JAAS

Journal of Analytical Atomic Spectrometry

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IN THIS ISSUE

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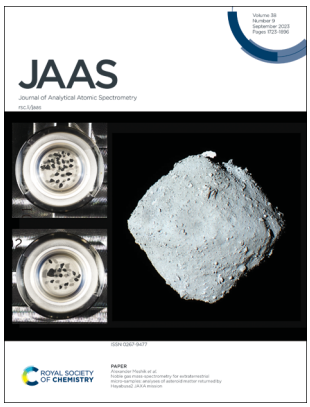

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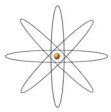
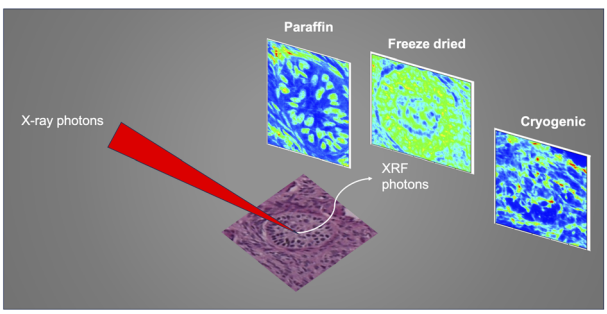
See Alexander Meshik *et al.*, pp. 1785–1797. Image reproduced by permission of JAXA (Japan Aerospace Exploration Agency) from *J. Anal. At. Spectrom.*, 2023, **38**, 1785.

ATOMIC SPECTROMETRY UPDATES



COMMUNICATION



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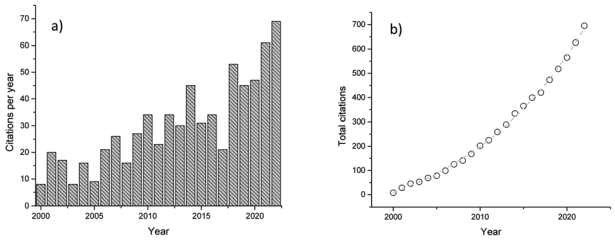
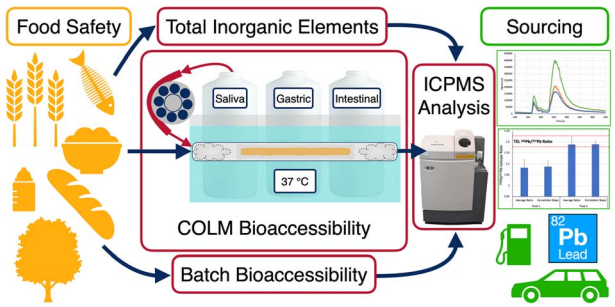
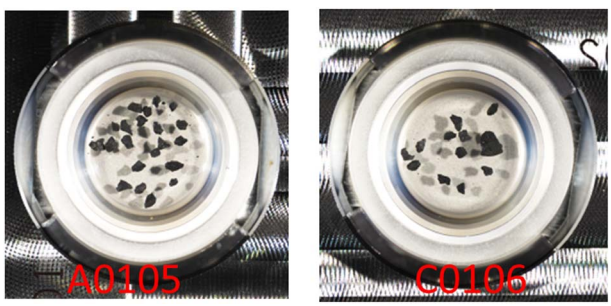
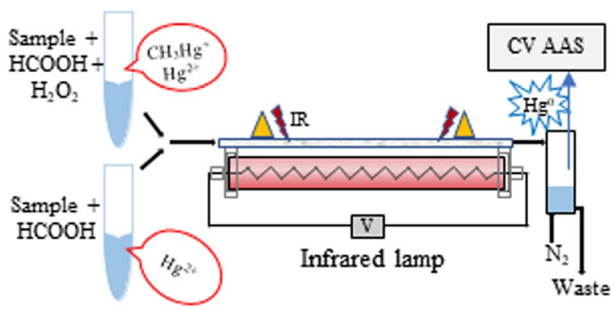


TUTORIAL REVIEW



PAPERS





PAPERS

1808

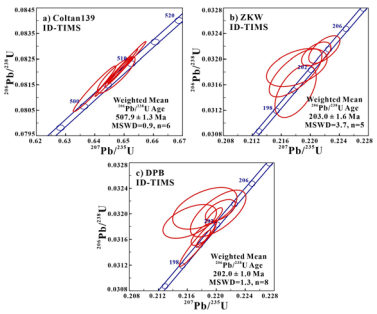
Time	Sample			Sample + spike		Recovery	
min	RD[a] μg kg^{-1}	RD*DF[b] μg kg^{-1}	RSD	μg kg^{-1}	RSD	%	RSD
0	1.09	109	1.3	11.01	1.3	99.2	2.9
30	0.95	95	6.1	10.30	6.1	93.5	0.5
60	0.97	97	5.4	10.65	5.4	96.7	1.9
90	1.03	103	5.2	10.61	5.2	95.8	3.7
120	0.91	91	5.6	9.94	5.6	90.4	1.9
150	1.00	100	3.3	10.13	3.3	91.2	1.1
180	1.06	106	0.5	10.95	0.5	98.9	1.2

