



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.

## In Case You Missed It: Business News from the Field

### Discovery May Prevent Cracked Smartphone Screens

**Troy, New York:** Rensselaer Polytechnic Institute researchers have discovered how to minimize the breakability of silica glass, which is used for mobile device screens. Through molecular dynamics simulations which are generally consistent with experimental observations, they found that glass produced by consolidating silica nanoparticles under pressure can be stretched up to 100 percent. During processing, the compression changes the material structure to become five-fold silicon, where five oxygen atoms bond with the silicon instead of the typical four, and enhanced ductility occurs as a result.

### Kyocera Acquires German-based Advanced Ceramic Business

**Kyoto, Japan:** Kyocera Corporation's German-based European headquarters, Kyocera Fineceramics GmbH, completed the acquisition of the advanced ceramics business from Friatec, a manufacturer and seller of ceramic and plastic components based in Mannheim, Germany. The acquisition gives Kyocera its second fine ceramic manufacturing facility in Europe and positions the corporation to meet the rising demand for fine ceramic components used in industrial machinery.

### Fab AE Prints Medical Necessities in Deployment Zone

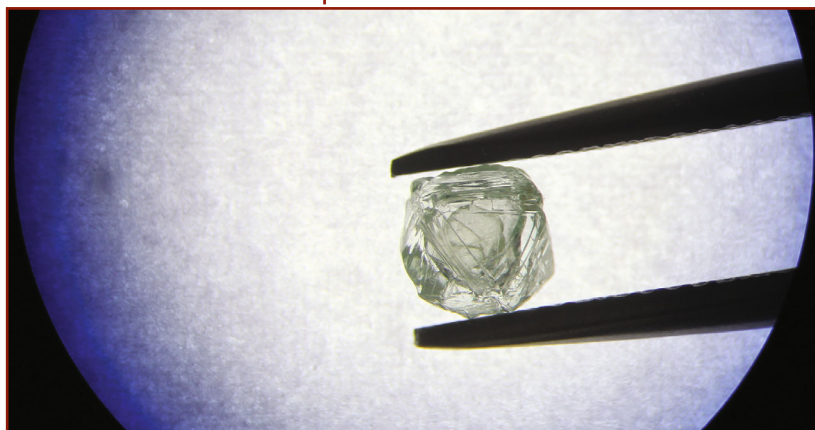
**Bethesda, Maryland:** A pilot program, called Fabrication in Austere Environments, or Fab AE, has shown a 3D printer capable of biofabrication could expedite medical treatments for troops in harsh environments. From an undisclosed desert location, the printer successfully fabricated knee cartilage and several medical supplies, including surgical tools made of material that could be sterilized on site, antibiotic bandages, and a surgical model of a vertebrae. This initiative was a collaborative effort between the Uniformed Services University of the Health Sciences, U.S. Military Academy at West Point, and The Geneva Foundation, along with Script and Techshot.

### MOL and Thyssenkrupp Begin Construction of Polyol Plant

**Tiszaújváros, Hungary:** Thyssenkrupp broke ground in September for a new polyol plant in Tiszaújváros, Hungary. The MOL Group is investing \$1.3 billion in the complex that is expected to be commissioned in 2021 and will produce 200,000 tons of polyols annually. Polyol is a plastic raw material used in numerous industries, from automotive manufacturing to construction to the clothing industry. The new Tiszaújváros complex will produce polyether polyols using efficient and environmentally friendly technologies such as the propylene oxide from hydrogen peroxide process (HPPO) developed by Thyssenkrupp and Evonik.

### Neste's Aviation Fuel Makes Lufthansa Flights Greener

**Espoo, Finland:** Neste, a leading renewable fuel producer, will provide sustainable aviation fuel to the European airline Lufthansa. Lufthansa will use the green product blended with fossil jet fuel for flights departing from Frankfurt. Delivery of the fuel to Lufthansa began earlier this year. This agreement strengthens a collaboration started in 2011 between the two companies when Lufthansa tested Neste's sustainable aviation fuel on 1,187 flights between Frankfurt and Hamburg.



**Yakutsk, Russia:** Alrosa unearthed a rare gem described as a diamond within a diamond from its mine at the Nyurba Mining and Processing Division. The company's R&D division determined the internal diamond formed first and experienced a second stage of growth that formed the exterior diamond. The gem is called Matryoshka, named after Russian nesting dolls.