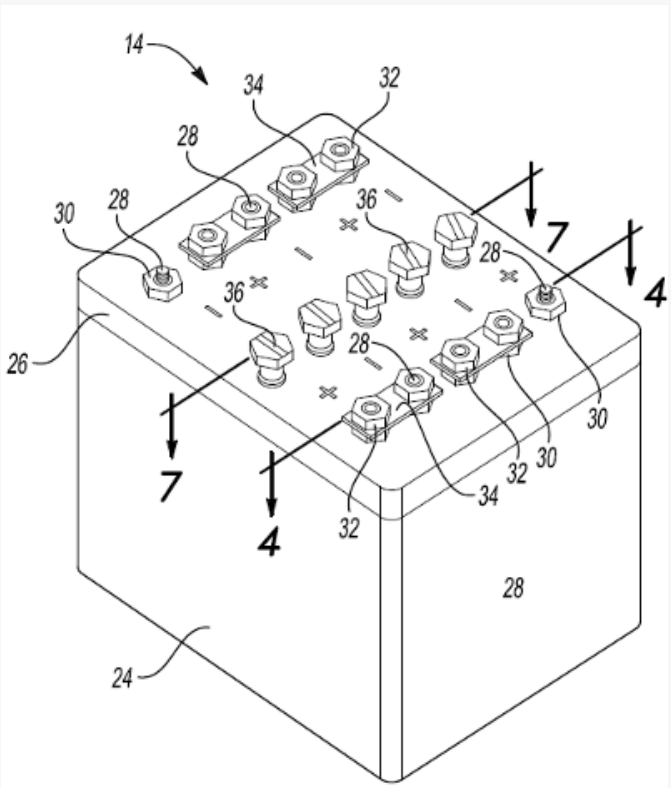
ZAF Energy Systems Expands Monobloc Patent Portfolio

ZAF expands its IP Patent Portfolio to 12 US Patents and 14 overall



US Patent Monobloc Batteries

JOPLIN, MISSOURI, UNITED STATES, September 16, 2021 /EINPresswire.com/ -- US Patent Application US2020/0259130A1, titled “Monoblocs and Monobloc Batteries,” has been allowed and will be granted as US11128002 on September 21st to ZAF Energy Systems Inc. (ZAF), a developer of next-generation zinc battery technologies. The patent will expand ZAF’s IP portfolio to 12 United States patents and 14 overall.

This is ZAF’s second monobloc patent, which will help pave the way for manufacturing an unrivaled high voltage Nickel-Zinc battery. The monobloc design allows for an aqueous based battery capable of 48V and can increase the energy by 33%, over a standard modular design. These batteries will provide a safe, cost effective, and environmentally benign alternative to Lithium-Ion and other high voltage battery chemistries. The monobloc design allows for the lowest cost, highest quality, and most energy dense design for automated manufacturing of high-volume Nickel-Zinc battery formats.

The Nickel-Zinc high voltage monobloc design can provide electrification solutions for numerous markets, including telecom, industrial, stationary energy storage, and transportation. The patented monobloc design can also be easily integrated into the aviation market, where Nickel-Cadmium is currently being used. The replacement of Nickel-Cadmium by Nickel-Zinc will solve many historical problems that have plagued the industry for years, including memory effects, electrolyte dry out, and environmental issues. ZAF’s Nickel-Zinc chemistry does not suffer from memory effects and the dry out failure mode has been eliminated with gas to water recombining devices. Many environmental issues are alleviated with Nickel-Zinc, as it does not contain cadmium and is RoHS compliant. The chemistry is also easily recycled in a low temperature process.

> The advantages of this monobloc architecture to enable mass-produced manufacturing is a crucial component for future commercialization of nickel-zinc batteries.”
>
> *Randy Moore*

According to Randy Moore, President and CEO of ZAF Energy Systems, “While we’ve proven the viability of the chemistry for the past several years, the advantages of this monobloc architecture to enable mass-produced manufacturing is a crucial component for future commercialization of nickel-zinc batteries.”

About ZAF Energy Systems, Inc.
Incorporated in 2011 with locations in Joplin, Missouri and Bozeman, Montana, ZAF Energy Systems develops and commercializes next-generation zinc battery technologies that use sustainable materials that can be safely and easily recycled. Its breakthrough battery technologies include Nickel-Zinc, Lithium-Zinc, and Zinc-Air. ZAF’s primary and rechargeable batteries provide long-life and economical solutions in a safe package for a variety of applications. For more information, visit: www.zafsys.com

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