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Unlocking Tomorrow's Energy: Utilizing lithium reserves from disregarded partners - oil and gas deposits

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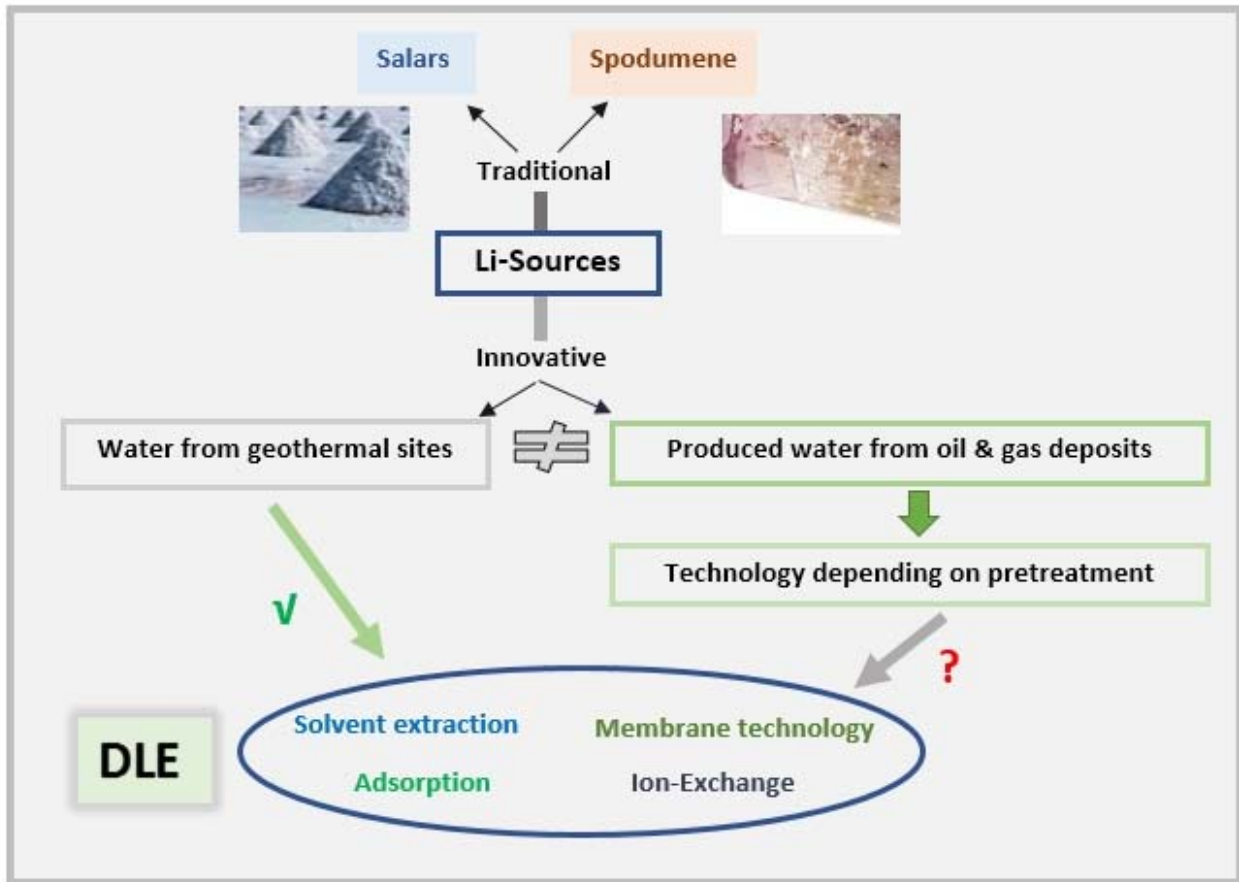
The pursuit of sustainable energy propels exploration into unconventional lithium sources essential for devices and electric vehicles (1). Concerns over traditional extraction methods have sparked innovative, eco-friendly techniques like Direct Lithium Extraction (DLE), while recent German studies expand extraction approaches to geothermal waters (2). In fact, the lithium content in Unexpectedly, lithium exists in produced water of oil and gas deposits proves to be relevant for utilization, linking traditional energy to sustainability (3, 4).

Compared to the various systems available for extraction from geothermal sources (2), the use of alternative sources poses challenges with regard to the composition of the process streams. Here, the hydrocarbon content, the TOC and the COD play a decisive role in the transferability of existing technologies.

Our research targets optimizing lithium extraction from produced water in of oil and gas deposits.

The challenge involves integrating various extraction methods to create a more cost-effective approach for superior results. This overview emphasizes lithium's significance in battery technology and investigates untapped sources for sustainable energy. Efforts focus on combining DLE methods for extracting lithium from these deposits, promising significant advancements despite challenges, reshaping extraction for a greener future.

As part of a joint project with the DGMK and leading companies in the mineral oil industry, a hybrid treatment process is to be developed for the parameter-specific selection of suitable treatment techniques for DLE.



Lithium availability and considered extraction methods

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- [2]
- [3]
- [4]

References:

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