

November 2018

RHODIUM



26 Fe	27 Co	28 Ni	29 Cu
44 Ru Ruthenium	45 Rh Rhodium	46 Pd Palladium	47 Ag
76 Os Osmium	77 Ir Iridium	78 Pt Platinum	79 Au



Rhodium is a chemical element with symbol Rh and atomic number 45. It is a rare, silvery-white, hard, corrosion-resistant and chemically inert transition metal. It is a noble metal and a member of the platinum group. It has only one naturally occurring isotope, Rh. Naturally occurring rhodium is usually found as the free metal, alloyed with similar metals. It is one of **the rarest and most valuable precious metals.**



Rhodium is found in platinum or nickel ores together with the other members of the platinum group metals. It was discovered in 1803 by William Hyde Wollaston in one such ore, and named for the rose colour of one of its chlorine compounds, produced after it reacted with aqua regia. The element's major use (approximately 80% of world rhodium production) is as one of the catalysts in the three-way catalytic converters. Because rhodium metal is inert against corrosion and most aggressive chemicals, and because of its rarity, rhodium is usually alloyed with platinum or palladium and applied in high-temperature and corrosion-resistive coatings. White gold is often plated with a thin rhodium layer to improve its appearance while sterling silver is often rhodium-plated for tarnish resistance.

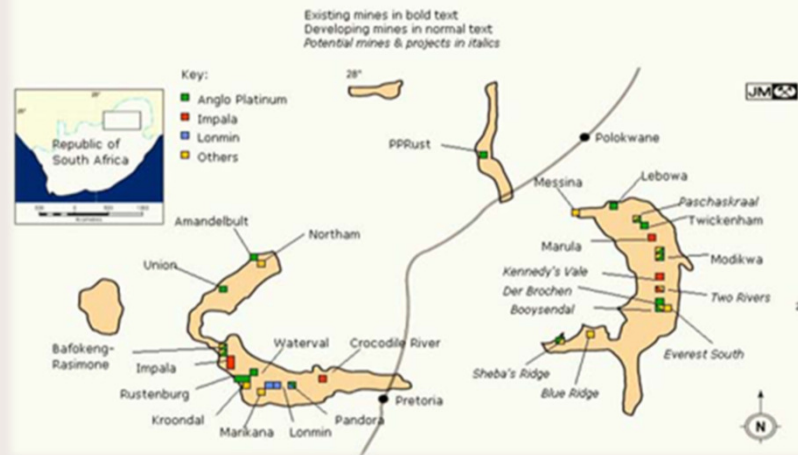




The industrial extraction of rhodium is complex because the ores are mixed with other metals such as palladium, silver, platinum, and gold and there are very few rhodium-bearing minerals. It is found in platinum ores and extracted as a white inert metal that is difficult to fuse. Principal sources are located in South Africa; in river sands of the Ural Mountains; and in North America, including the copper-nickel sulfide mining area of the Sudbury, Ontario, region.



Schematic Map of the Bushveld Complex
Showing Approximate Location of Platinum Mines and Projects



The main exporter of rhodium is South Africa (approximately 80% in 2010) followed by Russia. The annual world production is 30 tonnes. The price of rhodium is highly variable. In 2007, rhodium cost approximately eight times more than gold, 450 times more than silver, and 27,250 times more than copper by weight. In 2008, the price briefly rose above \$10,000 per ounce. The economic slowdown of the 3rd quarter of 2008 pushed rhodium prices sharply back below \$1,000 per ounce; the price rebounded to \$2,750 by early 2010, but in late 2013, the prices were less than \$1000. It is now \$2,400



Rhodium
Monthly Average prices between 30 Oct 2003 and 30 Oct 2018
JM Base Price \$/Oz
Rhodium average: \$2,294.82



