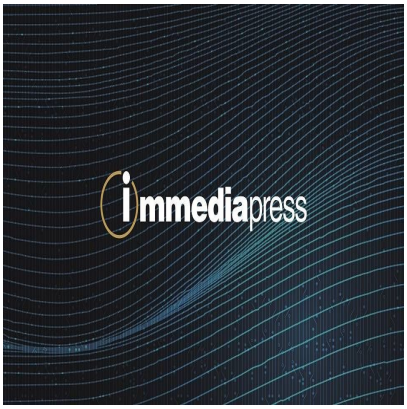


AMPERA AND LAWRENCE LIVERMORE NATIONAL LABORATORY ANNOUNCE STRATEGIC PARTNERSHIP FOR ADVANCED NUCLEAR FUEL DEVELOPMENT

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Descrizione

COMUNICATO STAMPA â?? CONTENUTO PROMOZIONALE

PALM BEACH GARDENS, Fla., Aug. 26, 2026 /PRNewswire/ â?? AMPERA today announced a strategic partnership project with the U.S. Department of Energy/National Nuclear Security Administration national laboratory, Lawrence Livermore National Laboratory, to further the development of scalable, advanced nuclear fuel for use in advanced nuclear energy systems, including compact and subcritical reactor platforms.

The goal is to enable resilient, cost-effective and sustainable manufacturing of advanced Tri-Structural Isotropic (TRISO) fuel, accelerating AMPERAâ??s strategy to establish a scalable and secure domestic advanced nuclear fuel supply chain. This collaboration will leverage the joint expertise, equipment, software and resources to develop, characterize and optimize processes for advanced nuclear fuel.

â??Public-private projects like this show the value of connecting LLNLâ??s world-class research capabilities with industry partners who have a clear technology need and sharp commercial focus,â?• said Dr. Viktor Sukhotskiy, Research Engineer and Principal Investigator, Lawrence Livermore National Laboratory. â??Working with AMPERA gives us the opportunity to apply joint expertise to a challenging nuclear fuel problem, while also continuing to mature liquid metal jetting as an advanced manufacturing technology. That combination, balanced with scientific progress, technology transition and national security relevance, is what makes the collaboration so exciting.â?•

The collaboration will evaluate and optimize liquid-metal-jetting technology to produce highly uniform, spherical thorium-232 kernels for TRISO fuel. The project builds on previous research led by Sukhotskiy and his team where a new particle production prototype was built using droplet-based liquid-metal-jetting technology. The work includes computational modeling, materials and nozzle compatibility testing, high-temperature process development, particle characterization, safe radiological handling,

and transfer of scalable process and design rules to support future commercialization.

AMPERAâ??s advanced fuel platform is built on proprietary processes protected by trade secrets and a growing intellectual property portfolio. This includes more than 60 patents covering proprietary liquid-metal-jetting technology, together with additional patent filings specifically directed toward advanced TRISO fuel manufacturing processes and technologies. In June, AMPERA announced its advanced fuel strategy to support the development of a secure thorium fuel supply chain and future advanced fuel production capabilities.

â??Lawrence Livermore National Laboratory has a long and distinguished record of translating advanced science into technologies of national importance,â?• said AMPERA Founder and CEO Brian Matthews. â??Developing a scalable domestic capability to manufacture advanced nuclear fuel is fundamental to AMPERAâ??s strategy. We believe this collaboration can accelerate the technical foundation required to vertically integrate our fuel supply, reduce cost and supply-chain risk, and support the deployment of our compact subcritical nuclear energy systems.â?•

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AMPERA believes advanced fuel cycles, combined with advanced manufacturing and next-generation neutron technologies, can play an important role in enabling a new generation of compact, scalable nuclear energy systems. The collaboration supports AMPERAâ??s long-term strategy to develop advanced fuel for its solid-state, subcritical nuclear energy platform, designed to provide compact, factory-built power systems with up to 30 years of operation without refueling.

AMPERA is developing a subcritical micronuclear reactor platform designed to deliver safe, reliable and energy-dense power for data centers, defense, industrial and maritime applications. Unlike conventional reactors, subcritical systems rely on an external neutron source to initiate and sustain operation, creating an additional layer of operational control while enabling innovative fuel-cycle approaches.

On July 1, AMPERA unveiled what it believes to be the first full-scale, additively manufactured demonstration module of its nuclear core architecture. The spherical, monolithic gyroid structure was 3D printed in silicon carbide and represents the architecture being developed to support up to 30 years of operation without refueling.

About AMPERAAMPERA is an advanced energy technology company developing scalable power solutions for data center, defense, industrial and maritime applications. Through its â??Power Now. Nuclear Next.â?• strategy, AMPERA combines advanced manufacturing, artificial intelligence and next-generation energy technologies to deliver reliable, factory-built power systems. Its proprietary Integrated Energy Architectureâ?¢ supports waste heat recovery, conventionally fueled power generation and advanced subcritical nuclear energy, creating a seamless pathway to the future of clean, abundant energy. Learn more at www.amperaglobal.com.

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