

Kepler Aerospace Ltd. and Kepler Fusion Inc. Announce Texatron™ Patent Filing

Patent Titled "Systems, Methods and Apparatus of a Fusion Nuclear Reactor".

MIDLAND, TEXAS, USA, May 31, 2022 /EINPresswire.com/ -- Kepler announced today that it has filed its first 20 claims within Patent Application #: 17/736,084, and that this patent application was accepted on May 24, 2022 by the United States Patent and Trademark Office. The patent application has a filing date of May 3, 2022 and is the first of several patent applications to be filed on Kepler's Texatron™ technologies. The Texatron™ is the brainchild of Kepler's Chief Scientist, Dr. John Brandenburg, PhD. Kepler believes that these initial claims will form the foundation of a paradigm shift in clean, green technology.



The Kepler Texatron™ project is best described as a "fast pulsed Torsatron" where a Torsatron is a simple type of donut-shaped twisted coils demonstrated to confine plasmas, like conventional Tokamaks or Stellarators. Unlike the more complex Stellarator, where electric current runs in opposite directions in adjacent coils, in conventional Torsatrons, all the currents run in the same direction within the coils and this has the effect of minimizing electro-magnetic stresses on the structure. Also, whereas conventional Torsatrons are normally run-in steady state, requiring additional plasma heating by radio-waves or particle beams, in contrast the innovative Kepler Texatron™ delivers the electricity to the coils in a fast-rising pulse. The virtue of our approach, already demonstrated by Kepler in thousands of proof-of-principle experiments, is that the plasma can be rapidly heated by resistive heating and by converging shock waves. The helical magnetic configuration of the toroidal plasma equilibrium is determined by flux invariants "burned" into the initial plasma by a RTP (Rifled Toroidal Pinch) conductor where "rifling" on the toroidal inductor determines the final magnetic geometry

These features mean the Kepler Texatron™ design can be the basis of a compact, portable,

simple, and high intensity fusion reactor, capable of burning deuterium and helium3, a reaction that produces little to no radiation. Kepler expects to have a working prototype of its Texatron™ based fusion power plant by the end of this year and a commercially viable reactor in 2023. Kepler's goal with this reactor is to create a stand-alone unit that would easily fit in the back of a pickup truck and could conservatively produce at least 10 megawatts of usable power. Kepler is developing, testing and manufacturing the Texatron™ at its facilities in Midland, Texas.

The filing of this patent application marks a significant milestone in the development and launch of Kepler's game changing, revolutionary non-radioactive fusion technologies.

Kepler Fusion Inc. is a 100% owned subsidiary of Kepler Aerospace Ltd. For more information about this acquisition please contact: info@kepleraerospace.com

Kepler Aerospace Ltd. and Kepler Fusion Inc. ("Kepler") is a private company. This news release contains certain "forward-looking information". Forward looking information is frequently characterized by words such as "plan", "expect", "project", "intend", "believe", "anticipate", "estimate", "may", "will", "would", "potential", "proposed" and other similar words, or statements that certain events or conditions "may" or "will" occur. These statements are only predictions. Forward-looking information is based on the opinions and estimates of management at the date the information is provided and is subject to a variety of risks and uncertainties and other factors that could cause actual events or results to differ materially from those projected in the forward-looking information. Kepler undertakes no obligation to update forward-looking information if circumstances or management's estimates or opinions should change, unless required by law. The reader is cautioned not to place undue reliance on forward-looking information.

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