

Mineral Industry Surveys

For information, contact:

Ruth F. Schulte, PGM Commodity Specialist
National Minerals Information Center
U.S. Geological Survey
989 National Center
Reston, VA 20192
Telephone: (703) 648-4963, Fax: (703) 648-7757
Email: rschulte@usgs.gov

Christine Pisut (Data)
Telephone: (703) 648-7942
Fax: (703) 648-7975
Email:

Internet: <https://www.usgs.gov/centers/nmic>

PLATINUM-GROUP METALS IN JANUARY 2021

Imports for consumption of platinum-group metals (PGMs), including waste and scrap, were 42,300 kilograms (kg) in January 2021, more than double PGM imports in December 2020 and an increase of 19% compared with imports in January 2020 (table 1). The leading import sources for PGMs into the United States in January 2021 were, in descending order, the United Kingdom, South Africa, and Italy (tables 3, 4). In January 2021, exports of rhodium more than tripled and PGM waste and scrap more than doubled compared with exports in December 2020. Exports of palladium decreased by 48% and platinum exports decreased by 64% compared with December 2020 (table 5).

The Engelhard average January prices increased slightly for palladium and for ruthenium each, and increased by 6% for platinum, by 20% for rhodium, and by 81% for iridium in January 2021 compared with the previous month. Compared with average prices in January 2020, the January 2021 average prices increased by 7% for palladium, 10% for platinum, 12% for ruthenium, and more than doubled for iridium and rhodium each (figs. 1, 2; tables 1, 2).

Industry News

Eastern Platinum Ltd. (Canada) announced that it produced 134 metric tons (t) of pressed filter cake PGM concentrate in 2020 and delivered 32.18 t in December 2020 from its tailings retreatment project located at the Crocodile River Mine operation (South Africa). The concentrate was produced under an offtake agreement between Eastern Platinum's subsidiary, Barplats Mines (Pty) Ltd. (South Africa), and Impala Platinum Ltd. (South Africa) (Eastern Platinum Ltd., 2021).

Platinum Group Metals Ltd. (Canada) and subsidiary Lion Battery Technologies Inc. announced that Florida International

University was granted a second U.S. patent called "Battery Cathodes for Improved Stability" which covers methods that use PGMs catalysts in carbon materials for use as cathodes in lithium batteries. The technology was developed at Florida International University under a sponsored research agreement, which gives Lion Battery Technologies Inc. the exclusive rights to the technology as well as the patents granted (Platinum Group Metals Ltd., 2021).

References Cited

- Eastern Platinum Ltd., 2021, Eastern Platinum Limited is pleased to report the first delivery of PGM circuit D pressed filter cake concentrate and provide a company update: Vancouver, British Columbia, Canada, Eastern Platinum Ltd. press release, January 6. (Accessed March 10, 2021, at <https://eastplats.com/eastern-platinum-limited-is-pleased-to-report-the-first-delivery-of-pgm-circuit-d-pressed-filter-cake-concentrate-and-provide-a-company-update/>.)
- Platinum Group Metals Ltd., 2021, Platinum Group Metals Ltd. subsidiary Lion Battery Technologies granted second US patent new provisional patent filed for PGMs in lithium batteries: Vancouver, British Columbia, Canada, Platinum Group Metals Ltd. press release, January 19. (Accessed March 10, 2021, at <https://www.platinumgroupmetals.net/investor-relations/news/press-releases/press-releases-details/2021/Platinum-Group-Metals-Ltd.-Subsidiary-Lion-Battery-Technologies-Granted-Second-US-Patent-New-Provisional-Patent-Filed-for-PGMs-in-Lithium-Batteries/default.aspx>.)

List services and web feed subscribers are the first to receive notification of USGS minerals information publications and data releases. For information on how to subscribe, go to <https://www.usgs.gov/centers/nmic/minerals-information-publication-list-services>.

