

Author Correction

Coupling electrochemical CO $_2$ conversion with CO $_2$ capture (Nature Catalysis, (2021), 4, 11, (952-958), 10.1038/s41929-021-00699-7)

Sullivan, Ian; Goryachev, Andrey; Digdaya, Ibadillah A.; Li, Xueqian; Atwater, Harry A.; Vermaas, David A.; Xiang, Chengxiang

DOI

10.1038/s41929-022-00734-1

Publication date

Document VersionFinal published version

Published in Nature Catalysis

Citation (APA)

Sullivan, I., Goryachev, A., Digdaya, I. A., Li, X., Atwater, H. A., Vermaas, D. A., & Xiang, C. (2022). Author Correction: Coupling electrochemical CO₂ conversion with CO₃ capture (Nature Catalysis, (2021), 4, 11, (952-958), 10.1038/s41929-021-00699-7. *Nature Catalysis*, *5*(1), 75-76. https://doi.org/10.1038/s41929-022-00734-1

Important note

To cite this publication, please use the final published version (if applicable). Please check the document version above.

Copyright

Other than for strictly personal use, it is not permitted to download, forward or distribute the text or part of it, without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license such as Creative Commons.

Takedown policy

Please contact us and provide details if you believe this document breaches copyrights. We will remove access to the work immediately and investigate your claim.

Green Open Access added to TU Delft Institutional Repository 'You share, we take care!' - Taverne project

https://www.openaccess.nl/en/you-share-we-take-care

Otherwise as indicated in the copyright section: the publisher is the copyright holder of this work and the author uses the Dutch legislation to make this work public.



AMENDMENTS

https://doi.org/10.1038/s41929-022-00734-1



Author Correction: Coupling electrochemical CO₂ conversion with CO₂ capture

lan Sullivan, Andrey Goryachev, Ibadillah A. Digdaya, Xueqian Li, Harry A. Atwater, David A. Vermaas, and Chengxiang Xiang

Correction to: Nature Catalysis https://doi.org/10.1038/s41929-021-00699-7, published online 18 November 2021.

In the version of this article, there were errors in Fig. 2a and d. In Fig. 2a, we have changed Cu^{2+} to Cu(0) in the revised version. While the two references cited in our paper used Cu^{2+} in their schematics, ^{1,2} we believe that Cu(0) is the correct representation for the electrochemically mediated amine regeneration (EMAR)³. To be clear, the Cu metal anode is oxidized into cupric ions. The cupric ions then bind to the carbamate and displace the CO_2 and form a copper–amine complex. The copper–amine complex is then reduced at the cathode where Cu metal is plated out.

In Fig. 2d, we have changed the polarity of the cathode and anode in the revised version. A proton is released at the anode, while a hydroxide is released at the cathode. We have also simplified the quinone/hydroquinone chemistry in the revised version to be consistent with proton and hydroxide stoichiometry. The original and revised Fig. 2 images are shown below.

The changes have been made to the html and PDF versions of the article.

References

- Stern, M. C., Simeon, F., Herzog, H. & Hatton, T. A. Post-combustion carbon dioxide capture using electrochemically mediated amine regeneration. Energy Environ. Sci. https://doi.org/10.1039/c3ee41165f (2013).
- Stern, M. C. & Alan Hatton, T. Bench-scale demonstration of CO₂ capture with electrochemically-mediated amine regeneration. RSC Adv. https://doi. org/10.1039/c3ra46774k (2014).
- 3. Wu, X. et al. Electrochemically-mediated amine regeneration of CO₂ capture: From electrochemical mechanism to bench-scale visualization study. *Appl. Energy* https://doi.org/10.1016/j.apenergy.2021.117554 (2021).

AMENDMENTS NATURE CATALYSIS

