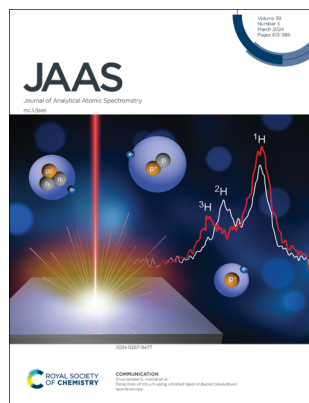


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See Sivanandan S. Harilal et al., pp. 699–703. Cover artwork was prepared by Michael Perkins, copyright Battelle Memorial Institute from *J. Anal. At. Spectrom.*, 2024, 39, 699.

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Atomic spectrometry update: review of advances in the analysis of clinical and biological materials, foods and beverages

Marina Patriarca,* Nicola Barlow, Alan Cross, Sarah Hill, Anna Robson and Julian Tyson



Atomic
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Updates

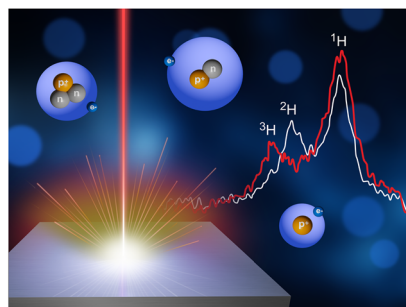


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Detection of tritium using ultrafast laser-induced breakdown spectroscopy

Sivanandan S. Harilal,* Abdul K. Shaik, Elizabeth J. Kautz, Arun Devaraj, Andrew M. Casella and David J. Senor



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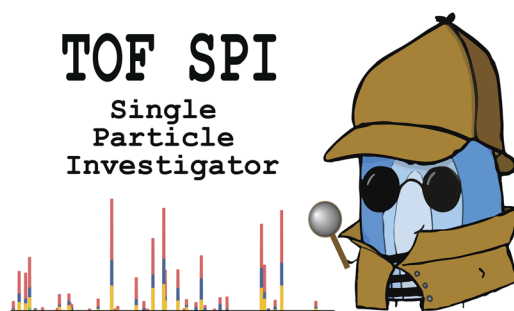
Fundamental questions
Elemental answers

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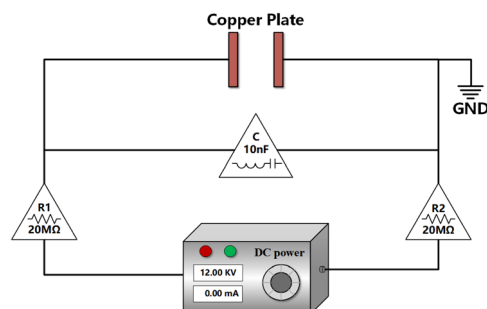
Alex Gundlach-Graham,* Stasia Harycki, Sarah E. Szakas, Tristen L. Taylor, Hark Karkee, Raven L. Buckman, Shahnaz Mukta, Rui Hu and Woolin Lee



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Spectral enhancement and quantitative accuracy improvement of trace metal elements in aqueous solutions using electrostatic-assisted laser-induced breakdown spectroscopy

Peijin Ju, Xun Gao,* Hailong Yu, Qiuyun Wang,* Yinping Dou and Jingquan Lin

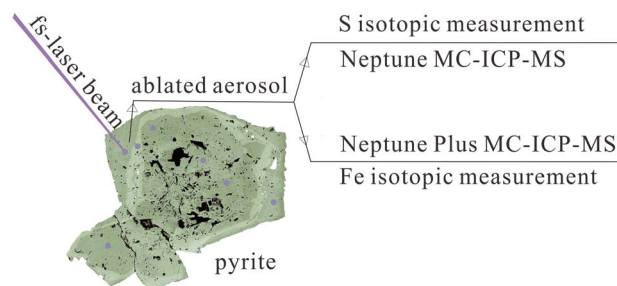


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A study on a natural pyrite sample as a potential reference material for simultaneous measurement of sulfur and iron isotopes using fs-LA-MC-ICP-MSs

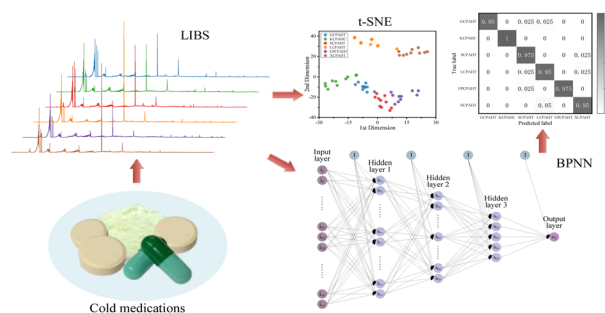
Lie-Wen Xie,* Xiao-Jun Wang, Hui-Min Yu, Jian-Feng Gao, Lei Xu, Chao Huang, Guo-Qiang Tang, Qian Mao, Lian-Jun Feng, Yue-Heng Yang, Shi-Tou Wu and Hao Wang



