Scientific Breakthrough: Direct Synthesis of Monolayer Graphene Oxide (GO) from Natural Gas

In a historic advancement, LTEOIL, in collaboration with Texas A&M announces a world first: Direct Synthesis of Monolayer Graphene Oxide (GO) from Natural Gas

COLLEGE STATION, TX, UNITED STATES, August 29, 2025 /EINPresswire.com/ -- World-First Scientific Breakthrough: LTEOIL and Engineering Faculty at Texas A&M University Achieve Single-Step Graphene Oxide Synthesis from Natural Gas

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>
> *Dr. David Staack, deputy vc for research for the TAMU System*

In a historic advancement that redefines materials science and sustainable manufacturing, LTEOIL, in strategic collaboration with researchers in the Mike Walker '66 Department of Mechanical Engineering and the Department of Chemical Engineering at Texas A&M University, proudly announces the world's first successful single-step synthesis of Graphene Oxide (GO) directly from natural gas, which may be powered entirely by clean electricity.

This patented process marks a paradigm shift in graphene production, eliminating multiple energy–and resource–intensive steps that have long challenged the commercialization of this miracle material. The new method is near net-zero emissions (NZE) and qualifies at the highest levels for tax and subsidy incentives, aligning with global environmental goals and industrial sustainability targets, focused on methane mitigation.

"We are not just producing a material — we are laying the foundation for the next era of human development," said Charles Martens, founder of LTEOIL. "This breakthrough sets the stage for a graphene-enabled economy, with unmatched sustainability and scalability."

This landmark partnership—established through LTEOIL's master research agreement with the Texas A&M Engineering Experiment Station—has a proposal underway to equip a research and development facility on the Texas A&M–RELLIS campus to showcase the versatility, commercial scaling, and industrial potential of this single-step technology.

This process offers unprecedented flexibility in form output, allowing the synthesis of:

Monolayer and multilayer graphene oxide
Nanosheets
Nanospheres
Various structured forms
Both conductive and non-conductive variants

These material formats have far-reaching applications across industries, from semiconductors and energy storage to advanced construction, coatings, and biomedical systems.

SYNTH-GRAPH™ world's first (patented): direct synthesis of monolayer graphene oxide (GO) from natural gas

With this development, graphene is poised to become a new industrial commodity, giving rise to the building blocks of the future. “Graphene is not just a material — it is a platform,” said Dr. David Staack, deputy vice chancellor for research for the Texas A&M University System, co-inventor, and a mechanical engineering professor at Texas A&M. “We are thrilled to play a leading role in scaling a process that could define the next industrial revolution.”

LTEOIL is engaging with stakeholders, researchers, investors, and government leaders in this shared vision of progress to further develop strategic partnerships, create licensing opportunities and provide demonstrations. LTEOIL’s subsidiary EVONRG™ is tasked with manufacturing, marketing and distributing the groundbreaking product SYNTH-GRAPH™.

For media inquiries, partnership interest, or more information, please contact:

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About LTEOIL:

LTEOIL-EVONRG is a pioneering energy and advanced materials technology firm focused on unlocking scalable, sustainable solutions for the industries of tomorrow. With its breakthrough in single-step graphene oxide synthesis, EVONRG’s SYNTH-GRAPH™ is positioned to lead the next

wave of clean industrial innovation.

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