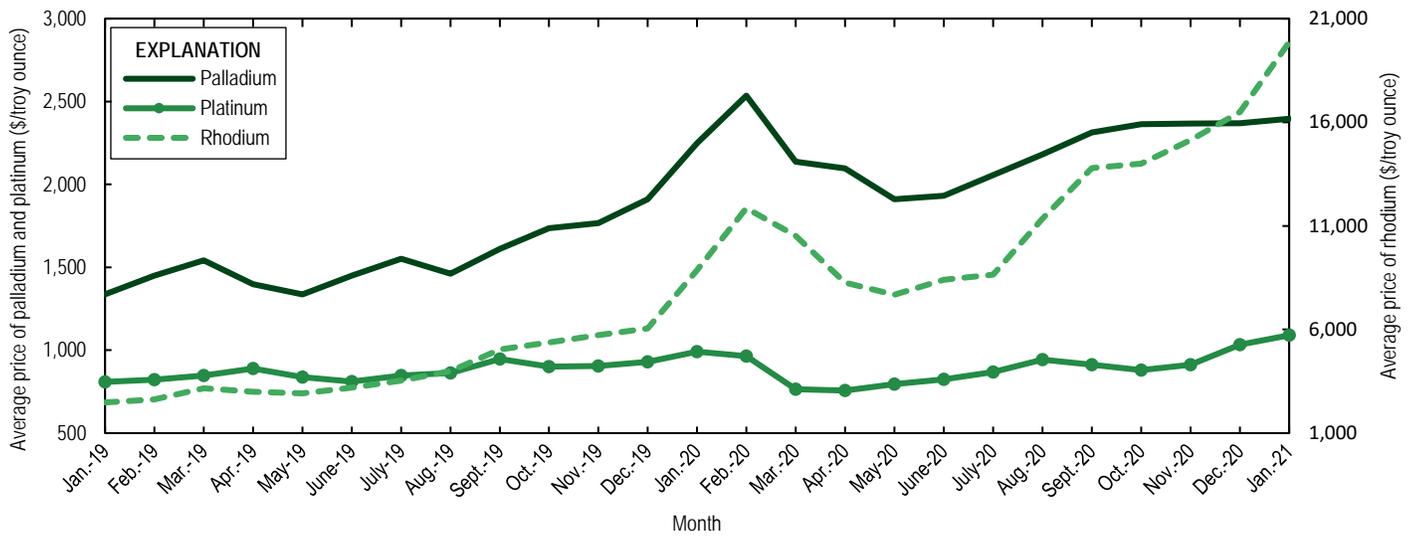


Figure 1. Engelhard unfabricated average monthly prices for palladium, platinum, and rhodium in dollars per troy ounce from January 2019 through January 2021. Source: S&P Global Platts Metals Week.

TABLE 1
U.S. SALIENT PLATINUM-GROUP METALS STATISTICS¹

(Kilograms metal content, unless otherwise specified)

	2020			2021
	November	December	January– December	January
Mine production: ²				
Palladium	1,270 ^r	1,270 ^r	14,600 ^r	1,270
Platinum	367 ^r	367 ^r	4,200 ^r	367
Total	1,630 ^r	1,630 ^r	18,800 ^r	1,630
Imports for consumption: ³				
Palladium	5,830	7,030	76,400	6,900
Platinum	4,490	5,130	64,800	3,070
Iridium	151	357	1,620	193
Osmium	--	--	1	--
Rhodium	2,020	2,120	20,700	1,840
Ruthenium	2,620	670	13,900	1,360
Waste and scrap ⁴	22,500	3,190	204,000	28,900
Total	37,600	18,500	381,000	42,300
Exports: ³				
Palladium	6,000	6,380	49,600	3,310
Platinum	3,150	3,130	28,800	1,120
Iridium, osmium, ruthenium	145	129	1,440	261
Rhodium	160	33	1,470	121
Waste and scrap ⁴	3,290	1,480	33,200	3,190
Total	12,700	11,200	115,000	7,990
Price, average (dollars per troy ounce): ⁵				
Palladium	2,367.21	2,369.10	2,205.27	2,396.58
Platinum	912.58	1,032.81	886.02	1,090.32
Iridium	1,676.32	1,940.48	1,633.51	3,510.53
Rhodium	15,138.16	16,485.71	11,205.06	19,860.53
Ruthenium	280.00	280.00	271.83	285.00

^rRevised. -- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Data estimated based on publicly reported quarterly data.

³Source: U.S. Census Bureau.

⁴Includes waste and scrap for all platinum-group elements. Previously included within platinum.

⁵Source: S&P Global Platts Metals Week.

