

Why did Acceleron close a \$24 million funding round?

Today, Acceleron announced it has closed a US \$24 million funding round to help develop prototypes of key reactor components and has now completed 100 hours of continuous fusion at its test facility at the Paul Scherrer Institute in Villigen, Switzerland. The experiments are aimed at gathering data rather than producing useful amounts of energy.

How does Acceleron fusion work?

Its reactor will work by firing a beam of muons at a pellet of nuclear fuel kept under extremely high pressure. Using this approach, Acceleron's plant could operate below 1,000 °C -- not exactly "cold" fusion, but not nearly as hot as other strategies such as magnetic confinement or inertial confinement.

Why did Knaian & Acceleron get a \$2 million grant?

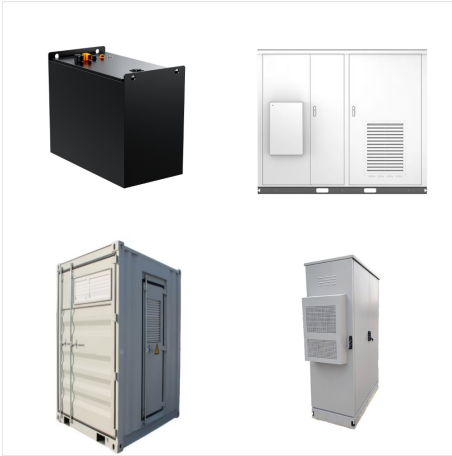
Prompted by these advancements, Knaian and Acceleron cofounder Seth Newburg applied for a \$2 million Advanced Research Projects Agency-Energy grant to investigate ways to boost the efficiency of the approach, which they received in 2020. They won another \$500,000 in grant money from ARPA-E in 2023.

How does Acceleron slash the energy required to produce muons?

Acceleron's approach is to first try to slash the energy required to produce muons, in part by piggybacking on improvement in accelerator efficiency. This has jumped from around 20 percent in the 1980s to 50 percent today, Knaian says, and the U.S. Department of Energy targets 75 percent for next-generation accelerators.

What is a muon in Acceleron?

The muons at the heart of Acceleron's approach are from the same family of subatomic particles as electrons, but roughly 200 times their mass. They are created when protons and neutrons collide, which generates particles known as pions that then decay into muons.



Provider of clean energy systems intended to power cities, charge electric cars, and fuel rockets. The company's platform utilizes muon-catalyzed fusion technology to generate limitless energy, providing industries with clean energy and addressing the engineering challenges associated with bringing fusion power to the grid.



Acceleron Fusion, Inc. has raised \$15 million to continue developing cold nuclear fusion using muon-catalyzed reactions. Instead of the high heat and pressure needed in traditional fusion (which mimics conditions inside a star), Acceleron is experimenting with muons, subatomic particles that replace electrons in hydrogen atoms.



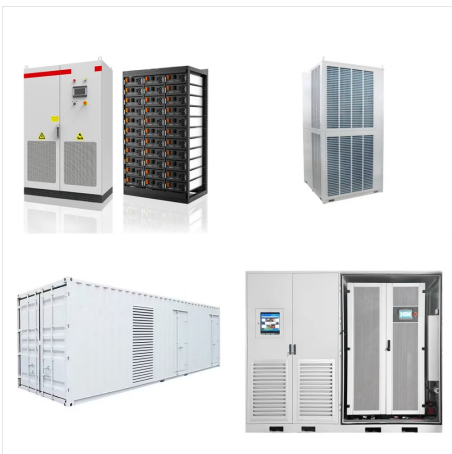
The first company to build a power plant that can produce electricity that can be sold to the grid en masse could start chipping away at the multi-trillion-dollar global energy market. Tech firms, in particular, have been eyeing fusion and nuclear startups as possible pollution-free solutions to their AI-induced power demands.



Fusion is clean, safe, abundant energy -- to help reverse climate change, enhance energy security, and power the future. Acceleron Fusion Electrical Engineer Musheera Khandaker prepares our high-density fusion cell for a test run.



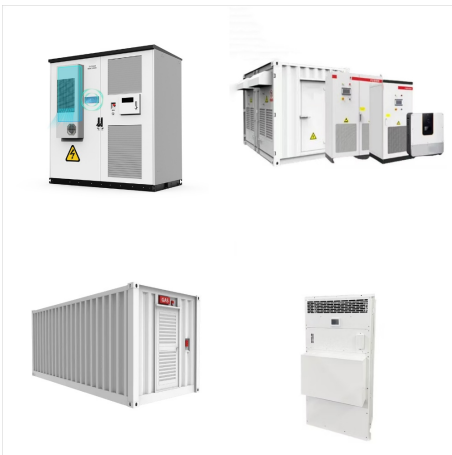
This plasma must then be contained with powerful magnets or lasers, which are complex and energy-intensive. Acceleron's technology bypasses these requirements by operating below 1,000°C. This



Acceleron Fusion, a pioneer in muon-catalyzed fusion energy, has closed a \$24 million Series A funding round. The funding will fuel Acceleron's efforts to advance its unique approach to clean, safe, and abundant energy.



Acceleron Fusion (formerly NK Labs), founded in 2023 and based in Cambridge MA, is focused on developing limitless clean energy through muon-catalyzed fusion. In muon-catalyzed fusion, muons, which are subatomic particles similar to electrons but much heavier, are used to replace electrons in hydrogen atoms.



6 ? Acceleron has now completed more than 100 hours of continuous fusion in its machine, using the High Intensity Proton Accelerator facility and Swiss Muon Source at the Paul Scherrer Institute. The experiments are aimed at gathering data rather than producing useful amounts of energy. Acceleron Fusion is a pioneer in muon-catalyzed fusion



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