FOR THE EXCLUSIVE USE OF KATHARINA.GERBER@LICAPTECHNOLOGIES.COM

From the Sacramento Business Journal: https://www.bizjournals.com/sacramento/news/2022/11/03/innovation-awards-licap-technologies.html

Sacramento Region Innovation Awards: LiCAP Technologies Inc.

Nov 3, 2022, 6:59am PDT

We're introducing the companies recognized at the Sacramento Region Innovation Awards, presented by the Sacramento Business Journal. This is the Innovation of the Year.

LiCAP Technologies Inc. is producing battery technology in Sacramento that uses less power and avoids the use of toxic materials compared with the current standard wet-coating process to make electrodes for lithium-ion batteries.



COURTESY LICAP
LiCAP Technologies Inc. is
Innovation of the Year in the
Sacramento Region Innovation
Awards.

It's a big deal, because the world is moving toward the use of a lot more batteries as more transportation is transitioning to electricity as fuel and as more electricity is generated by wind and solar, which need to be stored in times of plenty for use when it's dark and still.

Some of LiCAP's manufacturing advantages come from lower energy consumption in the manufacture of battery components,

giving batteries that use its technology a much lower carbon footprint. LICAP's process also allows for manufacturing on a much smaller scale for similar results. And much of its manufactured materials can be seeily recycled.

Electrodes are vital components of batteries. They make contact with nonmetallic parts of the battery circuit.

The benefits of LiCAP's manufacturing process are many. The manufacture of electrodes using LiCAP's Activated Dry Electrode method uses about 70% less energy than the wet process. It is also faster. The current standard for the manufacture of battery electrodes uses a solvent-based approach, and following the wet application, the solvents must be evaporated and the solvents recovered, which takes energy and time.

LiCAP's process takes minutes rather than hours, uses far less energy and avoids the use of the solvents that are dangerous to workers and potentially explosive.

LiCAP was founded in Sacramento in 2016, and it now has more than 40 employees here and 150 worldwide.

The company has produced supercapacitors that are deployed in wind turbines globally to replace lead acid batteries. Since 2019, LiCAP has developed a manufacturing line in Sacramento to produce lithium-battery electrodes using its proprietary Activated Dry Electrode method.

Even in manufacturing, LiCAP has benefits. The electrodes that don't pass testing, along with the trimmings from manufacturing, can be recycled. The new dry electrodes can be produced with recycled materials, and up to 50% of dry electrode scrap.

The company's electrode manufacturing process produces products for lithium-ion batteries and for solid-state batteries.

The Essentials

Top executive: Linda Zhong, founder and president

Location: Sacramento

Employees: 150; 40 locally

Revenue: \$9.9 million in 2021

Mark Anderson Staff Writer Sacramento Business Journal

