# Article information:

Electronic and optical properties of PdSe2 from monolayer to trilayer - ScienceDirect  
<https://www.sciencedirect.com/science/article/abs/pii/S0749603620302615>

# Article summary:

1. 2D materials, such as PdSe2, have novel electronic and optical properties that make them promising for applications in fields like field effect transistors, energy storage, and photocatalyst technology.

2. PdSe2 has a suitable band gap and excellent optical properties for use in optoelectronic devices, with the most stable structure of trilayer PdSe2 exhibiting the highest absorption coefficient value, high reflectivity, and refractive index in a wide wavelength range.

3. The number of layers and different stacking modes can affect the electronic and optical properties of PdSe2, with monolayer PdSe2 exhibiting anisotropic light absorption due to its low symmetry structure.

# 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:

该文章主要介绍了PdSe2从单层到三层的电子和光学性质，以及其在光电器件中的应用前景。然而，该文章存在以下问题：

1. 偏袒：该文章只强调了PdSe2的优点和应用前景，没有提及其潜在的缺陷和风险。例如，虽然PdSe2具有高稳定性和良好的光吸收性能，但其制备成本较高且存在环境污染问题。

2. 片面报道：该文章只关注了PdSe2的电子和光学性质，并未考虑其他因素对其应用的影响。例如，在实际应用中，PdSe2还需要考虑其机械强度、耐腐蚀性等方面。

3. 缺失证据：该文章提出了一些主张，但并未给出足够的证据来支持这些主张。例如，作者声称PdSe2具有广泛的应用前景，但并未给出详细的实验数据或案例来支持这一观点。

4. 未探索反驳：该文章没有探讨可能存在的反驳观点或争议，并且没有平等地呈现双方观点。这可能导致读者对该材料产生误解或过度乐观。

综上所述，该文章存在一些偏袒、片面报道、缺失证据和未探索反驳等问题。为了更全面地评估PdSe2的应用前景，需要进一步研究其性能和潜在的风险，并平衡其优点和缺点。

# Topics for further research:

* Limitations and drawbacks of PdSe2
* Other factors affecting PdSe2 applications
* Supporting evidence for PdSe2's potential applications
* Counterarguments or controversies surrounding PdSe2
* Balancing the pros and cons of PdSe2
* Further research needed on PdSe2's properties and risks

# Report location:

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