



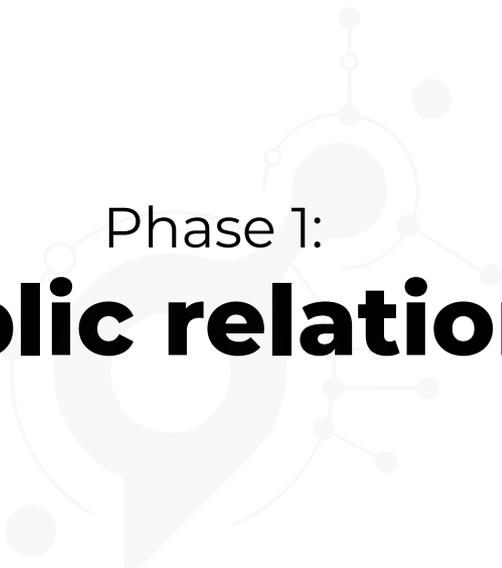
Evaluation of scientific research communication

# Electrocatalysts for the hydrogen evolution reaction in alkaline and neutral media. A comparative review

Client:



**UNIVERSITY OF  
CHEMISTRY AND TECHNOLOGY  
PRAGUE**



Phase 1:

# **Public relations**

## Science Communication

# Summary

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Journalists reached	<b>285</b>
Google News published	<b>1x</b>
Reddit reach	<b>20 mio+</b>
Wikipedia articles	<b>1</b>
Social media reach	<b>6k+</b>
Altmetric score	<b>+4000%</b>



We analyzed the research results, found the best formulation for the press release, and sent it to carefully selected media outlets from all over the world.

We communicated results to

**285**

**selected journalists, senior editors, reporters and external contributors interested in the chemistry and environment.**

Our database consist of over 10 000 contacts from various scientific fields. We always choose the right ones and send our emails one by one with a special anti-throttling algorithm that help us avoid ending in a spam folder.

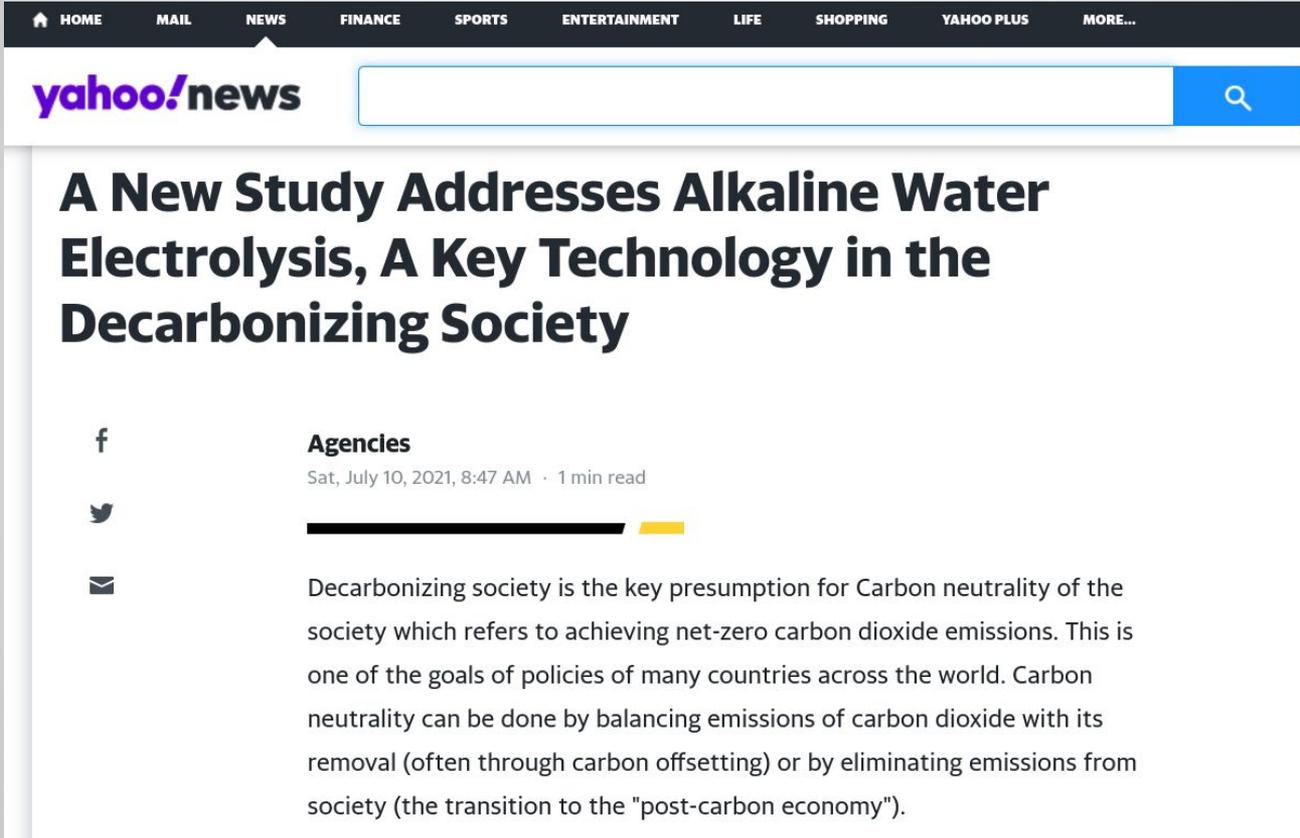
The screenshot shows the Google News interface. At the top, the search bar contains the text "A New Study Addresses Alkaline Water Electrolysis, A Key Technology in the Decarbonizing Society". The left sidebar lists various categories: Top stories, For you, Following, Saved searches, COVID-19, U.S., World, Your local news, Business, Technology, Entertainment, Sports, and Science. The main content area displays four news items:

