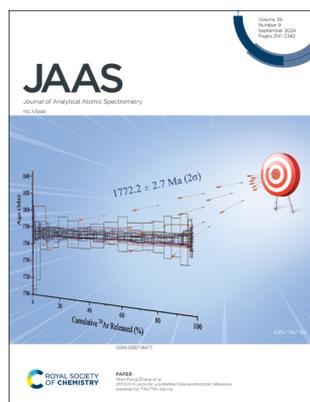


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ISSN 0267-9477 CODEN JASPE2 39(9) 2141–2342 (2024)



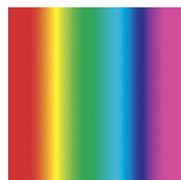
#### Cover

See Wan-Feng Zhang *et al.*, pp. 2173–2182. Image reproduced by permission of Wan-Feng Zhang from *J. Anal. At. Spectrom.*, 2024, **39**, 2173.

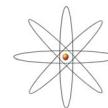
### EDITORIAL

2150

#### Atomic Spectrometry Updates: An overview and call for new writers



Atomic  
Spectrometry  
Updates

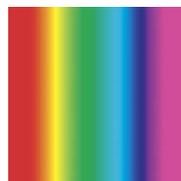


### ATOMIC SPECTROMETRY UPDATES

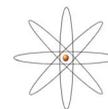
2152

#### Atomic spectrometry update: review of advances in X-ray fluorescence spectrometry and its special applications

Christine Vanhoof, Jeffrey R. Bacon, Ursula E. A. Fittschen and Laszlo Vincze



Atomic  
Spectrometry  
Updates



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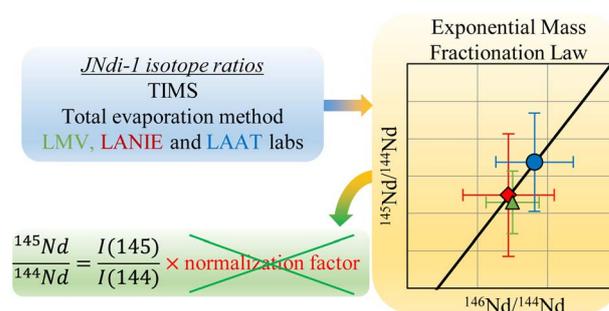
Fundamental questions  
Elemental answers

## TECHNICAL NOTE

2165

**Reference value of the JNdi-1 isotopic material without normalization**

Alexandre Quemet,\* Guillaume Lasnier, Sébastien Mialle, H  l  ne Isnard, Maud Boyet, Marion Gar  on and Delphine Auclair

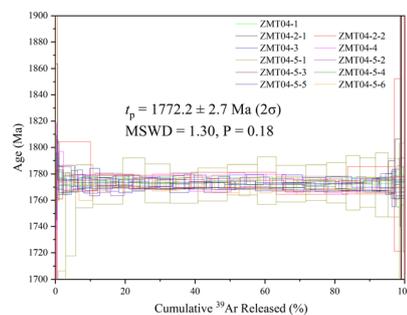


## PAPERS

2173

**ZMT04 muscovite: a potential Paleoproterozoic reference material for  $^{40}\text{Ar}/^{39}\text{Ar}$  dating**

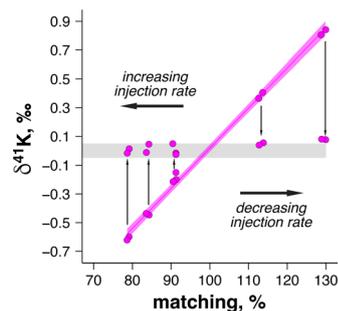
Wan-Feng Zhang,\* De-Wen Zheng, Fred Jourdan, Adam Frew, Celia Mayers, Yi-Gang Xu, Huai-Yu He, Yan-Qiang Zhang, Jun-Jie Wang, Ying-De Jiang, Ming Xiao, Jun-Jie Li and Jia Zhang



2183

**Routine measurement of high-precision potassium stable isotope compositions using a continuous-flow Neoma MC-ICPMS/MS**

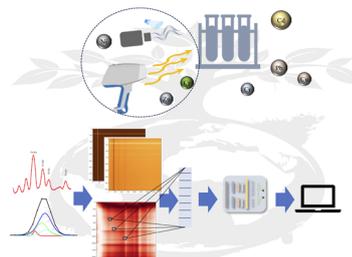
Emmanuelle Albalat, Philippe T  louk and Vincent Balter\*



2192

**Research on an XRF-visNIR soil heavy metal exceedance analysis method based on GAS transformation and PCANet**

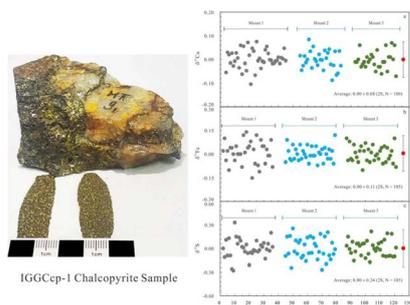
Qingya Wang,\* Liangliang Tao, Fusheng Li, Zhichun Wu, Yaoyi Cai and Shubin Lyu



Proposed innovative heavy metal screening method with XRF-visNIR data, Gramian Angular Summation, PCANet, and CNN. Excels in classification, addresses data merging, and identifies heavy metals in soil effectively through integrated analysis.