[a] Raw data, [b] dilution factor

Determination of chlorine in Hf precursors by high-resolution inductively coupled plasma mass spectrometry

Hanul Lee, Seongkyong Joo and Dongchul Suh*

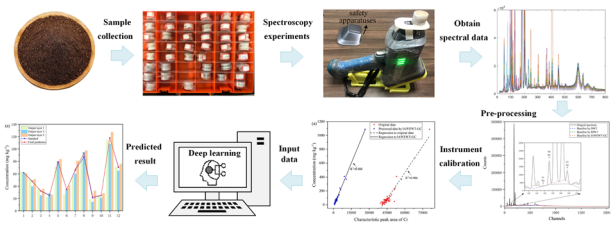
1816



Characterization of reference materials for *in situ* U–Pb dating of columbite group minerals by LA-ICP-MS

Ming Yang, Yue-Heng Yang,* Rolf L. Romer, Xu-Dong Che, Ru-Cheng Wang, Fu-Yuan Wu, Guang-Chun Fei, Yun Deng and Tao Wu

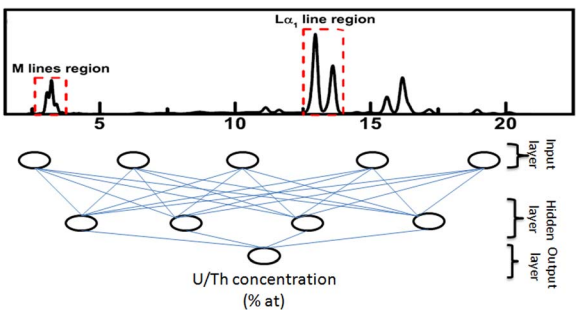
1830



Quantitative analysis of heavy metals in soil *via* hierarchical deep neural networks with X-ray fluorescence spectroscopy

Wanqi Yang, Fusheng Li,* Shubin Lyu, Qinglun Zhang and Yanchun Zhao

1841



An X-ray fluorescence and machine learning based methodology for the direct non-destructive compositional analysis of $(Th_{1-x}U_x)O_2$ fuel pellets

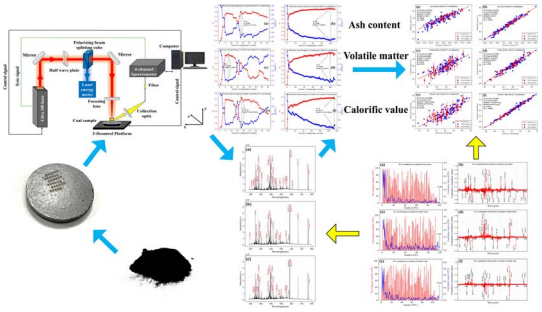
Buddhadev Kanrar,* Kaushik Sanyal, Arnab Sarkar and Rajesh V. Pai

PAPERS

1851

Determination of ash content, volatile matter, and calorific value in coal by OLS combined with laser-induced breakdown spectroscopy based on PC recombination

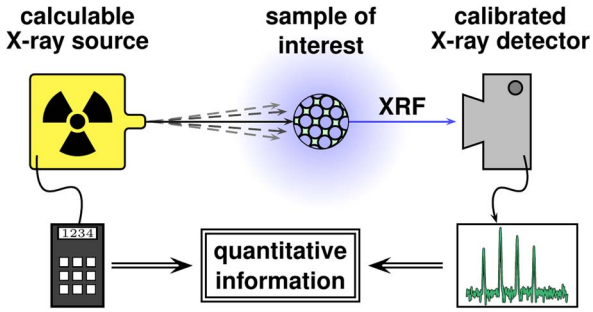
Shengen Zhu, Wenhao Zhang,* Guangdong Song,* Yadong Li, Binxin Hu, Feng Zhu, Hua Zhang, Yubin Wei, Tengfei Sun and Jing Tang



1865

Reference-free X-ray fluorescence analysis using well-known polychromatic synchrotron radiation

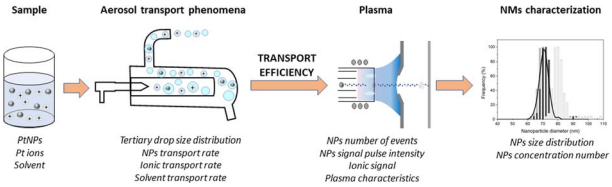
André Wählisch,* Malte Wansleben, Rainer Unterumsberger, Yves Kayser and Burkhard Beckhoff



1874

Unraveling the role of aerosol transport on nanomaterial characterization by means single particle inductively coupled plasma mass spectrometry

Daniel Torregrosa, Guillermo Grindlay, Luis Gras and Juan Mora



1885

Titanium and titanium oxides at the K- and L-edges: comparing theoretical calculations to X-ray absorption and X-ray emission measurements

Karina Bzheumikhova,* John Vinson, Rainer Unterumsberger, Malte Wansleben, Claudia Zech, Kai Schüler, Yves Kayser, Philipp Hönicke and Burkhard Beckhoff