- A New Study Addresses Alkaline Water Electrolysis, A Key Technology in the Decarbonizing Society** by LatestLY, 4 days ago. Includes a portrait of a man.
- Hyundai Motor and Kia Collaborate with Next Hydrogen to Develop Advanced Alkaline Water Electrolysis System** by GlobeNewswire, 6 days ago. Includes a photo of a man holding a document.
- GM to invest \$71 million for new design and tech campus in California** by ETAuto.com, Yesterday. Includes a photo of a General Motors building.
- Opinion: The next big thing of the century - Hydrogen** by ETAuto.com, 2 days ago. Includes a photo of a hydrogen fuel cell vehicle.

On the right side, there is a search results panel with a magnifying glass icon, the same search query, and a "Save" button.

This press release was published on [Google News index USA website](#) and in [Yahoo News](#).





The image shows a screenshot of a Yahoo News article. At the top, there is a navigation bar with links for HOME, MAIL, NEWS, FINANCE, SPORTS, ENTERTAINMENT, LIFE, SHOPPING, YAHOO PLUS, and MORE... Below this is the Yahoo News logo and a search bar. The main headline is "A New Study Addresses Alkaline Water Electrolysis, A Key Technology in the Decarbonizing Society". To the left of the article text are social media sharing icons for Facebook, Twitter, and Email. The article text begins with "Decarbonizing society is the key presumption for Carbon neutrality of the society which refers to achieving net-zero carbon dioxide emissions. This is one of the goals of policies of many countries across the world. Carbon neutrality can be done by balancing emissions of carbon dioxide with its removal (often through carbon offsetting) or by eliminating emissions from society (the transition to the "post-carbon economy")."

HOME MAIL NEWS FINANCE SPORTS ENTERTAINMENT LIFE SHOPPING YAHOO PLUS MORE...

**yahoo!news**

# A New Study Addresses Alkaline Water Electrolysis, A Key Technology in the Decarbonizing Society

**f** **Agencies**  
Sat, July 10, 2021, 8:47 AM · 1 min read

**t**

**e**

Decarbonizing society is the key presumption for Carbon neutrality of the society which refers to achieving net-zero carbon dioxide emissions. This is one of the goals of policies of many countries across the world. Carbon neutrality can be done by balancing emissions of carbon dioxide with its removal (often through carbon offsetting) or by eliminating emissions from society (the transition to the "post-carbon economy").



