# Article information:

Self-template and in-situ synthesis strategy to construct MnO2/Mn3O4@Ni-Co/GC nanocubes for efficient microwave absorption properties - ScienceDirect
<https://www.sciencedirect.com/science/article/abs/pii/S0925838821035611>

# Article summary:

1. The article discusses the development of efficient electromagnetic wave (EMW) absorbing materials with strong adsorption, broad bandwidth, light weight and thin matching thickness.

2. The article focuses on the synthesis of MnO2/Mn3O4@Ni-Co/GC nanocubes as a potential EMW absorbing material, which combines magnetic nanoparticles with other appropriate materials into composites.

3. The MnO2/Mn3O4@Ni-Co/GC nanocubes exhibit excellent EMW absorption performances with a RLmin value of −26 dB at 4.0 mm and the widest effective absorbing bandwidth of 3.7 GHz at a matching thickness of 2.0 mm.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article is generally reliable and trustworthy in its discussion of the development of efficient electromagnetic wave (EMW) absorbing materials with strong adsorption, broad bandwidth, light weight and thin matching thickness. It provides an overview of the current state-of-the-art in this field and presents a novel approach to synthesizing MnO2/Mn3O4@Ni-Co/GC nanocubes as a potential EMW absorbing material that combines magnetic nanoparticles with other appropriate materials into composites. The article also provides evidence for its claims by citing relevant research studies that have been conducted in this area, which adds to its credibility and trustworthiness.

However, there are some points that could be improved upon in terms of trustworthiness and reliability. For example, while the article does provide evidence for its claims by citing relevant research studies, it does not explore any counterarguments or present both sides equally when discussing the potential risks associated with EMW radiation exposure or the use of these materials for EMW absorption purposes. Additionally, there is no mention of any possible risks associated with using these materials or any potential environmental impacts that may arise from their use or production process. Furthermore, while the article does provide evidence for its claims regarding the effectiveness of these materials for EMW absorption purposes, it does not provide any evidence to support its claims regarding their light weight or thin matching thickness properties.

In conclusion, while this article is generally reliable and trustworthy in its discussion of efficient EMW absorbing materials, there are some areas where it could be improved upon in terms of trustworthiness and reliability such as exploring counterarguments or presenting both sides equally when discussing potential risks associated with EMW radiation exposure or providing evidence to support its claims regarding light weight or thin matching thickness properties.

# Topics for further research:

* EMW radiation exposure risks
* Environmental impacts of EMW absorbing materials
* Lightweight EMW absorbing materials
* Thin matching thickness EMW absorbing materials
* Counterarguments to EMW radiation exposure
* Synthesis of magnetic nanoparticles for EMW absorption

# Report location:

<https://www.fullpicture.app/item/0aa8c4d05e1aa4958a56258fc37e7d24>