# Article information:

MOF-818 nanozyme-based colorimetric and electrochemical dual-mode smartphone sensing platform for in situ detection of H2O2 and H2S released from living cells-所有数据库
[https://www.webofscience.com/wos/alldb/full-record/WOS:000855059500002](https://www.webofscience.com/wos/alldb/full-record/WOS%3A000855059500002)

# Article summary:

1. This article presents a portable colorimetric and electrochemical dual-mode sensor for the detection of hydrogen peroxide (H2O2) and hydrogen sulfide (H2S) released from living cells.

2. The sensor is based on MOF-818 nanozyme, which has excellent peroxidase-like activity under 37°C and acidic conditions, as well as outstanding electrocatalytic reduction activity to H2O2.

3. This dual-mode sensing platform has potential applications in the field of cell biology and clinical diagnosis.

# 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:

This article presents a novel portable colorimetric and electrochemical dual-mode sensor for the detection of hydrogen peroxide (H2O2) and hydrogen sulfide (H2S) released from living cells. The sensor is based on MOF-818 nanozyme, which has excellent peroxidase-like activity under 37°C and acidic conditions, as well as outstanding electrocatalytic reduction activity to H2O2. This dual-mode sensing platform has potential applications in the field of cell biology and clinical diagnosis.

The article is generally reliable in its presentation of the research findings, with sufficient evidence provided to support its claims. The authors have provided detailed descriptions of their methodology, results, and conclusions, making it easy to follow their reasoning process. Furthermore, they have cited relevant literature to back up their claims, demonstrating that they are aware of existing research in this area.

However, there are some areas where the article could be improved upon. For example, while the authors have discussed potential applications for their research findings in cell biology and clinical diagnosis, they do not provide any details about how these applications might be implemented or what benefits they might bring about. Additionally, while the authors have discussed possible risks associated with using this technology in medical settings such as false positives or false negatives due to interference from other substances present in biological samples, they do not discuss any ethical considerations that should be taken into account when using this technology on human subjects or animals. Finally, while the authors have discussed potential improvements that could be made to their device such as increasing sensitivity or reducing cost through miniaturization or mass production techniques, they do not provide any concrete plans for how these improvements might be achieved or what impact they would have on overall performance or cost effectiveness of the device.

In conclusion, this article provides a reliable overview of a novel portable color

# Topics for further research:

* Ethical considerations for medical sensing technology
* Miniaturization techniques for sensors
* Mass production of sensors
* False positives and false negatives in medical sensing
* Improving sensitivity of sensors
* Cost effectiveness of medical sensing technology

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