

# Lion Alternative Energy files provisional patent for nano-carbon coating for applications in the hydrogen-economy

*Nano-carbon coatings have a significant role in enabling the safe transport of hydrogen as we transition to a zero-carbon future*

LONDON, UK, July 19, 2021

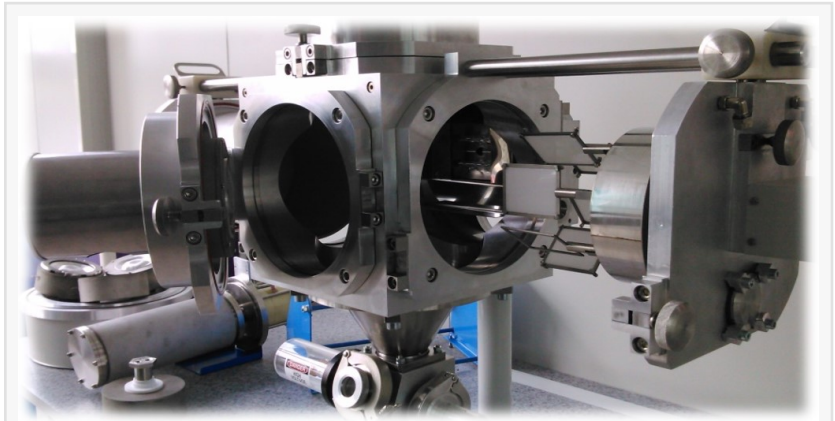
/EINPresswire.com/ -- [Lion Alternative Energy](#), a company dedicated to developing technologies that support the transition to sustainable, clean energy, announce that it has filed a provisional patent application with the U.S. Patent and Trademark Office (USPTO) for its nano-carbon coating technology.

Nano-carbon coatings offer improvements in long-term mechanical stability, biocompatibility and antimicrobial activity, as well as elastic, hydrophilic and tribological properties to a surface.

Lion Alternative's nano-carbon coating technology deposits layered nano-hydrocarbon structures with concentrations of up to 90% or more in the diamond phase (sp<sup>3</sup>) without depressurization of the working chamber.

The ability to efficiently and reliably apply these coatings has significant applications in the emerging hydrogen economy as well as for medical implants and devices.

Transporting compressed hydrogen results in significant corrosion of traditional pipe



Coating chamber of Lion Alternative's nano-carbon coating device



Prototype device for Lion Alternative's nano-carbon coating technology

infrastructure resulting in substantial risk of fires and explosion. Lion's nano-carbon coating technology has the potential to make a major contribution to solving this issue.

Lion also extends its appreciation to its U.S. patent law firm, [Carter Deluca & Farrell LLP](#), for its advice and efficient filing of the provisional patent application.

Once converted into a U.S. non-provisional application, the patent application will provide protection for Lion Alternative's nano-carbon coating technology, effective upon a grant of a U.S. patent. Lion Alternative also plans to pursue an international (PCT) patent application, from which national stage patent applications can be submitted in both industrial jurisdictions and developing countries around the world.

For more information about Lion Alternative and its nano-carbon coating technologies, visit [www.lionplc.com](http://www.lionplc.com) or contact Kostas Liapis, Executive Chairman, on +44 20 7060 5999 or +44 7503 100 999.

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