# Article information:

Fischer Tropsch water composition study from distillation process in gas to liquid technology with ASPEN simulation - ScienceDirect  
<https://www.sciencedirect.com/science/article/pii/S2666016421000281>

# Article summary:

1. Gas to liquid technology uses natural gas as a raw material and involves the Fischer Tropsch synthesis reaction to produce hydrocarbon chain products.

2. Wastewater produced by Fischer Tropsch reaction needs to be treated through distillation to remove volatile polluting compounds, and simulation is utilized to investigate the change in chemical oxygen demand due to the presence of VOC in the stripped water.

3. Aspen simulation software is used to evaluate the effect of reaction on hydrocarbon and water yield during Fischer Tropsch reaction, and a simulation study could estimate the Fischer Tropsch water composition after distillation by defining its chemical oxygen demand (COD).

# 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 "Fischer Tropsch water composition study from distillation process in gas to liquid technology with ASPEN simulation" provides an overview of the distillation process used in gas to liquid technology. The article discusses the use of natural gas as a raw material and its conversion into synthesis gas through the reaction between oxygen and steam. The Fischer Tropsch synthesis is then used to produce long hydrocarbon chains such as linear paraffin and linear olefins.

The article highlights the need for wastewater treatment through distillation to remove volatile organic compounds (VOCs) that contribute significantly to the chemical oxygen demand (COD) of wastewater. The article also discusses the use of Aspen simulation software to evaluate the effect of reaction on hydrocarbon and water yield during Fischer Tropsch reaction.

While the article provides useful information on the distillation process, it has several limitations. Firstly, it does not provide a comprehensive analysis of potential biases or sources of bias in the study. Secondly, it does not explore counterarguments or present both sides equally, which limits its credibility.

Additionally, some claims made in the article are unsupported by evidence or missing points of consideration. For example, while the article mentions that VOCs contribute significantly to COD, it does not provide evidence for this claim or discuss other factors that may contribute to COD.

Furthermore, there is promotional content in the article as it promotes Aspen simulation software without discussing any limitations or potential risks associated with its use.

In conclusion, while the article provides useful information on wastewater treatment through distillation in gas to liquid technology, it has several limitations that limit its credibility. Further research is needed to provide a more comprehensive analysis of potential biases and sources of bias in this area.

# Topics for further research:

* Factors contributing to chemical oxygen demand in wastewater treatment
* Limitations and potential risks associated with Aspen simulation software
* Alternative methods for wastewater treatment in gas to liquid technology
* Environmental impacts of gas to liquid technology
* Comparison of Fischer Tropsch synthesis with other hydrocarbon synthesis methods
* Economic feasibility of gas to liquid technology in different regions and markets

# Report location:

<https://www.fullpicture.app/item/a1f2709af328eba5a6070e9b2f2f4e01>