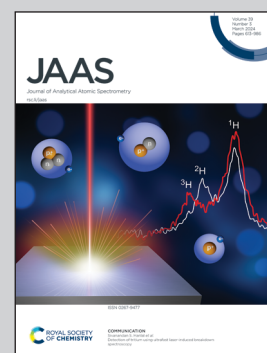


Showcasing research from Professor Lie-Wen Xie, State Key Laboratory of Lithospheric Evolution, Institute of Geology and Geophysics, Chinese Academy of Sciences, Beijing, P.R.China.

A study on a natural pyrite sample as a potential reference material for simultaneous measurement of sulfur and iron isotopes using fs-LA-MC-ICP-MSs

We examined a natural pyrite sample (IGGPy-1) to assess its suitability as a reference material for in situ micro-analysis of Fe and S isotopes, and proceeded to determine the Fe and S isotopic compositions. The technique was presented to enable simultaneous measurements of Fe and S isotopes in pyrite using a single laser spot, combining a femtosecond laser ablation system with two sets of MC-ICP-MS. This approach mitigates mismatch risks in isotopic data from different analytical domains, especially in samples with complex core-rim textures in sulfide deposits.

### As featured in:



See Lie-Wen Xie *et al.*,  
*J. Anal. At. Spectrom.*, 2024, **39**, 723.