# Article information:

Felsic volcanism as a factor driving the end-Permian mass extinction | Science Advances
<https://www.science.org/doi/10.1126/sciadv.abh1390>

# Article summary:

1. This article explores the potential contribution of felsic volcanism to the end-Permian mass extinction.

2. Evidence of extreme copper enrichment in South China is linked to sulfur-rich vapor produced by felsic volcanism, which could have caused rapid cooling before or coincident with global warming.

3. The authors suggest that the Siberian Traps large igneous province may not have been the sole trigger for the mass extinction event.

# 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 “Felsic Volcanism as a Factor Driving the End-Permian Mass Extinction” is an interesting and well-researched piece of work that provides evidence for a potential contribution of felsic volcanism to the end-Permian mass extinction event. The authors provide evidence for extreme copper enrichment in South China associated with sulfur-rich vapor produced by felsic volcanism, which could have caused rapid cooling before or coincident with global warming. They also suggest that the Siberian Traps large igneous province may not have been the sole trigger for this event.

The article is generally reliable and trustworthy, as it is based on robust evidence supported by high-precision U-Pb dating and other geochemical data from South China. The authors provide detailed explanations of their findings and make clear arguments about their implications for understanding this mass extinction event. Furthermore, they acknowledge existing uncertainties surrounding this topic and present possible counterarguments to their own claims, such as noting that more than one third of erupted volcanic rocks postdated the EPME horizon and suggesting that outgassing from the STLIP alone may have been insufficient to trigger global climate changes associated with this event.

However, there are some points of consideration missing from this article that should be addressed in future research on this topic. For example, while it is acknowledged that there were other factors contributing to this mass extinction event (e.g., ocean acidification), there is no discussion of how these factors interacted with each other or how they might have contributed to its severity. Additionally, while it is noted that there was a prolonged biodiversity decline pattern before the STLIP eruptions in Siberia, there is no discussion of how this decline might have impacted species’ resilience to environmental changes associated with these eruptions or other factors contributing to this mass extinction event. Finally, while it is suggested that outgassing from the STLIP alone may not have been sufficient to trigger global climate changes associated with this event, there is no discussion of what other sources might have contributed additional greenhouse gases or poisonous gases into Earth’s atmosphere at this time period.

In conclusion, overall “Felsic Volcanism as a Factor Driving the End-Permian Mass Extinction” provides an interesting perspective on a complex issue and presents compelling evidence for its claims; however, further research should be conducted in order to explore some of its missing points of consideration and gain a more comprehensive understanding of all factors contributing to this mass extinction event.

# Topics for further research:

* End-Permian mass extinction factors
* Interaction of mass extinction factors
* Biodiversity decline before STLIP eruptions
* Species resilience to environmental changes
* Sources of additional greenhouse gases
* Sources of poisonous gases during End-Permian

# Report location:

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