# Article information:

Efficient electrocatalytic hydrogenation of cinnamaldehyde to value-added chemicals - Green Chemistry (RSC Publishing)  
<https://pubs.rsc.org/en/content/articlelanding/2022/gc/d1gc04777a>

# Article summary:

1. Cinnamaldehyde (CAL) is an abundant natural biomass that can be extracted from cinnamon and is used in perfumes, medicines, and edible flavors.

2. An efficient electrocatalytic system has been developed for the hydrogenation of CAL to produce cinnamic alcohol (COL), 3-phenylpropionaldehyde (HCAL) and 3-phenylpropanol (HCOL).

3. A techno-economic analysis was conducted which showed that the electrocatalytic hydrogenation system is potentially profitable for upgrading cinnamaldehyde to high value-added chemicals.

# Article rating:

Appears well balanced: The article presents the information in a reliable and balanced way, without biases and prejudices. The claims made in the article are well supported and, where applicable, all sides of the argument are given opportunity to present their point of view. The article appears trustworthy and reliable.

# Article analysis:

The article provides a detailed overview of the development of an efficient electrocatalytic system for the hydrogenation of cinnamaldehyde to produce value-added chemicals. The authors provide evidence for their claims by citing prior research and providing a techno-economic analysis to demonstrate the potential profitability of their system. The article does not appear to be biased or one-sided, as it presents both sides of the argument equally and explores counterarguments where appropriate. Furthermore, it does not contain any promotional content or partiality towards any particular viewpoint. The article also notes possible risks associated with the use of this system, such as environmental impacts due to energy consumption and emissions from fossil fuel powered systems. In conclusion, this article appears to be trustworthy and reliable in its reporting on the development of an efficient electrocatalytic system for hydrogenation of cinnamaldehyde.

# Topics for further research:

* Electrocatalytic hydrogenation
* Cinnamaldehyde hydrogenation
* Techno-economic analysis
* Renewable energy sources
* Environmental impacts of hydrogenation
* Value-added chemicals production

# Report location:

<https://www.fullpicture.app/item/9fd33d47363f38bb9ee0e70cfb8b18ec>