA

what we do and
how we work

Platinum Group Metals

the power
to improve lives



PGMs in everyday life

Innovative solutions in the fields of technology, healthcare and the environment are being made possible by PGMs.

The six platinum group metals platinum, palladium, iridium, rhodium, ruthenium and osmium, are not household names; in fact, apart from platinum, many people will never have heard of them before. They are, however, crucial to our daily lives and are used to make a wide range of products from laptop screens to aircraft turbines, anti-cancer drugs to mobile phones and vehicle emission controls (catalytic converters) to gasoline. PGMs play a key role in the manufacture, or are components, of one in every four items manufactured today. They are also critical to future choices in several fields including power generation, transportation and healthcare.

Found together in nature, and similar in their chemical properties, PGMs are located next to each other in the periodic table.

While all PGMs are rare, they are highly durable and can be used extremely efficiently - meaning that a very little goes a very long way. When recycled, over 95% of PGMs are recovered through highly efficient recycling techniques.



Environment

Rising pollution, diminishing resources and mounting waste are challenges that require thoughtful and integrated solutions. The PGM industry is at the very heart of these solutions and is committing significant R&D funds to develop advanced technologies to reduce pollution and conserve scarce resources. The industry is simultaneously making great strides in recycling and waste reduction initiatives.

The use of platinum, palladium and rhodium in catalytic converters to minimize harmful exhaust emissions from vehicles is already widespread with significant benefits for human health. The availability of catalytic converters and their steady improvement is a pre-requisite for legislators in many countries to enforce stricter limits to emissions from vehicles.

The next major environmental contribution could be fuel cells, a technology using platinum catalysts that will bring about a revolution in the way we power cars, houses and offices, and will catapult us into the new hydrogen economy.

Platinum Group Metals

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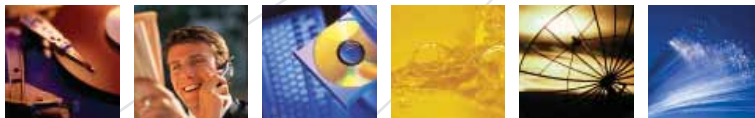


Health & safety

It is no exaggeration to say that PGMs help to save lives: as a catalyst in the manufacture of many pharmaceuticals; as key elements in cancer treatment and as components in surgical procedures.

Drugs are used to combat cancer containing compounds of platinum as an active ingredient. Cisplatin and carboplatin have the unique property of inhibiting the splitting and growth of cancerous cells and are used in chemotherapy particularly for ovarian and testicular cancers. Palladium is now also being used in similar treatments.

Thanks to their biological compatibility, strength and durability, PGMs are widely used in surgical procedures and in implants, including devices such as pacemakers, defibrillators and cardiovascular stents which are at the forefront in the battle against coronary diseases.



Technological progress

The single largest electronic application for platinum is in computer hard disks, often alloyed with cobalt to improve magnetism and storage capabilities.

PGMs, in particular palladium and ruthenium, are also key to the efficiency and reliability of components crucial to the operation of computers (and other electronic devices), such as ceramic capacitors and integrated circuits.

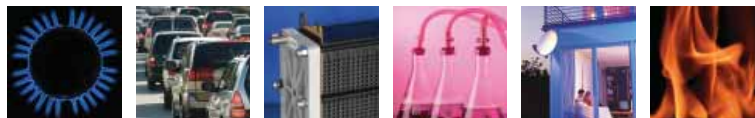
As well as their role in electronic devices, PGMs may, in future, offer a new leap forward in mobile telecommunications technology. Compact fuel cells employing PGMs and PGM alloys as catalysts are being developed to provide more reliable and efficient sources of power for mobile telephone handsets, eliminating the need for regular electrical re-charging.

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Fuel cells – tomorrow's technology

Fuel cells represent a highly innovative technology that will bring about a revolution in the way we power cars, houses and offices and will catapult us into the new hydrogen economy.

Fuel cells are a rapidly developing energy source. They are electrochemical devices that produce electricity and heat from a fuel (often hydrogen) and oxygen. If this fuel is obtained from renewable sources, then fuel cells can be an important part of the energy chain, perhaps with hydrogen being used to store intermittent energy and fuel cells converting this hydrogen back to power when required.



Offering higher efficiencies than conventional technologies, fuel cells also operate quietly and without creating any emissions. Their modular construction means they can be scaled to suit a range of potential applications, from combined heat and power (CHP) for buildings to transport auxiliary power and portable power for mobile appliances.

Fuel cells have the potential to significantly increase the energy efficiency of cars and power generators while significantly reducing air pollution. Over the next few decades this new age technology could replace today's conventional combustion engines and stationary power systems.

Platinum Group Metals

the power
to improve lives



PGM Industry

key messages

PGMs benefit our everyday life

PGMs are precious, noble metals used in applications that enhance the environment and the quality of life. As such, they touch most aspects of our lives.

Innovative sector

The mining and fabrication of PGMs is a highly innovative sector. PGMs are the source of many new, cutting-edge technologies. The resource base is extensive, and demand is growing, stemming from these increasingly diverse uses of PGMs, and the enabling role they play in new technologies. All this enables the sector to offer great career opportunities and makes it extremely attractive to skilled workers.

Corporate social responsibility (CSI)

The PGM industry works closely with local communities in the countries in which it operates to increase standards of living and provide a sustainable local economy. The industry pays particular attention to the health, safety, and education of its workforce.



South Africa: Black Economic Empowerment (BEE) and beneficiation

South African PGM producers are committed to fulfilling their obligations regarding black economic empowerment (BEE) as well as metal beneficiation.

The environment

PGM-based products contribute to technologies that help reduce environmental damage. In addition, the industry itself is implementing programmes that minimise the impact of its operations on the environment.

Recycling

PGMs are highly energy efficient, reducing waste of resources. Their high capacity for recycling means less impact on the environment in comparison to many other materials that are discarded or difficult to recycle. The industry routinely recycles PGMs from their applications.

PGM Industry

key messages



IPA

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