Phase 2:

**Wikipedia**

# Why Wikipedia?

**[This MIT study](#) has proven that scientific articles on Wikipedia eventually receive more academic citations.**

Wikipedia attracts 1.5 billion unique visitors per month, and is also used by students, scientists and journalists. If your research is mentioned on Wikipedia, it soon becomes common knowledge.





WIKIPEDIA  
The Free Encyclopedia

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# Alkaline water electrolysis

From Wikipedia, the free encyclopedia

**Alkaline water electrolysis** has a long history in the chemical industry. It is a type of [electrolyzer](#) that is characterized by having two [electrodes](#) operating in a liquid alkaline electrolyte solution of [potassium hydroxide](#) (KOH) or [sodium hydroxide](#) (NaOH). These electrodes are separated by a diaphragm, separating the product gases and transporting the hydroxide ions (OH<sup>-</sup>) from one electrode to the other.<sup>[1][3]</sup> A recent comparison showed that state-of-the-art nickel based water electrolyzers with alkaline electrolytes lead to competitive or even better efficiencies than acidic [polymer electrolyte membrane water electrolysis](#)<sup>[citation needed]</sup> with platinum group metal based electrocatalysts.<sup>[4]</sup>

Electrolysis requires minerals to be present in solution. Tap, well, and ground water contains various minerals, some of which are alkaline while others are acidic. Water above a pH of 7.0 is considered alkaline; below 7.0 it is acidic. The requirement is that there must be ions in the water to conduct electricity for the [water electrolysis](#) process to occur.<sup>[5][6]</sup>

In the context of [decarbonisation of industry](#) alkaline water electrolysis can be regarded as an important technology enabling efficient energy conversion and storage.<sup>[7]</sup>

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## References [\[ edit \]](#)

7. ^ "Electrocatalysts for the hydrogen evolution reaction in alkaline and neutral media. A comparative review" [↗](#). *Journal of Power Sources*. **493**: 229708. 2021-05-01. doi:10.1016/j.jpowsour.2021.229708 [↗](#). ISSN 0378-7753 [↗](#).

**Backlink to published article**



Phase 3:

**Reddit**



# Why Reddit?

**During September 2019 alone, the r/science community “averaged 5.6 million unique users and 29 million page views.”**

Which happens to be a larger circulation than all the top ten US newspapers' weekday circulation (including *USA Today*, *The New York Times*, and the *Wall Street Journal*).



TL - NEW REDDIT JOURNAL of SCIENCE

r/science Joined

26,463,862 members • 7,368 online

This community is a place to share and discuss new scientific research. Read about the latest advances in astronomy, biology, medicine, physics, social science, and ...

Science Learning

Posts About Menu

NEW POSTS

u/mightx • Now

A new study addresses alkaline water electrolysis, a key technology in the decarbonizing society

Chemistry

r/chemistry · Posted by u/mightx 12 minutes ago

A new study addresses alkaline water electrolysis, a key technology in the decarbonizing society. Decarbonizing society is the key presumption for Carbon neutrality of the society which refers to achieving net-zero carbon dioxide emissions. This is one of the goals of policies of many countries across...

sciencedirect.com/scienc...

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100% Upvoted

u/FinMasters · PROMOTED

r/chemistry

A community for chemists and those who love chemistry

1.4m Members 773 Online

Created Mar 13, 2008

Joined

We shared a direct link to the published paper on the communities of r / science r/chemistry, r/climate and several others we found appropriate. We understand Reddit's guidelines well with over five years of experience, so our posts got published to relevant communities, outreaching over **20m members**.



