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#### Journal of Analytical Atomic Spectrometry

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#### IN THIS ISSUE

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#### Inside cover

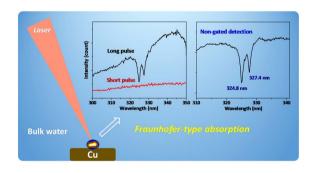
See Rui-Ying Li et al., pp. 1962–1972. Image reproduced by permission of Rui-Ying Li from J. Anal. At. Spectrom., 2023, 38, 1962.

#### COMMUNICATION

#### 1908

Fraunhofer-type absorption lines from a submerged Cu target by long-pulse laser-induced breakdown spectroscopy: toward non-gated detection

Nan Li, Naoya Nishi, Ronger Zheng, Yongqiu Zheng, Jinge Guan, Chenyang Xue, Zengxing Zhang\* and Tetsuo Sakka\*

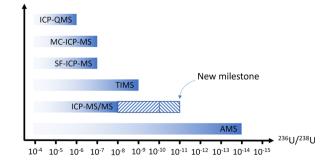


#### **TECHNICAL NOTES**

#### 1914

A new milestone for ultra-low  $^{236} \rm U/^{238} \rm U$  isotope ratio measurements by ICP-MS/MS

Hugo Jaegler\* and Alkiviadis Gourgiotis



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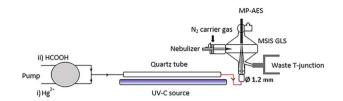


#### **TECHNICAL NOTES**

#### 1920

Modified MSIS chamber as a novel gas-liquid separator coupled with the photochemical vapor generation of trace mercury with MP-AES detection

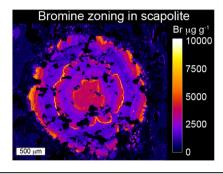
D. Stoitsov,\* V. Kmetov and A. Canals



#### 1927

Interference-free electron probe micro-analysis of bromine in halogen-bearing minerals and glasses: high-resolution measurements and quantitative elemental mapping

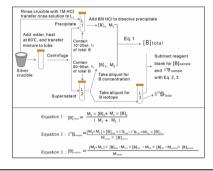
Johannes Hammerli\* and Scott Boroughs



#### 1934

Improved alkaline fusion method for B isotope and concentration measurements of silicate materials

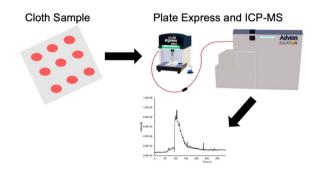
Yue Cai,\* Ting Ruan, Ye Li, Baichan Li, Weiwei Zhang, Zhenghui Li, Haizhen Wei and E. Troy Rasbury



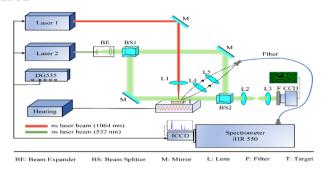
#### 1943

Direct, multielement determinations from cotton swipes via plate express microextraction coupled to an inductively coupled plasma mass spectrometer (µEx-ICP-MS)

Cameron J. Stouffer and R. Kenneth Marcus\*



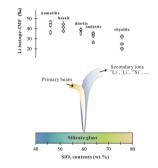
#### 1952



#### Measurement of transient temperature using laserinduced breakdown spectroscopy (LIBS) with the surface temperature effect

Zefeng Yang, Bo Tang, Yan Qiu, Jian Wu, Wenfu Wei,\* Xuefei Huang, Xingmao Luo and Guangning Wu

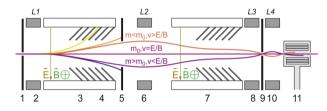
#### 1962



## A silica-related matrix effect on NanoSIMS Li isotopic analysis of glasses and its online calibration

Rui-Ying Li, Jialong Hao, Wei Yang,\* Heng-Ci Tian, Sen Hu and Yangting Lin

#### 1973



# Performance of the double-Wien filter of the Neoma MC-ICPMS/MS with an application to copper stable isotope compositions

Philippe Télouk, Emmanuelle Albalat, Bernard Bourdon, Francis Albarède and Vincent Balter\*