2207

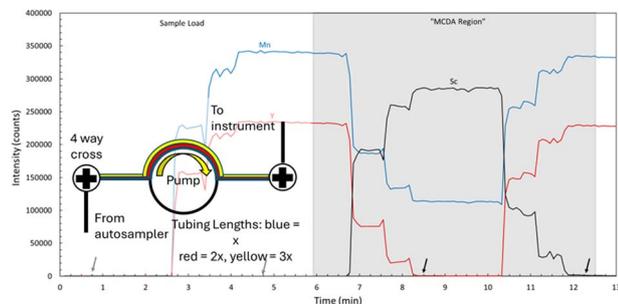


IGGCcp-1 Chalcopyrite Sample

### A potential natural chalcopyrite reference material for *in situ* copper, iron, and sulfur isotope measurements

Lie-Wen Xie,\* Hong-Rui Fan, Hui-Min Yu, Chao Huang, Lei Xu, Yue-Heng Yang, Shi-Tou Wu and Hao Wang

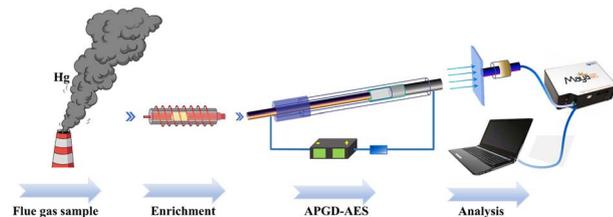
2220



### Multi-channel dilution analysis

Willis B. Jones,\* Robbie M. Huff, Adam L. Richardson, Taylor Dessoify, Sophie M. Lewis, Alexandria Eddy, Abigail J. Crossman and Bradley T. Jones

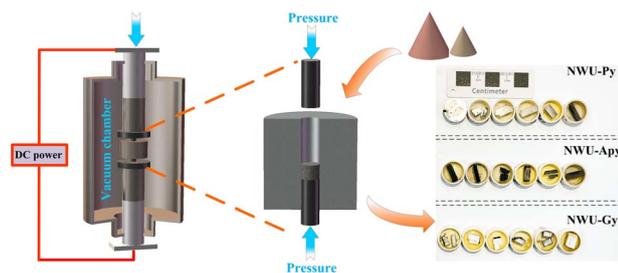
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### Ultra-sensitive determination of mercury in flue gas by atmospheric pressure glow discharge atomic emission spectrometry coupled with gold amalgam enrichment

Meng Gao, Rong Rong, Zhaoqing Cai and Zheng Wang\*

2235



### Three new potential sulfur reference materials (pyrite, gypsum, and arsenopyrite) for *in situ* sulfur isotope analysis by laser ablation MC-ICP-MS

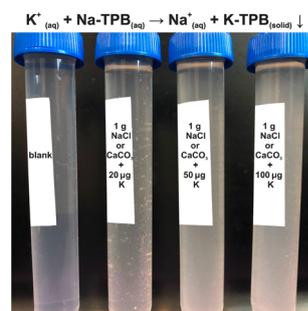
Deyi Peng, Zhian Bao, Kaiyun Chen, Nan Lv, Xiaojuan Nie, Jing Tian and Honglin Yuan\*



2245

## A novel method for extracting potassium (K) from K-poor and sodium-rich samples for high-precision stable K isotope analysis

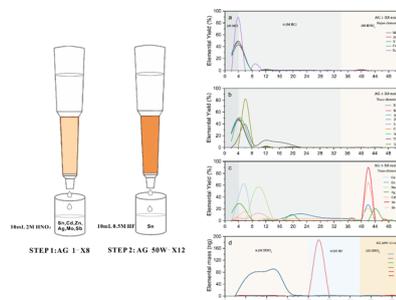
Xin-Yuan Zheng



2258

## A novel chemical purification method for accurate Sn isotope measurement by MC-ICP-MS

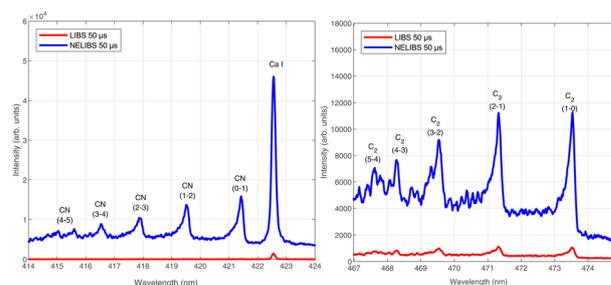
Qinyuan Qu, Wengang Liu, Wang Zheng, Benjamin Chetelat, Qingchuan Liu and Jiubin Chen\*