**r/climate** + Join

91,189 members · 131 online

A community for truthful science-based news about climate and related politics and activism

**Posts** About

NEW POSTS

u/mightx · Now

**Decarbonizing society is the key presumption for Carbon neutrality of the society which refers to achieving net-zero carbon dioxide emissions. A new study addresses alkaline water electrolysis, a key technology in the decarbonizing society.**

sciencedirect.com

**r/science** · Posted by u/mightx 6 hours ago

**13** A new study addresses alkaline water electrolysis, a key technology in the decarbonizing society

[sciencedirect.com/scienc...](https://sciencedirect.com/scienc...)

Chemistry

↑  
Reddit communities **engaged** with our posts

**RandomBitFry** · 2h · edited 2h

We all put Potassium Hydroxide in our HHO generators already. It's still a horrendous waste of electrical power regardless.

↑ 1 ↓ Reply Give Award Share Report Save





Phase 4:

**Facebook**



**About** [See All](#)

I specialize in assisting non-English speaking authors of environmental research material to prepare and polish their submissions for publication.

1,181 people like this

1,177 people follow this

<http://www.skyeenviroediting.com/>

+1 250-283-2483

**Very responsive** to messages  
[Send Message](#)

**Local Business**

**Skye EnviroEditing**  
23h ·

For the environmentalists reading my posts:

**SCIEDIRECT.COM**  
**Electrocatalysts for the hydrogen evolution reaction in alkaline and neutra...**  
With interest in renewable energy sources and in the decarbonisation of industry rapidly accelerating, alkaline water electrolysis can now...

Facebook fanpage “[Sky EnviroEditing](#)” focused on environmental research posted about research with direct link to research article.



Phase 5:

**Twitter**



The research results were tweeted to an audience of over

**6.000**

**Twitter users**  
**(and was retweeted more than 30x)**



# Some of the tweets:



**Weiran Zheng**

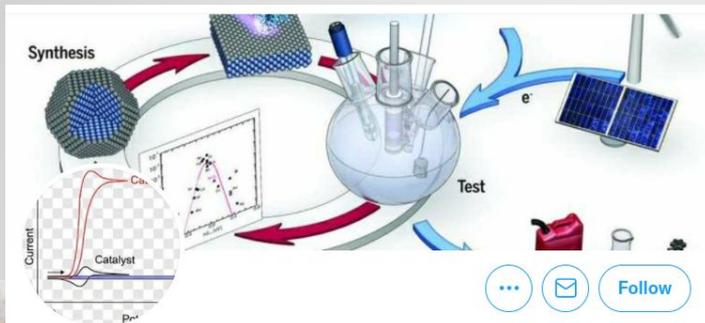
@wrzhengec

Research Fellow at HKPolyU, working on in-situ electrochemistry coupled technique, or anything rational~

Hong Kong [weiranec.github.io](https://github.com/weiranec) Joined August 2013

301 Following 146 Followers

Not followed by anyone you're following



**Electrocatalysts**

@Electrocatorwork Follows you

Recent Updates of Theory and Experimental Research Papers of Electro: Job & News.

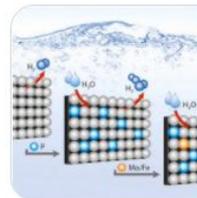
Joined May 2020

1,045 Following 501 Followers



**Thomas Brown** @Thomaschemist · Jul 15

Research has shown alkaline water electrolysis can now be regarded as a key technology enabling efficient energy conversion and storage. #alkaline #electrolysis Could be interested for @Hyundai\_Global and @marcuswebster



Electrocatalysts for the hydrogen evolution reactio...  
With interest in renewable energy sources and in the decarbonisation of industry rapidly accelerating, ...  
[sciedirect.com](https://www.sciencedirect.com)



Science Communication

# Summary

Client:



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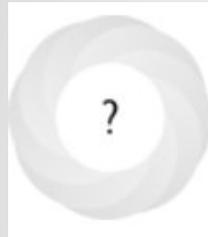
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In the top 5% of all research  
outputs scored by Altmetric



**Our activities significantly increased the Altmetric score of the communicated research (citation social impact metrics) - from ? to 40. We succeeded in putting research in the top 5% of all research outputs scored by Altmetric.**



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