# Article information:

Biomass-based pyrolytic polygeneration system on cotton stalk pyrolysis: Influence of temperature | Elsevier Enhanced Reader
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# Article summary:

1. This article focuses on the characteristics of the products and the mechanism of pyrolysis of cotton stalk across a wide range of temperatures, from 250 to 950 °C.

2. Cotton stalk samples were obtained from WuHan in Hubei province, China, and contained 51.40% of C, 4.00% of H, 43.24% of O, 1.33% of N, and 0.03% of S on a dry ash free basis (daf).

3. Pyrolysis experiments were conducted in a fixed-bed reactor using preheated nitrogen (99.99%, 1 L/min) to provide a reductive atmosphere in the reactor.

# 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:

This article provides an overview of the influence of temperature on biomass-based pyrolytic polygeneration systems using cotton stalk pyrolysis as an example. The article is well written and provides detailed information about the sample preparation process and experimental setup used for conducting the pyrolysis experiments. The analysis methods used for analyzing gas and liquid oil are also clearly described in detail which adds to its trustworthiness and reliability. However, there are some potential biases that should be noted when considering this article’s trustworthiness and reliability such as one-sided reporting, unsupported claims, missing points of consideration, missing evidence for the claims made, unexplored counterarguments, promotional content, partiality etc. For instance, while it is mentioned that “the optimum quality of the three products obtained from biomass-based polygeneration is critical” no further details or evidence is provided to support this claim or explore any possible counterarguments or risks associated with this statement which could potentially affect its trustworthiness and reliability. Additionally, while it is mentioned that “each test experiment was carried out three times” no further details are provided regarding how these tests were conducted or what results were obtained which could potentially affect its trustworthiness and reliability as well as its overall credibility as an academic source.

# Topics for further research:

* Biomass-based polygeneration system reliability
* Cotton stalk pyrolysis temperature effects
* Gas and liquid oil analysis methods
* Biomass-based polygeneration system risks
* Sample preparation process for pyrolysis experiments
* Experimental setup for pyrolysis experiments

# Report location:

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