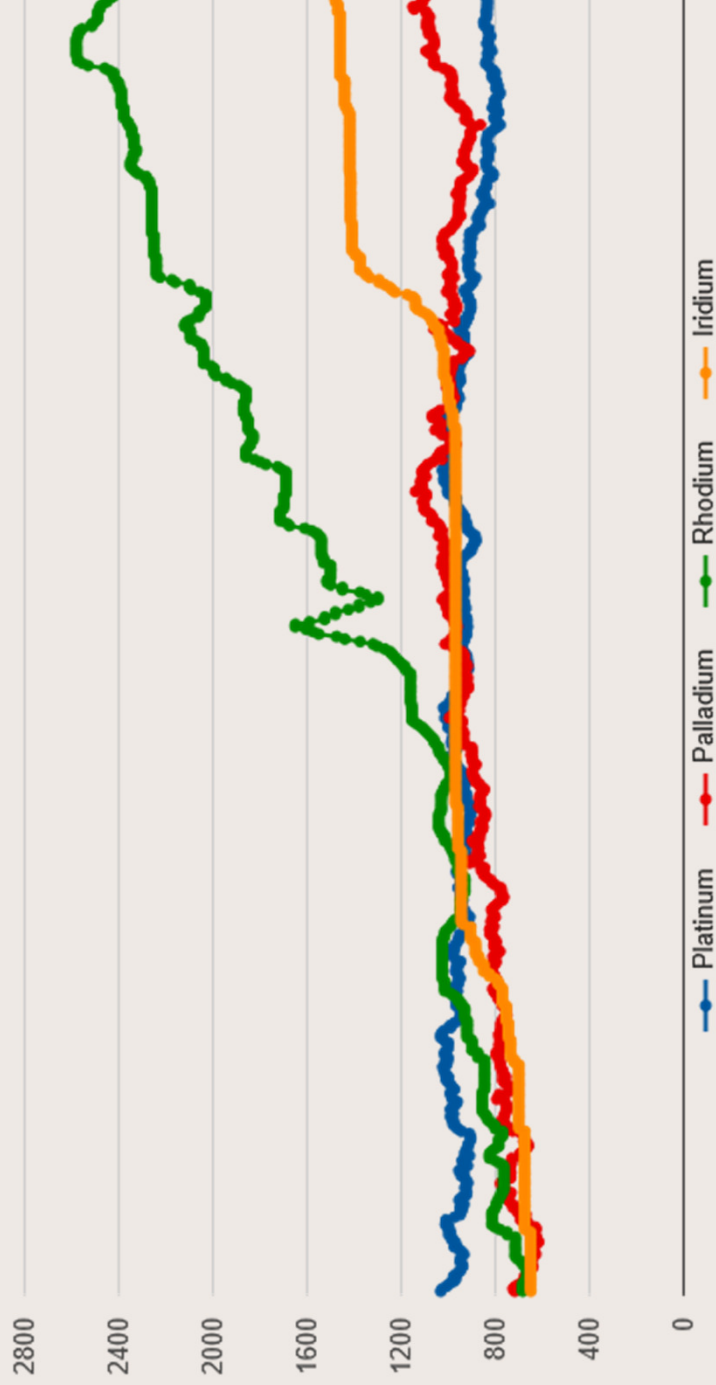


Platinum, Palladium, Rhodium, Iridium

Daily prices between 30 Sep 2016 and 30 Oct 2018

JM Base Price \$/Oz

Platinum average: \$930.35, Palladium average: \$904.49, Rhodium average: \$1,484.58, Iridium average: \$1,008.13





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The AfricaRhodium ETF is an exchange traded fund incorporated in South Africa. The fund is structured as non-interest bearing debentures that track the performance of the ZAR spot price of rhodium. Each debenture is 100% backed by Rhodium and equates to 1/100 of an ounce on issue date.



Legal Tender Coin





Baird & Co.
Bullion Merchants
LONDON

5
TROY OUNCES

999.0
Fine Rhodium

P01130

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Bullion Merchants
LONDON

ONE
OUNCE

999.0
Fine Rhodium

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Bullion Merchants
LONDON

HALF
OUNCE

999.0
Fine Rhodium

Baird & Co.
Bullion Merchants
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OUNCE

999.0
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