2270

## Investigation of signal enhancement in nanoparticle enhanced molecular LIBS of graphite

Swetapuspa Soumyashree\* and Prashant Kumar

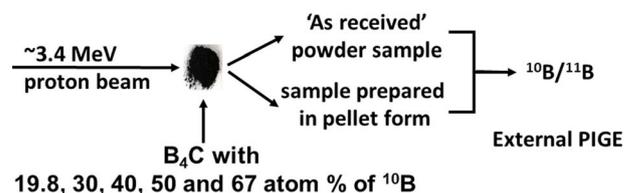


2278

## Potential of external (in air) particle induced gamma-ray emission method for the preparation of isotopic composition of boron in-house reference standard in boron carbide matrix for quality control work

Sk Wasim Raja,\* R. Acharya, Arati D. Sonawane, T. S. R. C. Murthy and S. Majumdar

### Preparation of in-house reference standards for isotopic compositions of B in $B_4C$ matrix by external PIGE



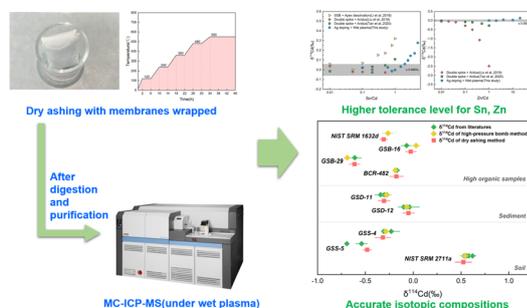
2290



### Quality control in workshop production of NdFeB magnetic materials using an LIBS rare earth magnet instrument

Guanyu Chen, Bohao Su, Dongming Qu, Xueying Jin, Guang Yang,\* Qingkai Li\* and Tao Wang

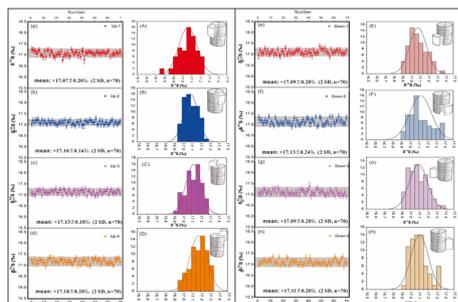
2298



### Cadmium isotopes analysis of environmental samples with high organic matter by dry ashing method under wet plasma conditions

Xian Wu, Zeyu Wang, Guangyi Sun,\* Yu Lin, Xuewu Fu,\* Yang Tang and Xinbin Feng

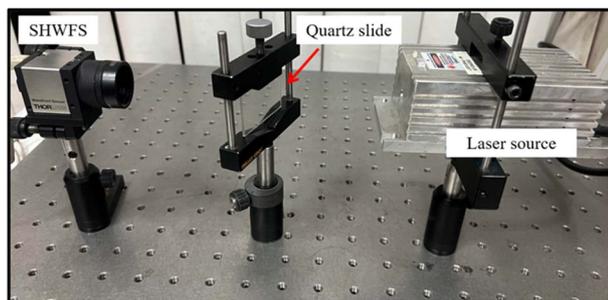
2309



### A synthesized sphalerite standard for *in situ* analysis of sulfur isotopes and trace elements by LA-MC-ICP-MS and LA-ICP-MS

Zhi-hui Dai, Peng Liao, Deng-jun Wang, Sen Lin,\* He-ping Li, Zhi-an Bao, Ke-jun Hou, Lie-meng Chen, Ting-guang Lan and Can Cui

2319



### Wavefront-enhanced laser-induced breakdown spectroscopy (WELIBS) with lasers at multi-wavelengths via crystalline quartz

Asmaa Elhassan, Raghda Hosny El-Saeid, Rania M. Abdelazeem, Zienab Abdel-Salam and Mohamed Abdel-Harith\*

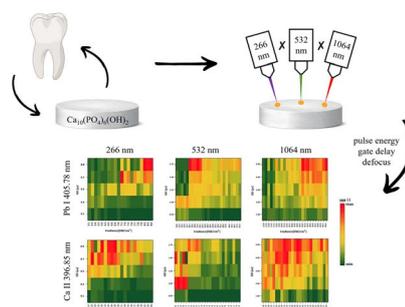


## PAPERS

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### Investigating the effects of laser wavelengths and other ablation parameters on the detection of biogenic elements and contaminants in hydroxyapatite

Aida Fazlić, Anna Faruzelová, Jakub Buday, Lenka Michlovská, Lucy Vojtová, Pavlína Modlitbová, Pavel Pořízka\* and Jozef Kaiser



## CORRECTION

2340

### Correction: (LA)-MC-ICPMS/MS measurement of Sr radiogenic isotope ratios

Philippe Télouk and Vincent Balter\*

