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In Case You Missed It:

Business News from the Field

Hyperion Expands in Titanium

Charlotte, North Carolina, USA: Hyperion Metals Limited inked an agreement with Blacksand Technology LLC to investigate the commercial development of spherical titanium metal powders using the granulation-sintering-deoxygenation (GSD) technology and an option to enter into an exclusive license agreement for the patents associated with the technology. Hyperion has exclusive rights to the GSD technology that offers major advantages in the production of spherical titanium for use in 3D printing. The Hyperion and Blacksand partnership may develop a sustainable, zero carbon, low-cost, and fully integrated titanium spherical metal powder supply chain in the U.S.

Scientists Plunge New Pacific Depths

Offshore, Japan: Scientists with the International Ocean Discovery Program broke two drilling records in the Pacific Ocean off Japan's northeast coast. Working at an ocean depth of 8,023 meters, the expedition achieved the record for the deepest water site drilled and cored within scientific ocean-drilling history. Additionally, a total of 37.74 meters of sediment core was curated, setting a new scientific drilling depth record for the deepest sub-sea level sample at 8,060.74 meters below sea level. Research of the retrieved core samples may offer new insights into the region's earthquake history and could lead to discoveries of rare earth elements.

Cliffs Opens HBI Plant

Cleveland, Ohio, USA: Steel producer Cleveland-Cliffs Inc. hosted a ribbon-cutting ceremony in June at its state-of-the-art direct reduction plant in Toledo, Ohio, to recognize six months of continued operation and production. The hot-briquetted iron (HBI) plant uses natural gas to create materials for blast furnaces used in the steel production process. The new plant has the capacity to produce 1.9 million metric tons of HBI per year. The plant will not only reduce the company's greenhouse emissions but also boost profitability through enhanced productivity in blast furnaces and the avoidance of prime scrap purchases from third parties. The plant employs nearly 160 employees and cost $1 billion to build.

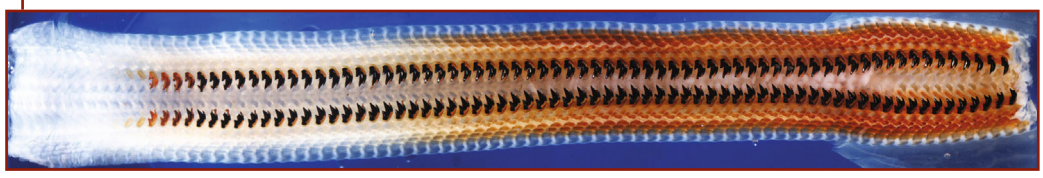
Eck, Imperial Explore Scandium

Manitowoc, Wisconsin, USA: Eck Industries Inc., an aluminum castings producer, and Canada's Imperial Mining Group Ltd. partnered to research scandium as an addition to an aluminum-magnesium alloy that could increase strength and expand applications. Scandium has been used in niche aerospace alloys for the defense sector mainly due to a limited supply. Growing investment in scandium production, such as Rio Tinto's large new scandium oxide plant in Quebec, Canada, has sparked interest in its potential as an alloying agent in advanced lightweight materials for the transportation sector.

Zijin, Citic Metal Buy DRC Copper

Fujian, China: China's Zijin Mining announced one of its subsidiaries and Citic Metal will each buy 50% of the copper output from the first phase of its Kamoa-Kakula mine in Democratic Republic of Congo (DRC). The Zijin unit Gold Mountains (H.K.) International Mining Co. Ltd. and trader Citic Metal, part of state-owned conglomerate Citic Group, will split the initial offtake from what is expected to be the world's highest-grade major copper mine. Canada-based Ivanhoe Mines, Zijin's main partner in the Kamoa Copper joint venture, also announced the deals. First-phase output is projected to be approximately 200,000 tonnes of copper per year.

Do you have business or industry news of interest to the minerals, metals, and materials community? Submit your announcement or press release to Kaitlin Calva, JOM Magazine Managing Editor, at kcalva@tms.org for consideration.



Evanston, Ilinois, USA: The teeth of chiton are helping scientists understand how to develop durable materials. The large rock-chewing mollusk has teeth that contain santabarbaraite, a rare iron mineral previously found only in rocks. Chiton teeth are more than three times harder than human teeth and one of the hardest materials known to nature. Based on the minerals found in chiton teeth, researchers have developed a bio-inspired ink for 3D printing ultrahard materials. (Photo credit: Northwestern University)