# Article information:

Nitrogen-doped carbon nanotube/cobaltosic oxide composite material and preparation method thereof (2019) | Li Liang | 3 Citations
<https://typeset.io/papers/nitrogen-doped-carbon-nanotube-cobaltosic-oxide-composite-o6l5cqsowq>

# Article summary:

1. 本文介绍了一种氮掺杂碳纳米管/钴酸锶复合气凝胶材料，适用于超级电容器等领域。

2. 该复合材料通过利用聚吡咯气凝胶制备氮掺杂碳纳米管气凝胶，再与ZIF-67复合形成氮掺杂碳纳米管/ZIF-67复合气凝胶，并最终通过烧结完成。

3. 该复合材料能够有效地保持三维多孔结构，同时实现氮掺杂碳纳米管的电双层电容和钴酸锶的伪电容的相互组合，适用于超级电容器等领域。

# 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 presents a nitrogen-doped carbon nanotube/cobaltosic oxide composite aerogel that is suitable for supercapacitors. The preparation method involves using polypyrrole aerogel as a precursor of the nitrogen-doped carbon nanotube and compositing it with ZIF-67 to form the composite aerogel. The article claims that the obtained composite material can effectively keep a three-dimensional porous structure of aerogel, disperse cobaltosic oxide nanoparticles, and achieve mutual combination of an electric double-layer capacitor of the nitrogen-doped carbon nanotube and a pseudo capacitor of cobaltosic oxide.

However, the article lacks critical analysis and evidence to support its claims. It does not explore potential risks or limitations of the composite material, such as toxicity or environmental impact. The article also does not provide a balanced presentation by considering alternative materials or methods for supercapacitors.

Furthermore, the article may have biases or conflicts of interest since it was authored by Li Liang, who may have financial or professional interests in promoting this specific composite material. The article also lacks citations from independent sources to support its claims.

Overall, while the nitrogen-doped carbon nanotube/cobaltosic oxide composite aerogel may have potential applications in supercapacitors, more research and critical analysis are needed to fully evaluate its effectiveness and safety compared to other materials.

# Topics for further research:

* Potential risks and limitations of the composite material
* Environmental impact of the composite material
* Alternative materials or methods for supercapacitors
* Biases or conflicts of interest in the article
* Independent sources to support the claims
* Further research and critical analysis needed

# Report location:

<https://www.fullpicture.app/item/0139be4c63a6780e833a755634a5ff78>