# Article information:

Constructing a “pea-pod-like” alumina-graphene binary architecture for enhancing thermal conductivity of epoxy composite - ScienceDirect  
<https://www.sciencedirect.com/science/article/pii/S1385894719320935>

# Article summary:

1. Vacuum-assisted filtration has been used to prepare heat spreader films, which have poor heat dissipation performance in the axial direction.

2. A pea-pod-like binary alumina-graphene architecture has been fabricated via vacuum filtration and impregnated with epoxy to obtain alumina-graphene/epoxy composite.

3. The thermal conductivity of epoxy composite in axial direction has risen to 13.3 W m−1 K−1 with the assistance of pea-pod-like binary alumina-graphene foam.

# 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, as it provides a detailed description of the research conducted and its results, as well as references to other relevant studies that support its claims. The article does not appear to be biased or one-sided, as it presents both sides of the argument equally and objectively. Furthermore, all claims made are supported by evidence from experiments and simulations, making them credible and reliable. Additionally, potential risks are noted throughout the article, such as the use of hydrochloric acid for removing Ni template from graphene foam.

The only potential issue with this article is that it does not explore any counterarguments or alternative solutions to the problem being addressed. While this is understandable given the scope of the article, it would have been beneficial if some counterarguments had been explored in order to provide a more comprehensive overview of the topic at hand.

# Topics for further research:

* Graphene foam synthesis
* Alternative methods for Ni template removal
* Graphene foam applications
* Graphene foam properties
* Graphene foam fabrication
* Graphene foam structure

# Report location:

<https://www.fullpicture.app/item/bed4e7c428b0bc477dac4fbf5c27abb8>