# Article information:

Efficient activation of PAA by FeS for fast removal of pharmaceuticals: The dual role of sulfur species in regulating the reactive oxidized species - ScienceDirect  
<https://www.sciencedirect.com/science/article/pii/S004313542200358X>

# Article summary:

1. FeS/PAA system was used to efficiently remove three pharmaceuticals from wastewater over a wide pH range.

2. S(-II) and H2S (aq) played a significant role in Fe(II) regeneration, while ·OH was the key reactive species in the FeS/PAA system.

3. After treatment with the FeS/PAA system, the products obtained from the three pharmaceuticals were detoxified and even facilitated the growth of E. coli.

# 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 “Efficient activation of PAA by FeS for fast removal of pharmaceuticals: The dual role of sulfur species in regulating the reactive oxidized species” is an informative and well-written piece that provides an overview of how peracetic acid (PAA) can be activated by low-cost and environmentally friendly catalysts such as FeS for efficient oxidative removal of three pharmaceuticals over a wide pH range. The article is written in a clear and concise manner, making it easy to understand for readers who are not familiar with this topic. The authors provide evidence to support their claims, such as citing previous studies on similar topics and providing detailed explanations on how sulfur species play a role in regulating reactive oxidized species.

The article does not appear to have any biases or one-sided reporting, as it presents both sides equally and objectively. It also does not contain any unsupported claims or missing points of consideration; instead, it provides detailed explanations on how PAA can be activated by low-cost catalysts for efficient removal of pollutants from wastewater. Furthermore, there is no promotional content or partiality present in the article; instead, it focuses solely on providing information about how PAA can be activated by low-cost catalysts for efficient removal of pollutants from wastewater without promoting any particular product or brand. Additionally, possible risks associated with using PAA are noted throughout the article, such as its limited ability to directly oxidize refractory pollutants like 4-chlorophenol and its potential formation of harmful byproducts during disinfection processes.

In conclusion, this article is reliable and trustworthy due to its objective presentation of both sides equally without any biases or one-sided reporting, lack of unsupported claims or missing points of consideration, absence of promotional content or partiality, and noting possible risks associated with using PAA for disinfection processes.

# Topics for further research:

* Peracetic acid activation
* Low-cost catalysts for wastewater treatment
* Oxidative removal of pharmaceuticals
* Reactive oxidized species regulation
* Disinfection byproducts of PAA
* 4-chlorophenol oxidation by PAA

# Report location:

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