

Environmental Science: Advances

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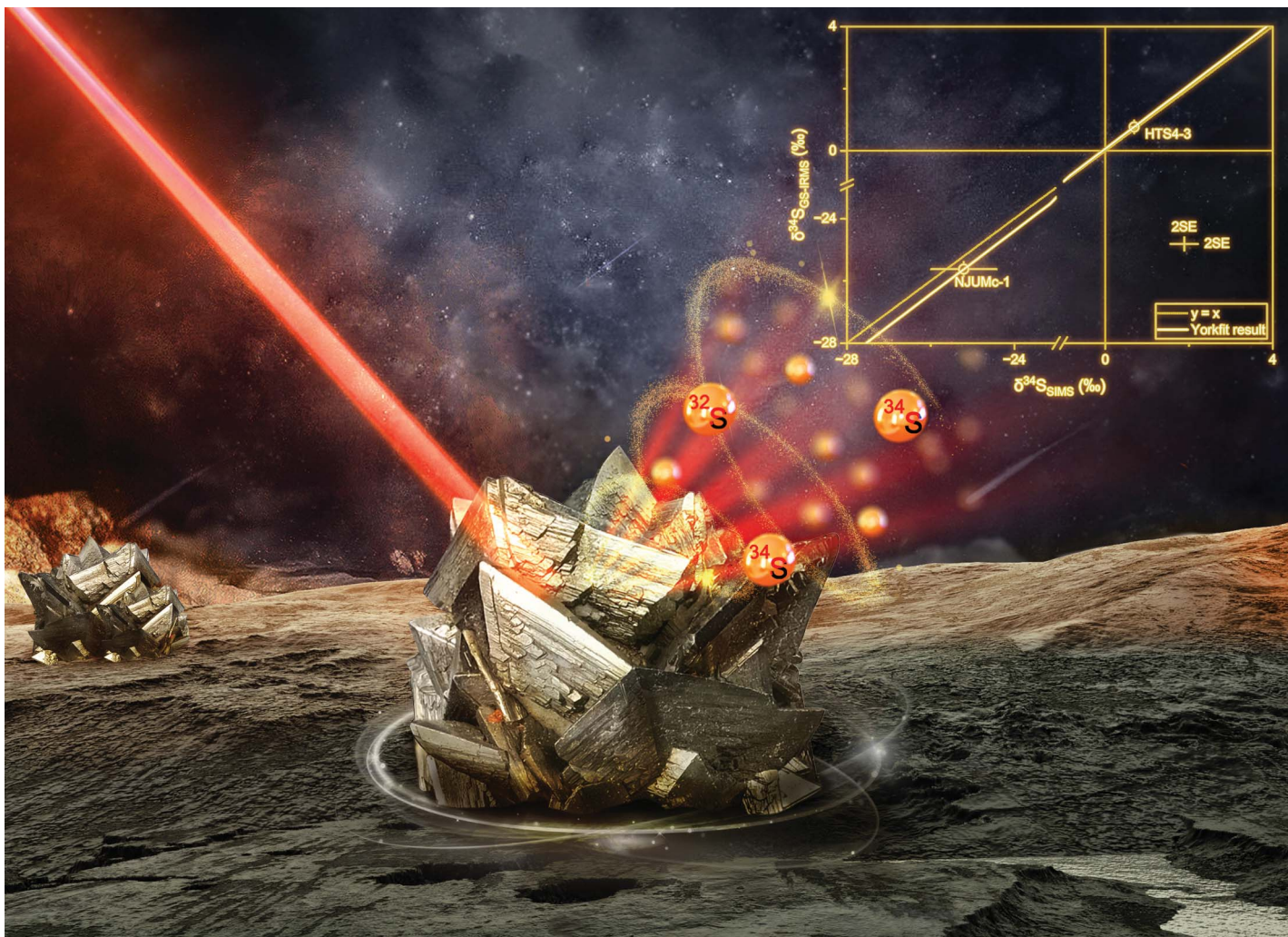
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Fundamental questions
Elemental answers



Showcasing research from Professor Xiao-Lei Wang's laboratory, School of Earth Sciences and Engineering, Nanjing University, Nanjing, China.

The feasibility of using a pyrite standard to calibrate the sulfur isotope ratio of marcasite during SIMS analysis

Pyrite standard is commonly used to calibrate the sulfur isotope ratios of marcasite during SIMS analysis. But the feasibility of this calibration regime has not been investigated. We investigated this topic by analyzing a natural marcasite (NJUMc-1) with Cameca IMS 1300-HR³. The average $\delta^{34}\text{S}$ value of NJUMc-1 calibrated by a pyrite standard agrees well with the result determined using gas source isotope ratio mass spectrometry, indicating that it is feasible to calibrate the sulfur isotopic ratios of marcasite with a pyrite standard.

As featured in:



See Xiao-Lei Wang *et al.*,
J. Anal. At. Spectrom.,
2023, **38**, 1016.