

#### What makes alsym a good battery company?

Our team and partners are striving to make battery production simple, affordable, and sustainable for the long term. Mukesh Chatter is the President, CEO and co-founder of Alsym Energy, a battery technology company developing high-performance, low-cost batteries to enable a zero-carbon electrified future for all.

#### What are alsym batteries made of?

Although the full makeup of Alsym's battery is still under wraps as the company waits to be granted patents, one of Alsym's electrodes is made mostly of manganese oxide while the other is primarily made of a metal oxide. The electrolyte is primarily water. There are several advantages to Alsym's new battery chemistry.

### What makes alsym different from lithium-ion batteries?

The company explains what differentiates its battery technology on its website: While Alsym and lithium-ion cells may look similar, we take advantage of inherently non-flammable and non-toxic materials, and our electrolyte is water-based. Alsym cells are also inherently dendrite-free and immune to conditions that could lead to thermal runaway.

### Where are alsym batteries made?

Alsym has been manufacturing prototypes at a small facility in Woburn,Massachusettsfor the last two years. Pictured is a view of the Alsym facility. Lithium-ion batteries are the workhorses of home electronics and are powering an electric revolution in transportation. But they are not suitable for every application.

### What are alsym batteries used for?

Alsym batteries are ideally suited to both temperate and warming climates, as well as infrastructure and industrial applications including datacenters, steel mills, and chemical plants. Alsym Energy will use the funds to grow its Boston-based team and expand its prototyping and pilot lines.

Alsym Green is the highest-performing non-lithium battery for stationary storage. It offers energy density that is 2x to 10x higher than competing technologies, stores up to 1.7 MWh of energy in a 20? BESS container, provides fast charge (4 hours) and flexible discharge (2 to 110 hours), and has 92% round-trip efficiency.

Alsym said its batteries can be manufactured in existing lithium-ion battery factories with little to no retrofitting required and without the need for expensive dry rooms, fire locks, and solvent recovery systems. Alsym has partnered with an automaker based in India in a joint effort to develop the batteries for EVs. The automaker is expected ...

Alsym Energy, a Boston-based startup that has developed an innovative lithium and cobalt-free battery, has reportedly drawn \$78 million during the company''s series C funding, led by the company ...



Boston, MA - Oct. 30th, 2024 - Woburn-based startup Alsym(TM) Energy, a developer of high-performance, non-flammable batteries for stationary storage, welcomed Yvonne Hao, Secretary of the Executive Office of Economic Development for Massachusetts, to its new 60,000-square-foot state-of-the-art facility in Malden.

Batteries power a lot of our modern technologies from cell phones to laptops. In the late 20th century, development in battery technology was mainly motivated by the rise of such portable consumer electronics, which required batteries of high energy density. In the 1990s, lithium ion batteries (LIBs) had taken over as the dominant technology.

Alsym(TM) Energy has developed a high-performance, inherently non-flammable, non-toxic, non-lithium battery chemistry. It's a low-cost solution that supports a wide range of discharge durations. With system-level energy densities ...

Alsym Energy"s CEO, Mukesh Chatter talks of lithium-ion battery sustainability as an in-demand component of new and evolving electric vehicles. Article. ... Batteries enable a more consistent and predictable energy supply by capturing surplus energy and ...

Alsym Green is the highest-performing non-lithium battery for BESS. Its performance profile offers energy density that is 2x to 10x higher than competing technologies, stores up to 1.7 MWh of energy in a 20? BESS container, ...

Alsym also says its batteries will be cheaper than lithium-ion, thanks to the less exotic materials and simpler packs. The startup is targeting around \$50 per kilowatt-hour for its cells, ...

For example, Alsym's revolutionary new technology uses materials that are readily available in North and South America, Australia, and Africa, as opposed to the critical minerals in lithium-ion batteries. Alsym batteries can also be made in existing lithium-ion factories, which means lower costs of reshoring production and faster progress for ...

Alsym said its batteries can serve grid-scale use cases, charging and discharging intermittent solar and wind generation. The batteries can discharge between 4 to 110 hours. The company's first product, called Alsym ...

According to Alsym, the battery will be suitable for applications requiring discharge durations of between 4 and 110 hours and can be fully charged in just 4 hours. The company describes this versatility to go from ...

Alsym(TM) Energy, a leading developer of non-lithium rechargeable battery technology, announced that it has successfully developed the industry's first high-performance, non-flammable battery storage technology suitable for warmer climates. Climates with abundant sun or wind are ideally suited to renewable energy production.



The European Parliament's commitment to banning new internal combustion engine cars by 2035 underscores the urgency of developing a more sustainable battery supply chain. As demand for key battery materials rises, the European Union (EU) is also preparing the industry for the measures of the EU Battery Regulation Amendment, a comprehensive ...

The company's batteries are also less sensitive to raw material shortages and price volatility due to their use of low-cost materials with robust supply chains. To accelerate the development of these affordable battery systems, Alsym is partnering with a leading India-based automaker in a joint effort to develop Alsym's batteries for EVs.

Forthcoming next-gen battery technologies will revolutionize BESS technology and battery storage overall with lower manufacturing costs, better safety, and non-toxicity. At Alsym, our team of battery storage veterans and innovators has been hard at work developing the next generation of battery storage technology for over eight years.

Varanasi sees Alsym as a platform company, and Chatter says Alsym is already working on other battery chemistries that have higher densities and maintain performance at even more extreme temperatures.

By Paul Lienert. June 15 (Reuters) - Alsym Energy, a seven-year-old Massachusetts startup, aims to halve the cost of electric vehicle batteries with a new design that eliminates lithium and cobalt ...

Aqueous Metal Oxide Batteries. Alsym aqueous batteries are a non-toxic alternative to lithium-ion that completely avoids lithium and cobalt and uses water as the primary solvent in the electrolyte and in the manufacturing ...

Cabinet enclosure for a nickel-hydrogen battery storage unit. Image: EnerVenue. The semi-metal antimony (pictured) is used in the cathode of liquid metal batteries made by start-up Ambri, together with a molten salt electrolyte and liquid calcium alloy anode. Image: Flickr user James St. John. Hydrogen and bromine flow battery unit. Image: Elestor.

The British Overseas Territory, which is used as a staging post to supply and defend the Falkland Islands, has an RAF base and a population of fewer than 1,000. There is besides a US base part of ...

Alsym"s five lithium-ion battery tips for consumers this winter: Park EVs in garages to prevent exposure to the lowest temperatures. While lithium-ion batteries can discharge at temperatures as ...

Low-cost, high-performance Alsym batteries can help OEMs position electric two and three-wheelers at price points competitive with ICE models, speeding adoption across both consumer and commercial segments. They can replace lead-acid, NiMH and lithium-ion batteries in many applications and combine performance and safety at price points that ...



Lithium-ion batteries are inherently flammable; burning EVs are much more difficult to extinguish than gas or diesel cars, and lithium-ion batteries can reignite hours (or even days) after a fire seems to be completely over. Alsym batteries are inherently non-flammable and non-toxic, significantly reducing the risk of injuries and property damage.

Batteries enable a more consistent and predictable energy supply by capturing surplus energy and storing it for later use. Batteries act as a buffer, bridging the gap between renewable energy generation and consumption, ensuring a reliable power supply even when the sun isn't shining or the wind isn't blowing. This energy storage is crucial for ...

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