#### 1984



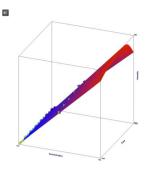
# Accurate determination of trace silver in geological reference materials by inductively coupled plasmatandem mass spectrometry (ICP-MS/MS)

Jiawei Li, Keqing Zong,\* Dong Yan, Yaowei Du, Zaicong Wang, Wei Gao, Ming Li, Jie Lin, Wen Zhang, Haihong Chen, Zhaochu Hu and Yongsheng Liu

#### 1995

## Time resolved trace element calibration strategies for LA-ICP-MS

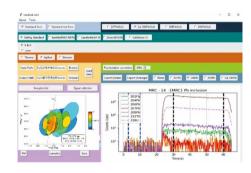
Bence Paul,\* Joseph Petrus, Dany Savard, Jon Woodhead, Janet Hergt, Alan Greig, Chad Paton and Peter Rayner



#### 2007

# Isoclock: a free and novel routine for common Pb correction in U-Th-Pb data reduction of LA-ICP-MS analysis

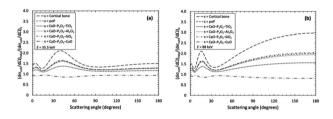
Guo-Qi Liu,\* Kui-Dong Zhao, Thomas Ulrich, Wei Chen, Di Zhang, Qian Li,\* He-Dong Zhao, Rong-Qing Zhang and Fei Xia\*



#### 2019

Evaluating calcium phosphate glass phantoms for the calibration of *in vivo* X-ray fluorescence spectrometry-based methods of bone strontium quantification

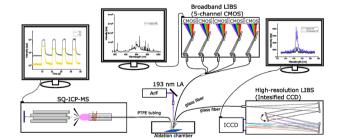
Matthew Micsa and Eric Da Silva\*



#### 2028

# Development of a simultaneous LA-ICP-MS & LIBS method for the investigation of polymer degradation

Jakob Willner, Lukas Brunnbauer, C. Derrick Quarles, Jr, Michael Nelhiebel, Silvia Larisegger and Andreas Limbeck\*



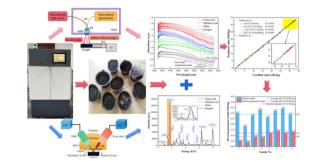
2038



## Speciation analysis of Tc radiopharmaceuticals by HPLC-ICP-MS and HPLC-ESI-HRMS

Maximilian Horstmann, Melanie Austrup, Felix Busch, Andreas Faust, Michael Sperling, Uwe Karst and David Clases\*

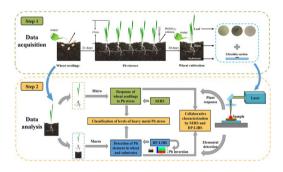
2046



# Development and application of a rapid coal calorific value analyzer based on NIRS-XRF

Rui Gao, Shuqing Wang, Jiaxuan Li, Zhihui Tian, Yan Zhang, Lei Zhang,\* Zefu Ye, Zhujun Zhu, Wangbao Yin\* and Suotang Jia

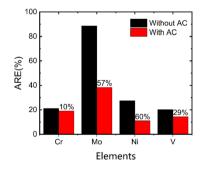
2059



# Collaborative estimation of heavy metal stress in wheat seedlings based on LIBS-Raman spectroscopy coupled with machine learning

Zihan Yang, Junmeng Li, Lingming Zuo, Yanru Zhao and Keqiang Yu $^\star$ 

2073

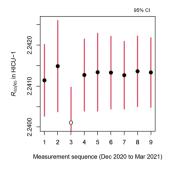


#### Improvement in detection reproducibility of laserinduced breakdown spectroscopy based on plasma acoustic correction

Zhishuai Xu, Li Liu, Zhongqi Hao,\* Zhiwei Deng, Ying Lu, Ziyi Zhao, Jiaming Li, Jiulin Shi and Xingdao He

Determination of the isotopic composition of copper in a certified reference material HICU-1 by MC-ICP-MS using gravimetric isotope mixture calibration

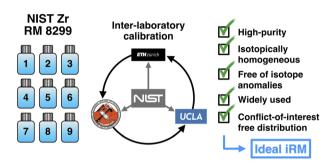
Lu Yang,\* Brad Methven, Zoltán Mester and Juris Meija



