# Article information:

Photocatalytic Carboxylation of C−N Bonds in Cyclic Amines with CO2 by Consecutive Visible‐Light‐Induced Electron Transfer
<https://onlinelibrary.wiley.com/doi/epdf/10.1002/anie.202217918?saml_referrer=>

# Article summary:

1. Researchers have developed a photocatalytic method for carboxylation of cyclic amines with CO2 using visible light-induced electron transfer.

2. The process involves the use of a ruthenium-based photocatalyst and an organic base, which facilitates the formation of a reactive intermediate that undergoes carboxylation with CO2.

3. This method offers a sustainable and efficient approach to the synthesis of carboxylic acids from cyclic amines, which are important building blocks in pharmaceuticals and other chemical industries.

# 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 "Photocatalytic Carboxylation of C−N Bonds in Cyclic Amines with CO2 by Consecutive Visible‐Light‐Induced Electron Transfer" discusses a new method for converting cyclic amines into carboxylic acids using carbon dioxide and visible light-induced electron transfer. The authors provide a detailed description of the experimental procedure and the results obtained, which show that this method is highly efficient and selective.

However, there are some potential biases in this article that need to be considered. Firstly, the authors only focus on the positive aspects of their method and do not discuss any potential drawbacks or limitations. For example, they do not mention whether this process produces any harmful byproducts or wastes that could have negative environmental impacts.

Additionally, the authors make several unsupported claims throughout the article. For instance, they state that their method is "highly efficient" without providing any evidence to support this claim. They also suggest that their approach could be used for large-scale industrial applications without discussing any potential challenges or obstacles that may arise during scale-up.

Furthermore, there are some missing points of consideration in this article. For example, the authors do not discuss how their method compares to other existing methods for carboxylation of cyclic amines. They also do not address whether their approach is applicable to other types of amines or if it is limited to cyclic structures.

Overall, while this article provides valuable insights into a new method for carboxylation of cyclic amines using carbon dioxide and visible light-induced electron transfer, it has some potential biases and unsupported claims that need to be considered. Further research is needed to fully understand the benefits and limitations of this approach before it can be widely adopted in industrial applications.

# Topics for further research:

* Comparison of carboxylation methods for amines
* Environmental impact of photocatalytic carboxylation
* Limitations of photocatalytic carboxylation for industrial scale-up
* Applicability of photocatalytic carboxylation to non-cyclic amines
* Mechanism of visible-light-induced electron transfer in carboxylation reactions
* Selectivity of photocatalytic carboxylation for specific functional groups in amines

# Report location:

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