# Article information:

Application of Numerical Simulation on Biomass Gasification - ScienceDirect  
<https://www.sciencedirect.com/science/article/pii/S1876610212003979?via%3Dihub=>

# Article summary:

1. Biomass gasification is a highly efficient chemical conversion process that can be studied using numerical simulation.

2. Two commercial simulation softwares, Aspen Plus and Fluent, are commonly used in chemical processes and have been applied to biomass gasification.

3. A combination of Aspen Plus and Fluent can achieve better simulation results for biomass gasification.

# Article rating:

Appears moderately imbalanced: The article provides some useful information, but is missing several important points or pieces of evidence that would be required to present the discussed topics in a balanced and reliable way. You are encouraged to seek a more balanced perspective on the presented issues by exploring the provided research topics and looking at different information sources.

# Article analysis:

The article titled "Application of Numerical Simulation on Biomass Gasification" provides a review of the use of numerical simulation in biomass gasification technology. The article highlights the importance of numerical simulation as a tool for studying biomass gasification and reviews the current state of research in this area.

One potential bias in the article is that it focuses primarily on two commercial simulation software programs, Aspen Plus and Fluent, without considering other available options. This may limit the scope of the analysis and overlook potentially valuable insights from other software programs.

Additionally, while the article provides a comprehensive review of previous research on biomass gasification, it does not explore potential counterarguments or alternative perspectives. This one-sided reporting may limit readers' understanding of the complexity and nuances involved in this field.

Furthermore, while the article suggests that combining Aspen Plus with Fluent can lead to better simulation results for biomass gasification, it does not provide sufficient evidence to support this claim. The lack of empirical data or experimental results may weaken the credibility of this assertion.

Another limitation is that the article does not adequately address potential risks associated with biomass gasification technology. While it acknowledges that biomass gasification is a high thermal efficiency chemical conversion process, it does not discuss any potential environmental or health hazards associated with this technology.

Overall, while the article provides a useful overview of numerical simulation in biomass gasification technology, its limited scope and lack of empirical evidence may limit its usefulness for researchers and practitioners in this field.

# Topics for further research:

* Environmental risks of biomass gasification technology
* Alternative simulation software for biomass gasification
* Health hazards associated with biomass gasification
* Experimental results on combining Aspen Plus and Fluent for biomass gasification simulation
* Economic feasibility of biomass gasification technology
* Social impacts of biomass gasification technology on local communities

# Report location:

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