

Salgenx, a Division of Infinity Turbine LLC, Unveils Laser Printer's Potential to Revolutionize Battery Industry

Salgenx Revolutionizes Battery Industry with Multi-Dimensional Laser Printer for Continuous Roll-to-Roll Manufacturing.

MADISON, WISCONSIN, USA, June 12, 2023 /EINPresswire.com/ -- [Salgenx](#), a forward-thinking division of [Infinity Turbine](#) LLC, is poised to disrupt the battery industry with its groundbreaking development of a multi-dimensional processing tool. Leveraging the capabilities of a modified standard laser printer, Salgenx envisions a future where [continuous manufacturing](#) using roll-to-roll (R2R) laser induced (LI) processes paves the way for remarkable advancements in battery technology.

The modified laser printer holds immense potential for various applications within the battery industry. Here are some of the key areas where Salgenx is driving innovation:

1. Graphene Foam Production: By utilizing Kapton tape or similar dielectric hybrid materials on a spool, the modified laser printer enables the production of graphene foam. This breakthrough material holds significant



Laser printing graphene electrode



Simultaneously producing graphene from flow battery energy storage

promise in the creation of supercapacitors and ultracapacitors, unlocking unprecedented levels of energy storage and power delivery.

2. Conversion of Coated Materials:
Salgenx's pioneering approach allows toner-coated materials to be converted into graphene layers. These graphene layers can be subsequently exfoliated by the Salgenx saltwater battery electrode, opening up new avenues for enhanced battery performance and efficiency.

3. Printed Graphene Sensors and QR Codes:
The modified laser printer empowers the printing of graphene-based sensors activated by electrochemical and strain-sensing scenarios. These sensors exhibit wear over time, providing invaluable insights into component life and enabling real-time monitoring. Additionally, the printer enables the creation of graphite and graphene QR codes for precise labeling of active electrode components which may simultaneously sense wear. Salgenx also will introduce on-demand capacitive sensors that visually display wear and utilization levels, offering a comprehensive view of component health.

4. Enhanced Saltwater Battery Functionality:
Leveraging electrostatic charging capabilities, the laser printer enables the efficient charging of activated carbon, a vital component in saltwater batteries. This breakthrough facilitates on-demand cascade activation, allowing for additional storage based on the specific requirements of sodium storage in saltwater batteries.

5. Charged Particle Printing:
Salgenx's modified laser printer supports the precise printing of charged particles onto electrode



Converting standard laser printer to electrode and graphene printing

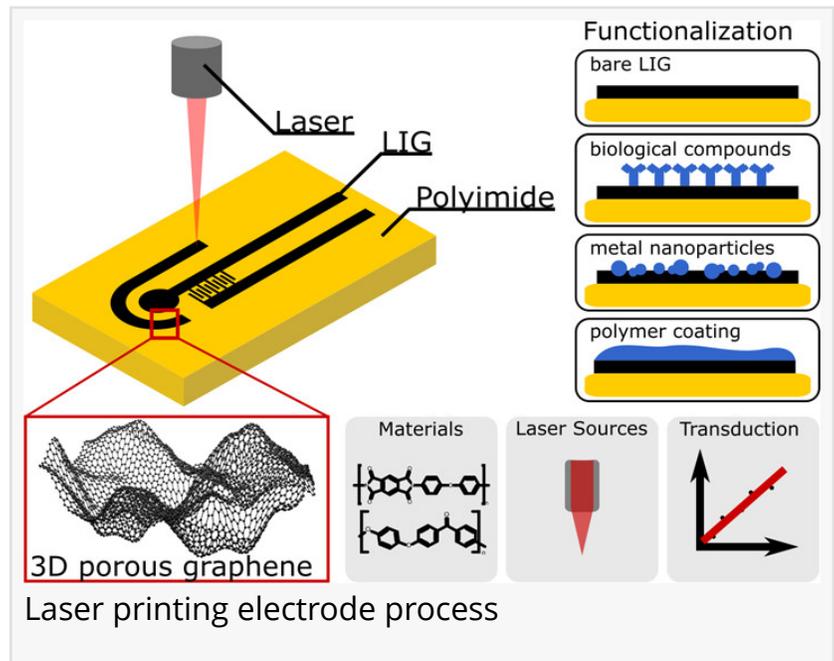


Example of Ultra Capacitor

substrates and catalysts, facilitating advanced research and development in battery technologies. This feature opens up new possibilities for exploring novel materials and optimizing battery performance.

6. Tuning of Charged Particles for Desalination:

Salgenx's innovative printer allows for the fine-tuning of charged particles specifically for saltwater battery capacitive deionization (CDI) applications. This breakthrough enhances desalination processes, contributing to the development of more efficient and sustainable water treatment systems.



7. Graphene-Charged Membrane Printing:

With its electrostatic capabilities, the modified laser printer can print graphene-charged sheet membranes, revolutionizing desalination and water filtration systems. These membranes hold immense potential for enhancing water treatment processes, ensuring cleaner and safer water for various applications.

Salgenx's groundbreaking developments have the potential to revolutionize the battery industry. By harnessing the power of a modified laser printer and leveraging the roll-to-roll process, Salgenx is paving the way for continuous manufacturing and ushering in a new era of battery technology.

About Salgenx:

Salgenx, a division of Infinity Turbine LLC, is at the forefront of innovation in the battery industry. With a focus on continuous manufacturing using the roll-to-roll process, Salgenx is revolutionizing battery technologies and driving advancements in saltwater grid-scale energy storage, power delivery, and sustainable solutions.

About Infinity Turbine LLC:

Infinity Turbine LLC is a renowned technology development company dedicated to creating cutting-edge solutions across various industries. With a commitment to innovation and sustainability, Infinity Turbine LLC aims to transform industries through the development of groundbreaking technologies.

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Saltwater Battery Technology Report: <https://infinityturbine.com/flow-battery-technology-report.html>

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