# Article information:

Sedimentological and Geochemical Composition of Aeolian Sediments in the Taklamakan Desert: Implications for Provenance and Sediment Supply Mechanisms - Jiang - 2019 - Journal of Geophysical Research: Earth Surface - Wiley Online Library
<https://agupubs.onlinelibrary.wiley.com/doi/full/10.1029/2018JF004990>

# Article summary:

1. This study combines sedimentological, geochemical, and geomorphological methods to identify the provenance of sand and dust fractions of sediments in the Taklamakan Desert.

2. The Kunlun Mountains are the main source of the sand fraction, while both the Kunlun and Tian Shan Mountains are the main sources of the dust fraction.

3. The relative importance of silt-producing mechanisms for desert dust is also assessed.

# 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 “Sedimentological and Geochemical Composition of Aeolian Sediments in the Taklamakan Desert: Implications for Provenance and Sediment Supply Mechanisms” by Jiang (2019) is a reliable source that provides an in-depth analysis on sediment provenance and supply mechanisms in the Taklamakan Desert. The article is well-structured, with clear objectives outlined at the beginning, followed by a comprehensive discussion on sedimentology, geochemistry, and geomorphology to support its findings. Furthermore, it includes data from grain size analysis as well as major, trace, and rare earth elements content within bulk samples, sand fractions (>63 μm), and dust fractions (<63 μm). This provides evidence for its claims regarding sediment provenance and supply mechanisms in this region.

The article does not appear to be biased or one-sided; it presents both sides equally by providing evidence from multiple sources such as wind data to support its conclusions. It also acknowledges potential risks associated with its findings such as how inferences of sediment provenance may be strongly dependent on grain size being analyzed. Additionally, there are no unsupported claims or missing points of consideration that could affect its reliability or trustworthiness.

In conclusion, this article is a reliable source that provides an in-depth analysis on sediment provenance and supply mechanisms in the Taklamakan Desert based on evidence from multiple sources such as grain size analysis and major/trace/rare earth elements content within bulk samples, sand fractions (>63 μm), and dust fractions (<63 μm). It does not appear to be biased or one-sided; it presents both sides equally by providing evidence from multiple sources such as wind data to support its conclusions.

# Topics for further research:

* Aeolian sediment transport
* Sediment provenance analysis
* Grain size analysis
* Major/trace/rare earth elements
* Wind data interpretation
* Sediment supply mechanisms

# Report location:

<https://www.fullpicture.app/item/ba617e92894aa540070bc2911b1b751f>