# Article information:

Seismic Velocity Structure of the Magnetic Quiet Zone and Continent‐Ocean Boundary in the Northeastern South China Sea - Wan - 2019 - Journal of Geophysical Research: Solid Earth - Wiley Online Library
<https://agupubs.onlinelibrary.wiley.com/doi/10.1029/2019JB017785>

# Article summary:

1. The presence of a thick Mesozoic layer with low magnetic susceptibility induces the magnetic quiet zone in the continental slope.

2. Magmatic underplating caused multiple isolated lower crust high-velocity zones but not a single high-velocity layer.

3. Deep mantle upwelling and serpentinization occurred at the continent-ocean boundary.

# 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:

The article “Seismic Velocity Structure of the Magnetic Quiet Zone and Continent‐Ocean Boundary in the Northeastern South China Sea” by Wan (2019) is an informative and reliable source of information on seismic velocity structure in the northeastern South China Sea. The article provides detailed descriptions of the data collected from multichannel reflection seismic and wide-angle reflection/refraction seismic experiments, as well as forward magnetic modeling to confirm that a thick Mesozoic layer with low magnetic susceptibility induces the magnetic quiet zone in the continental slope. Additionally, it discusses magmatic underplating causing multiple isolated lower crust high-velocity zones, and deep mantle upwelling and serpentinization occurring at the continent-ocean boundary.

The article is written in an objective manner, presenting both sides equally without any bias or promotional content. It also provides evidence for its claims through detailed descriptions of data collection methods, forward modeling results, and other relevant information. Furthermore, it acknowledges potential risks associated with its findings such as lack of direct sampling of deep materials in the South China Sea, which adds to its trustworthiness and reliability.

In conclusion, this article is a trustworthy and reliable source of information on seismic velocity structure in the northeastern South China Sea due to its objective writing style, evidence for its claims, acknowledgement of potential risks associated with its findings, and lack of bias or promotional content.

# Topics for further research:

* Seismic velocity structure South China Sea
* Multichannel reflection seismic
* Wide-angle reflection/refraction seismic
* Magnetic quiet zone continental slope
* Magmatic underplating lower crust
* Deep mantle upwelling serpentinization

# Report location:

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