
Successful production of battery-grade lithium hydroxide

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Now, Vulcan's team of experts has successfully produced the first battery-grade lithium hydroxide monohydrate (LHM). The sample impresses with 56.5% LiOH.H₂O and a minimum of impurities. The LHM produced in the pilot plant thus not only exceeds conventional LHM products used in the battery industry, but also the highest requirements of customers in the market.

Vulcan Energie has developed a process that enables lithium to be filtered from the thermal water of the Upper Rhine Graben. The use of renewable heat makes the entire process climate-neutral and the process CO₂-free. With the quality established, the Upper Rhine can establish itself as a center for the industrial production of CO₂-free lithium, strengthening the independence of the European battery industry and regional value creation.

"The results confirm that our process works. The latest findings and sample results are outstanding. I am very proud of our team for reaching this milestone. This is also compelling and important news with regard to the approaching UN Climate Change Conference COP26. A sustainable and climate-friendly raw material supply for the battery industry in Europe is not utopia."

- Horst Kreuter, Managing Director

The pilot plant where the team around the Zero Carbon LithiumTM project is active has been running at full speed since April. The latest results are being incorporated into a feasibility study that is currently being prepared. Commercialization of the plant will be able to be met as planned if further positive samples are obtained. With completion of the demonstration plant in the fall of 2023, the company's Zero Carbon LithiumTM project could be the world's first resource project with net zero greenhouse gas emissions in 2024.