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Timeless Quality



JEWELLERS ASSOCIATION OF AUSTRALIA

What's with **OSMIUM?**

Until recently, the incredibly dense and rare precious metal osmium was only known by its appearance on the periodic table during chemistry lessons. The distribution of osmium on global markets was almost non-existent. Being the "last" precious metal, osmium is today a hot tip in the jewellery and investment spheres.

Today, osmium is fast becoming one of the most valuable metals in the jewellery market but the story of just how it came to be there is nothing short of a remarkable coincidence.

The Osmium Story

In Russia and Switzerland a few decades ago, two enthusiastic researchers with a background in chemistry and metallurgy set themselves the task of crystallizing precious metals, something that in chemistry that had never been achieved before. As is often the case in scientific circles, two individuals were simultaneously tackling the same task often without knowledge of the other.

Eventually, progress stalled for both researchers. To remedy this, they consulted the Internet – which, back in those days, was at a fledgling stage –and became acquainted. During their first meeting it became apparent that a cooperation of effort would be mutually beneficial. Soon after, and not without overcoming considerable bureaucratic hurdles, the Russian partner moved to Switzerland to continue his work under improved conditions. Together, the two men worked obsessively on the idea of crystallisation which would bring

metals into a form that seems at first glance to be of natural origin, but in reality was the result of an incredibly complex process.

The crystallisation of precious metals is somewhat comparable with the synthetisation of diamonds, which also occurs under extremely high pressures and temperatures. However, the growth of crystals from the gas phase is much more complex and, above all, dangerous due to the high pressures in the supply lines. In fact, the two men once had an explosion in their lab and it was only a matter of luck that there were no serious consequences.

One of their first insights revealed that
precious metals grows under special
conditions that are vastly different from other
es, non-precious metals. As a rule of thumb,
between 140 and 200 crystallisations per
metal were required, which must be carried
out sequentially to iteratively adapt the
parameters in a step-by-step fashion. Since a

crystallisation cycle lasts up to three months, it can take up to 40 years to find the correct settings, build the furnaces in the right way, and implement the required safety measures.

With success in 2012, the Swiss part of the duo entered the world of precious metal

Classic Fusion Tourbillon Firmament by Hublot, the Swiss luxury wristwatch manufacturer

- This wristwatch had its premiere at Baselworld 2014. Baselworld is considered the most important exhibition for wristwatches and is held every year in Switzerland.
- Premiere of the first watch ever featuring an osmium dial.
- Price of a single watch: CHF 150,000.

trading and began looking for partners who would use and sell crystallised precious metals.

These attempts fell on deaf ears, as the banks and financial service providers in the precious metals industry did not recognize the importance of the discovery.

He visited one trade fair after another without success until day he came across a journalist who owned shares in various mines and subsequently founded an international television broadcaster, Commodity TV. Coincidentally, Commodity TV included financial channels which illuminated the sales market of precious metals.

The two men literally bumped into each other at a gold and precious metals trade show in Germany, 2013 and within a week a worldwide exclusive contract was signed.

Osmium in its pure and non-crystalline form 'osmium sponge' is a hazardous substance. The cooperation launched osmium on the market for the first time in its crystallised, non-toxic form. Recent work with various customs and tax authorities has resulted in osmium being brought to market through Osmium-Institutes that certify osmium internationally. Investor safety was paramount in the considerations which led to the introduction of an Osmium Identification Code.

For more information on how to use osmium, jewelers can contact their local Osmium-Institute to request the osmium processing guidelines and enquire about obtaining wholesaler

point in time, the internationally represented Osmium-Institutes are still required to grant every jeweller wholesaler status, even if initial volumes of merchandise are

status. At this

This investigation into osmium will be continued in next issue.

Call for Action

- Now is the time to take the osmium path!
- Interested jewellers are encouraged to request the osmium processing guidelines and contact the Osmium-Institute in Australia.
- New designs and creations are always welcome and will be made internationally

known by the Osmium-Institutes.

 Please send enquiries to: info_AUS@osmium-institute.com

