



Lightning Motorcycles and CBMM bet on niobium technology to break land speed record

The US electric motorcycle company and CBMM, the world's leading expert on niobium technology, team up to design and incorporate innovative applications into various components

Boost performance and speed. This is the goal that led Lightning Motorcycles, known for being pioneers in the e-mobility industry and electric motorcycles innovators, to team up with the Brazilian company CBMM, world's leading supplier of niobium products and technology.

Signed in January, the partnership with the Silicon Valley-based company aims to leverage the applications of niobium in the mobility sector and to create an electric two-wheeler to break the current commercial motorcycle Land Speed Record (LSR). The initiative intends to innovate and test the metal in various components of the vehicle, in order to improve its performance and, eventually, exceed the 250 mph (around 403 km/h) mark.

According to CBMM's Market Development Manager, Mariana Perez de Oliveira, the partnership with Lightning Motorcycles is especially strategic, as it will serve as a platform for experimenting and testing niobium technologies in high-performance vehicles. "The idea is to demonstrate, in practice, the advantages of niobium applications, since the addition of the metal can bring numerous benefits to the project, aiming at weight reduction and greater energy efficiency, as well as contributing directly to safety." Mariana adds that the agreement is long-term, since the prototype will also serve as a concept for future projects.

"Weight is an enemy of the bike."

Richard Hatfield, CEO of Lightning Motorcycles

"Light weight and high efficiency are essential for high-performance motorcycles, we have used some applications of niobium to achieve these goals," says Lightning Motorcycles CEO and Founder Richard Hatfield. Confident in the partnership, he states. "We are excited to work with CBMM to further innovate niobium technologies that can be translated into meaningful benefits to not just high performance electric motorcycles but to all types of vehicles".

ELECTROMOBILITY

The CBMM manager complements that "in addition to the technologies already being used by Lightning in the battery charging module, niobium offers advantages when applied to other materials that go beyond weight reduction, allowing a true revolution in mobility". In the steel industry, for example, the application of niobium is already a reality in the manufacture of high-strength steel, widely used in the automotive industry, as it allows the development of more resistant components, playing a crucial role in increasing vehicle safety.



Niobium's potential use in the automotive industry is very broad. It can enable improvements in the braking system such as reduced wear, greater durability, and better efficiency; to its use in the cathodes and anodes of vehicle batteries in order to obtain unique characteristics, such as ultra-fast charging and greater energy density, compared to technologies used in traditional lithium-ion batteries. "Currently, niobium-containing technologies are among the most advanced materials for the development of the next generation of batteries", highlights Mariana.

About CBMM

CBMM is the world's leading supplier of niobium products and technology, with over 400 clients in 50 countries. Fully integrated from the mine to the final products, CBMM also provides expert technical assistance to customers around the globe. Based in Brazil, with offices and subsidiaries in China, the Netherlands, Singapore, Switzerland and the United States, the company provides cutting-edge products and technology to the infrastructure, mobility, aerospace, healthcare and energy industries. In 2019, CBMM invested in 2DM, a company dedicated to graphene and, in 2021, in startups Echion and Battery Streak. The investments are aimed at new developments in materials for lithium-ion batteries. For more information, visit: [CBMM.com](https://www.cbmm.com)

About Lightning Motorcycles

Lightning produces the most technologically advanced electric motorcycles in the world. Lightning's mission is to build world-class, two-wheel electric transportation that provides the efficiency, performance and affordability required to enable mainstream adoption of electric motorcycles globally. Lightning is a technology company with 14 years of developing EV capabilities through innovation and competition on both the racetrack and in the product market. For more information, visit: [Lightningmotorcycle.com](https://lightningmotorcycle.com)

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