# Article information:

Superior bifunctional cobalt/nitrogen-codoped carbon nanosheet arrays on copper foam enable stable energy-saving hydrogen production accompanied with glucose upgrading - Green Chemistry (RSC Publishing)  
<https://pubs.rsc.org/en/content/articlelanding/2022/gc/d2gc02426h>

# Article summary:

1. This article presents a novel bifunctional cobalt/nitrogen-codoped carbon nanosheet array on copper foam that can be used to drive an energy-saving hydrogen production system with glucose-assisted Cu(I)/Cu(II) redox-looping.

2. The CoNC nanosheet arrays are size-controllable and can act as a highly active electrocatalyst of the HER with outstanding electrochemical activity.

3. The optimized CoNC arrays can protect the copper sites of CF from leaching in the glucose-assisted Cu(I)/Cu(II) redox-looping, thus significantly improving the stability of this self-supported electrode and enabling an ultra-low input cell voltage of 0.9 V to achieve 100 mA cm−2 with an ultra-low electricity consumption of 1.97 kW h per cubic meter of H2.

# 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 is written in a clear and concise manner, making it easy to understand for readers who are not experts in the field. The authors provide detailed information about their research methodology and results, which makes it possible to evaluate the trustworthiness and reliability of their claims. Furthermore, they cite relevant literature throughout the article, which adds credibility to their findings and conclusions.

However, there are some potential biases that should be noted when evaluating this article. For example, the authors do not discuss any potential risks associated with their proposed method or explore any counterarguments that could challenge their findings or conclusions. Additionally, they do not present both sides equally; instead, they focus solely on promoting their own research without considering alternative approaches or solutions that could be more effective or efficient than theirs. Finally, there is no evidence provided for some of the claims made in the article; therefore, readers should take these claims with a grain of salt until further evidence is presented to support them.

# Topics for further research:

* Alternative approaches to research methodology
* Potential risks associated with proposed methods
* Counterarguments to research findings
* Evidence-based research methods
* Evaluating trustworthiness of research claims
* Comparing efficiency of different solutions

# Report location:

<https://www.fullpicture.app/item/a95b6ffafba402e03af17c851b13220f>