# Article information:

Oxidative pretreatment of lignocellulosic biomass for enzymatic hydrolysis: Progress and challenges - ScienceDirect
[http://cwres.ncu.edu.cn/s/com/sciencedirect/www/G.https/science/article/pii/S0960852422015413?via%3Dihub;x-chain-id=87khl3z0phc0](http://cwres.ncu.edu.cn/s/com/sciencedirect/www/G.https/science/article/pii/S0960852422015413?via%3Dihub&;x-chain-id=87khl3z0phc0)

# Article summary:

1. Oxidative pretreatment of lignocellulosic biomass is an effective way to increase the enzymatic digestibility of cellulose.

2. Wet oxidation, alkaline hydrogen peroxide, organic peracids, Fenton oxidation, and ozone oxidation are some conventional oxidative pretreatments that have been developed.

3. The cost of oxidants used in oxidative delignification is still too expensive for large-scale application, so efforts should be made to reduce the cost or explore valuable products to obtain more revenue.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article “Oxidative Pretreatment of Lignocellulosic Biomass for Enzymatic Hydrolysis: Progress and Challenges” provides a comprehensive overview of the current research progress on oxidative pretreatment of lignocellulosic biomass for enzymatic hydrolysis. The article covers various topics such as affecting factors, substrate structure and cellulose hydrolyzability, fate of hemicelluloses and lignin, challenges and perspectives for practical application.

The article is generally reliable and trustworthy as it provides detailed information on the different types of oxidative pretreatments available and their effects on lignocellulosic biomass. It also presents a balanced view by discussing both the advantages and challenges associated with each type of pretreatment method. Furthermore, the article cites relevant sources to support its claims which adds to its credibility.

However, there are some potential biases in the article that should be noted. For example, while the article does discuss some potential risks associated with certain types of pretreatments (e.g., formation of toxic inhibitors), it does not provide any evidence or data to back up these claims which could weaken its overall reliability. Additionally, while the article does mention some possible solutions to reduce costs (e.g., exploring valuable products), it does not provide any concrete examples or further details which could limit its usefulness in practice.

In conclusion, this article provides a comprehensive overview of oxidative pretreatment methods for lignocellulosic biomass but there are some potential biases that should be taken into consideration when assessing its trustworthiness and reliability.

# Topics for further research:

* Oxidative pretreatment of lignocellulosic biomass cost reduction
* Valuable products from lignocellulosic biomass pretreatment
* Toxic inhibitors from lignocellulosic biomass pretreatment
* Enzymatic hydrolysis of lignocellulosic biomass
* Lignin degradation during lignocellulosic biomass pretreatment
* Practical applications of lignocellulosic biomass pretreatment

# Report location:

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