

## Assessing Lithium Recovery from Secondary Sources

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**Abstract :** Climate change and environmental degradation are threats to humanity. Europe has been addressing these problems, namely through the Green Deal, with the use of batteries in mobility and energy fields. However, these require the use of critical raw materials, like lithium, which demand is estimated to grow 60 times in the next 30 years. Thus, it is fundamental to promote a circular economy with lithium recovery from secondary resources. These are nowadays key topics, which will be even more relevant in the future, so a new way to approach them is needed and must be encouraged. Therefore, one of our main goals is to analyse two methods of lithium retrieval from secondary sources, bioleaching, and electro dialysis, and assess them regarding their sustainability. The latest results show good efficiency of removal with both methods, even though there are some matrix interferences. Hence, further investment and research are needed in order to make this process sustainable and our society more circular.

**Keywords :** lithium, sustainable mining, social license to operate, bioleaching, electro dialysis

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