TABLE 2
PLATINUM-GROUP METALS PRICES¹

(Dollars per troy ounce)

	Palladium	Platinum	Iridium	Rhodium	Ruthenium
2020:					
Low:					
Price	1,585.00	610.00	1,490.00	6,000.00	255.00
Date	Mar. 17	Mar. 19	Jan.–Feb. ²	Mar. ²	Jan.–Apr. ²
High:					
Price	2,790.00	1,085.00	2,600.00	17,150.00	280.00
Date	Feb. 19	Dec. 31	Dec. 30 and 31	Dec. 31	May–Dec. ²
Price, average	2,205.27	886.02	1,633.51	11,205.06	271.83
2021, January:					
Low:					
Price	2,332.00	1,009.00	3,000.00	17,650.00	280.00
Date	Jan. 27	Jan. 26	Jan. ²	Jan. 4	Jan. ²
High:					
Price	2,469.00	1,133.00	4,000.00	22,150.00	300.00
Date	Jan. 4	Jan. 21	Jan. ²	Jan. 19	Jan. ²
Price, average	2,396.58	1,090.32	3,510.53	19,860.53	285.00

¹Quotes from Engelhard.

²Occurred multiple days in month(s) listed.

Source: S&P Global Platts Metals Week.

TABLE 3
U.S. IMPORTS FOR CONSUMPTION OF PLATINUM METAL, BY COUNTRY OR LOCALITY¹

(Kilograms metal content, unless otherwise specified)

Country or locality	Platinum grain and nuggets		Platinum sponge		Other unwrought platinum		Platinum, other		Platinum coins	
	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)
2020:										
November	12	\$361	2,270	\$64,900	194	\$9,710	1,780	\$71,400	233	\$7,290
December	7	239	3,260	102,000	713	23,500	1,020	41,000	131	4,620
January–December	162	4,780	30,900	874,000	5,370	255,000	25,900	853,000	2,510	75,300
2021, January:										
Australia	--	--	--	--	--	--	--	--	113	4,140
Austria	--	--	--	--	--	--	33	2,040	33	1,180
Belgium	--	--	103	3,420	--	--	(2)	15	--	--
Brazil	--	--	--	--	--	--	(2)	4	--	--
Canada	15	544	--	--	--	--	47	1,680	54	1,950
China	--	--	--	--	--	--	--	--	3	91
Colombia	--	--	--	--	49	1,560	--	--	--	--
Costa Rica	--	--	--	--	--	--	69	2,380	--	--
France	--	--	8	262	--	--	18	465	--	--
Germany	--	--	486	17,400	82	2,960	183	11,500	--	--
Hong Kong	--	--	--	--	(2)	10	--	--	--	--
Ireland	--	--	--	--	--	--	2	40	--	--
Italy	--	--	168	5,710	--	--	1	36	--	--
Japan	--	--	--	--	9	322	2	66	--	--
Mexico	--	--	--	--	--	--	--	--	1	6
Singapore	--	--	--	--	2	363	23	946	--	--
South Africa	--	--	928	29,200	9	620	--	--	--	--
Switzerland	--	--	8	279	109	3,830	53	1,810	--	--
Taiwan	--	--	--	--	--	--	431	3,520	--	--
Thailand	--	--	--	--	--	--	(2)	7	--	--
United Kingdom	--	--	--	--	2	97	6	201	17	460
Total	15	544	1,700	56,300	262	9,770	870	24,700	221	7,830

-- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 4
U.S. IMPORTS FOR CONSUMPTION OF PLATINUM-GROUP METALS, BY COUNTRY OR LOCALITY¹

(Kilograms metal content, unless otherwise specified)

