# Article information:

Recent advances in the separation and purification of lactic acid from fermentation broth - ScienceDirect  
<https://www.sciencedirect.com/science/article/abs/pii/S1359511321000921?via%3Dihub>

# Article summary:

1. This article reviews the recent advances in the separation and purification of lactic acid from fermentation broth, including phase transition, membrane separation and esterification.

2. The principles, advantages, limitations, and future prospects of these technologies are discussed.

3. Integration process of multiple technologies and coupling process of separation and fermentation will be the future research direction.

# Article rating:

Appears well balanced: The article presents the information in a reliable and balanced way, without biases and prejudices. The claims made in the article are well supported and, where applicable, all sides of the argument are given opportunity to present their point of view. The article appears trustworthy and reliable.

# Article analysis:

The article is generally reliable and trustworthy as it provides a comprehensive overview of the current advances in the separation and purification of lactic acid from fermentation broth. It presents a balanced view on the different technologies available for this purpose, discussing their principles, advantages, limitations, and future prospects. The article also highlights potential areas for further research such as integration process of multiple technologies and coupling process of separation and fermentation.

The article does not appear to have any biases or one-sided reporting as it provides an objective overview of the different technologies available for lactic acid production from fermentation broth. Furthermore, all claims made in the article are supported by evidence from previous studies which are referenced throughout the text. There do not appear to be any missing points of consideration or unexplored counterarguments in this article either.

The content is also free from promotional content or partiality as it does not promote any particular technology over another but rather provides an unbiased overview of all available options for lactic acid production from fermentation broth. Additionally, possible risks associated with each technology are noted where applicable so that readers can make informed decisions about which technology to use for their own purposes. Finally, both sides of each argument are presented equally throughout the text so that readers can form their own opinions on each topic discussed in the article.

# Topics for further research:

* Lactic acid fermentation process optimization
* Lactic acid recovery techniques
* Membrane separation of lactic acid
* Adsorption of lactic acid from fermentation broth
* Crystallization of lactic acid from fermentation broth
* Coupling of fermentation and separation processes for lactic acid production

# Report location:

<https://www.fullpicture.app/item/4d28d0515ed33a00bcab88003cbc3cf3>