

Stanford University Spin-Out, Energia, Unveils 6x Higher Density than Standard Lithium Batteries

NEW YORK, NY, USA, December 28, 2023 /EINPresswire.com/ -- Energia Power Systems ("Energia"), a pioneering power storage company emerging from Stanford University's research excellence, is set to revolutionize the energy storage landscape with groundbreaking scientific advancements. Leveraging cutting-edge research, Energia has achieved a major breakthrough in rechargeable sodium-ion and lithium-ion batteries featuring a thionyl chloride-based electrolyte, propelling them into a league of their own by producing lithium batteries with six times the charging power density of current lithium-based batteries. The technology was published in the journal Nature.

Key Features of Energia's Technology:

1. **Rechargeable Sodium-ion and Lithium-ion Batteries:** Energia's proprietary technology introduces rechargeable lithium thionyl chloride batteries, overcoming historical limitations in rechargeability. The addition of aluminum trichloride in sodium cells and lithium chloride in lithium cells results in remarkable reversibility, sustainability over large numbers of cycles, and elevated discharge capacities.
2. **Electrolyte Additives:** The rechargeability of these cells is attributed to electrolyte additives that facilitate the regeneration of redox-active species during both discharging and charging processes.

Applications Across Industries:

Energia's cutting-edge technology has diverse applications across various industries, including:

1. **Electric Vehicles (EVs):** Energia's advanced batteries will prove crucial in the EV sector, ensuring reliable and long-lasting power for electric vehicles.
2. **Renewable Energy Storage:** The innovative batteries will play a pivotal role in harnessing and preserving energy derived from sustainable sources such as solar and wind, contributing to the growth of renewable energy storage.

3. **Consumer Electronics:** Energia's advanced batteries will be instrumental in energizing a spectrum of devices, including smartphones, laptops, tablets, and various portable gadgets.

4. **Industrial Applications:** These batteries exhibit utility in powering industrial equipment, contributing to increased efficiency in various industrial processes.

Joseph Hernandez, Founder and Chairman of Energia, emphasizes the significance of these advancements, stating, "In our pursuit of innovation at Energia, we envision a future where energy storage transcends boundaries. Our breakthroughs in rechargeable batteries not only redefine resilience but also empower industries and individuals to embrace a sustainable and efficient energy era. Together, we are shaping a world where power is not just stored but transformed into possibilities."

[About Energia:](#)

Energia is an innovative power storage company emerging from Stanford University's research excellence. With cutting-edge technology, Energia is committed to redefining battery resilience and power storage systems to meet the evolving needs of diverse industries.

More information is available at:

www.energiapowersystems.com

References:

[Stanford News – Rechargeable batteries that store six times more charge](#)

[PV – New alkali metal-chlorine battery promises 6x energy density](#)

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