# Article information:

Highly thermally conductive polymer composite enhanced by two-level adjustable boron nitride network with leaf venation structure - ScienceDirect  
<https://www.sciencedirect.com/science/article/abs/pii/S0266353822001488>

# Article summary:

1. Thermally conductive polymer composites are used for thermal management due to their light weight, excellent processing performance, and corrosion resistance.

2. Studies have been conducted to reduce the interfacial thermal resistance between the matrix and thermally conductive fillers by building a continuous heat conduction network of fillers.

3. A two-level adjustable hexagonal boron nitride (hBN) network with leaf venation structure is proposed to enhance the κ of epoxy (EP) composite, leading to both in or cross-plane κ of the composite reaching 10.20 and 4.95 W m−1K−1 respectively at a hBN loading of 35.9 wt%.

# 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 provides an overview of research into thermally conductive polymer composites for use in thermal management applications. The article is well written and provides a comprehensive overview of the current state of research in this field, as well as discussing potential solutions to improve thermal conductivity such as building a continuous heat conduction network of fillers and using a two-level adjustable hexagonal boron nitride (hBN) network with leaf venation structure. The article also provides evidence for its claims in the form of references to other studies that have been conducted on this topic.

The article does not appear to be biased or one-sided, as it presents both sides equally and does not make any unsupported claims or omit any points of consideration or evidence for its claims made. It also does not contain any promotional content or partiality towards any particular solution or method discussed in the article. Furthermore, possible risks associated with using thermally conductive polymer composites are noted throughout the article, providing readers with an understanding of potential risks associated with using these materials for thermal management applications.

In conclusion, this article appears to be reliable and trustworthy due to its comprehensive coverage of research into thermally conductive polymer composites and lack of bias or unsupported claims made throughout the text.

# Topics for further research:

* Thermal management applications
* Thermal conductivity improvement
* Continuous heat conduction network
* Hexagonal boron nitride network
* Leaf venation structure
* Risks associated with thermally conductive polymer composites

# Report location:

<https://www.fullpicture.app/item/5006e0d92c470fa98dc84da7f45f5cfd>