Country or locality	Palladium ²		Iridium ²		Osmium ²		Rhodium ²		Ruthenium ²		Waste and scrap ³	
	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)
2020:												
November	5,830	\$444,000	151	\$7,310	--	--	2,020	\$625,000	2,620	\$23,000	22,500	\$171,000
December	7,030	450,000	357	12,600	--	--	2,120	766,000	670	5,650	3,190	132,000
January–December	76,400	4,490,000	1,620	70,100	1	\$17	20,700	4,590,000	13,900	117,000	204,000	1,500,000
2021, January: ⁴												
Algeria	--	--	--	--	--	--	--	--	--	--	45	1,600
Belgium	130	10,100	--	--	--	--	78	37,700	--	--	--	--
Brazil	--	--	--	--	--	--	--	--	--	--	65	5,020
Canada	346	26,600	--	--	--	--	--	--	--	--	374	37,700
Chile	--	--	--	--	--	--	--	--	--	--	17	27
Czechia	--	--	--	--	--	--	--	--	--	--	59	2,110
France	(5)	3	--	--	--	--	--	--	--	--	20	753
Germany	476	37,900	34	1,690	--	--	267	146,000	183	1,600	50	1,940
Guatemala	--	--	--	--	--	--	--	--	--	--	18	599
Hungary	--	--	--	--	--	--	--	--	--	--	22	1,630
Italy	1,070	21,100	--	--	--	--	562	50,800	--	--	179	5,820
Japan	246	10,700	19	571	--	--	--	--	--	--	517	16,500
Korea, Republic of	156	12,000	--	--	--	--	10	5,520	--	--	--	--
Malaysia	--	--	--	--	--	--	--	--	--	--	10	314
Mexico	--	--	--	--	--	--	--	--	--	--	1,280	30,600
Russia	1,830	138,000	--	--	--	--	108	60,400	--	--	--	--
South Africa	2,070	148,000	105	4,650	--	--	396	199,000	1,160	8,410	--	--
Switzerland	509	40,600	--	--	--	--	(5)	90	--	--	--	--
Thailand	--	--	--	--	--	--	--	--	--	--	208	7,140
United Kingdom	62	4,970	34	1,630	--	--	417	233,000	12	104	26,000	17,600
Other	--	--	1	18	--	--	(5)	9	--	--	46	1,610
Total	6,900	450,000	193	8,550	--	--	1,840	732,000	1,360	10,100	28,900	131,000

-- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Unwrought and other forms.

³Includes waste and scrap for all platinum-group elements.

⁴The 20 countries and (or) localities with the greatest total platinum-group metal imports are listed. All others are included in the "Other" category.

⁵Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 5
U.S. EXPORTS OF PLATINUM-GROUP METALS, BY COUNTRY OR LOCALITY¹

(Kilograms metal content, unless otherwise specified)

Country or locality	Palladium ²		Platinum ²		Iridium, osmium and ruthenium ^{2,3}		Rhodium ²		Waste and scrap ⁴	
	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)
2020:										
November	6,000	\$357,000	3,150	\$97,500	145	\$6,100	160	\$66,800	3,290	\$176,000
December:	6,380	427,000	3,130	120,000	129	2,340	33	16,400	1,480	105,000
January–December	49,600	2,970,000	28,800	930,000	1,440	24,900	1,470	428,000	33,200	1,400,000
2021, January: ⁵										
Australia	2	136	7	255	17	487	--	--	(6)	8
Belgium	108	8,060	44	1,860	1	7	13	8,020	667	20,000
Canada	473	36,500	86	4,680	--	--	(6)	5	--	--
China	7	530	27	654	1	18	(6)	10	--	--
Costa Rica	3	265	43	1,020	--	--	--	--	--	--
France	6	546	7	166	(6)	5	--	--	--	--
Germany	147	11,600	316	11,800	1	14	24	15,300	47	1,980
Hong Kong	33	2,560	11	249	183	1,590	(6)	19	--	--
India	33	2,560	36	2,000	--	--	--	--	--	--
Ireland	1	127	28	732	--	--	--	--	--	--
Israel	21	1,670	(6)	11	--	--	--	--	--	--
Italy	1,400	108,000	1	38	2	60	--	--	--	--
Japan	327	25,300	14	497	54	2,300	--	--	317	15,100
Korea, Republic of	207	15,600	165	5,550	--	--	25	15,300	--	--
Mexico	7	530	34	1,100	--	--	--	--	--	--
Singapore	(6)	32	98	2,850	--	--	--	--	--	--
South Africa	(6)	4	--	--	--	--	42	25,600	--	--
Switzerland	327	25,200	10	363	--	--	4	2,430	60	1,910
Taiwan	76	6,420	31	2,020	(6)	13	--	--	--	--
United Kingdom	118	8,940	148	6,700	1	10	12	6,980	2,090	89,700
Other	8	612	12	413	1	12	--	--	5	169
Total	3,310	255,000	1,120	43,000	261	4,520	121	73,700	3,190	129,000

-- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Unwrought and other forms.

³Gross weight.

⁴Includes waste and scrap for all platinum-group elements. Previously categorized as "Platinum waste and scrap."

⁵The 20 countries and (or) localities with the greatest total platinum-group metal exports are listed. All others are included in the "Other" category.

⁶Less than ½ unit.

Source: U.S. Census Bureau.