#### 2087

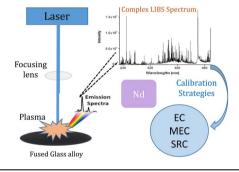
A community-led calibration of the Zr isotope reference materials: NIST candidate RM 8299 and **SRM 3169** 

François L. H. Tissot,\* Mauricio Ibañez-Mejia, Savelas A. Rabb, Rebecca A. Kraft, Robert D. Vocke, Manuela A. Fehr, Maria Schönbächler, Haolan Tang and Edward D. Young



Feasibility of laser-induced breakdown spectroscopy for determination of neodymium in magnet alloys

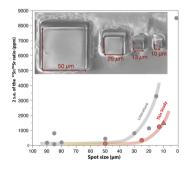
Aline de Carvalho Elias, Maciel Santos Luz, Ivanise Gaubeur, Juliana Naozuka, Fábio Rodrigo Piovezani Rocha and Cassiana Seimi Nomura\*



#### 2113

High spatial resolution (10-50  $\mu$ m) analysis of Sr isotopes in rock-forming apatite by LA-MC-ICP-MS

Anda Buzenchi,\* Hugo Moreira, Olivier Bruguier, Delphine Bosch and Bruno Dhuime



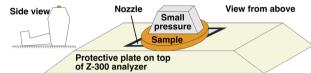
#### 2127

# A method for detecting trace heavy metals in biological tissues using ME-XRF technique was established and applied in real cases X-ray tube Biological tissue Biological tissue Doubly-curved crystal (DCC)

# Simultaneous detection of trace As, Hg, Tl, and Pb in biological tissues using monochromatic excitation X-ray fluorescence spectrometry

Shihao Wu, Linpei Dong, Jiahua Ji, Peng Zhao, Ge Song, Xiaojun Wu, Jifen Wang, Yunfeng Zhang\* and Jingjing Wang

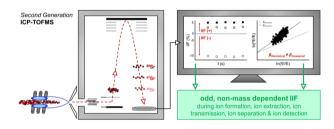
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## Determination of Ce and La in REE-rich ores using handheld LIBS and PLS regression

Timur F. Akhmetzhanov, Timur A. Labutin, Dmitry M. Korshunov, Alexey A. Samsonov and Andrey M. Popov\*

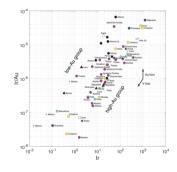
#### 2144



# Performance of second generation ICP-TOFMS for (multi-)isotope ratio analysis: a case study on B, Sr and Pb and their isotope fractionation behavior during the measurements

Anika Retzmann,\* Sebastian Faßbender, Martin Rosner, Marcus von der Au and Jochen Vogl

#### 2159



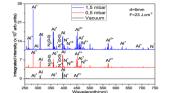
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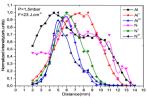
Francis Albarède,\* Chloé Malod-Dognin and Philippe Télouk

#### 2167

#### Investigation of AIN plasma induced by a laser into a vacuum and nitrogen ambience

Adel Tekili,\* Samira Abdelli-Messaci, Samia Kaloune, Azeddine Dekhira and Slimane Lafane

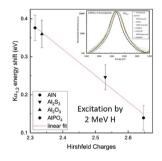


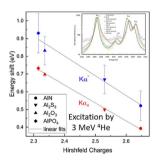


#### 2179

#### Influence of chemical effects on Al high-resolution Kα X-ray spectra in proton and alpha particle induced X-ray spectra

Stjepko Fazinić, Iva Božičević Mihalić,\* Anja Mioković, Mauricio Rodriguez Ramos and Marko Petric





#### Analysis of geological glasses by electron probe microanalysis under low beam current density conditions

Ji-Hao Zhu,\* Feng-You Chu, Klaus Peter Jochum, Xiu-Chun Zhan, Xing Ding, Bin Wu, Jiang-Gu Lu, Yun-Xiu Li, Yan-Hui Dong, Ji-Qiang Liu, Yu-Qi Wang and Shi-Tou Wu