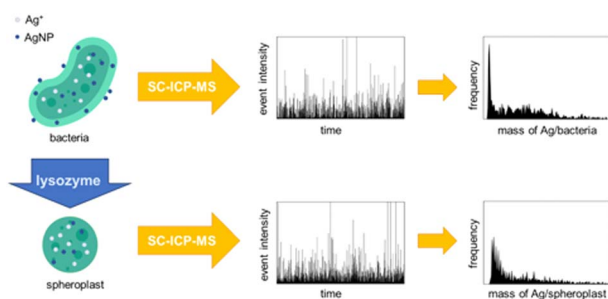
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Traceability of cold medications with similar ingredients based on laser-induced breakdown spectroscopy

Lixing Yao, Jingwen Li, Yu Liu, Li Shen* and Cong Wang*



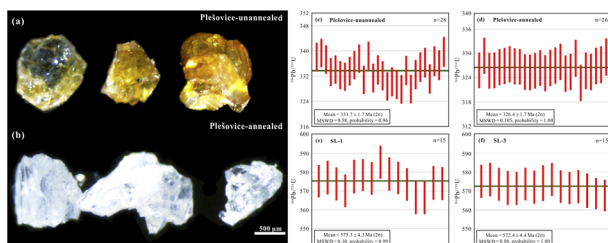
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Performance of single-cell ICP-MS for quantitative biodistribution studies of silver interactions with bacteria

Ana C. Gimenez-Ingalaturre, Isabel Abad-Álvaro,^{*} Pilar Goñi, Kharmen Billimoria, Heidi Goenaga-Infante and Francisco Laborda

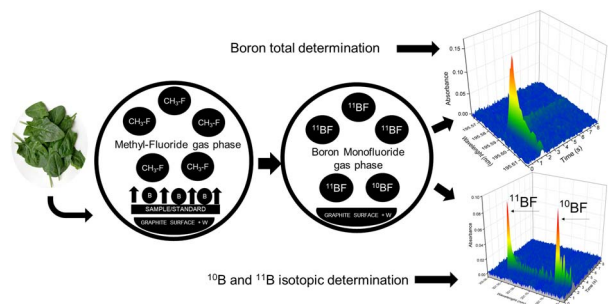
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Optimization of standard zircon U–Pb dating: insights into high-temperature thermal annealing

Mingpu Fan, Xiaoming Liu, Shengsi Sun,^{*} Yunpeng Dong and Zhian Bao

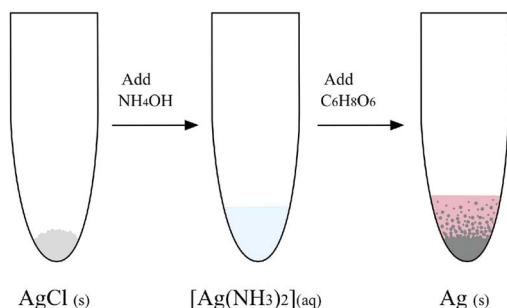
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Boron elemental and isotopic determination via the BF diatomic molecule using high-resolution continuum source graphite furnace molecular absorption spectrometry

Maite Aramendia, André L. M. de Souza, Flávio V. Nakadi and Martín Resano^{*}

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Simplifying silver isotope analysis of metallic samples: using silver nitrate precipitation to avoid perilous chloride formation

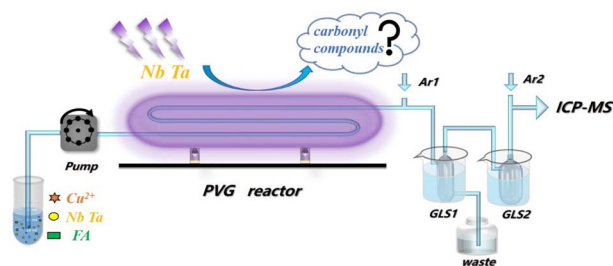
Alex J. McCoy-West,^{*} Alison M. Davis, Ashlea N. Wainwright and Andrew G. Tomkins



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Transition metal ion assisted photochemical vapor generation of niobium and tantalum

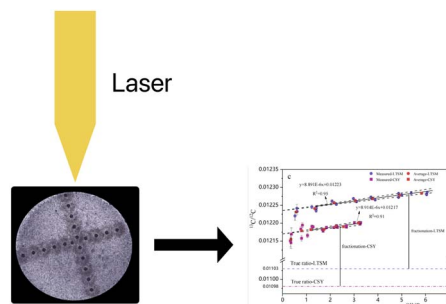
Liang Dong, Yongyan Ning, Jing Hu,* Weigao Wang, Ying Yu and Ying Gao*



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In situ carbon stable isotope measurement for graphite using LA-MC-ICP-MS

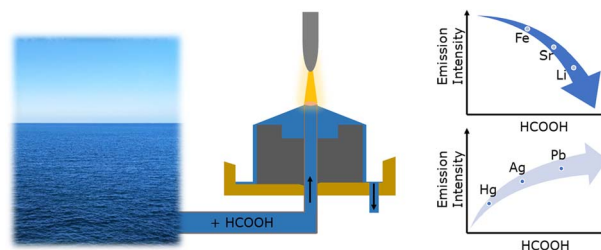
Jihao Zhang, Chao Li,* Xinwei Li, Wei Wang, PengYue Yu, Limin Zhou and Wenjun Qu



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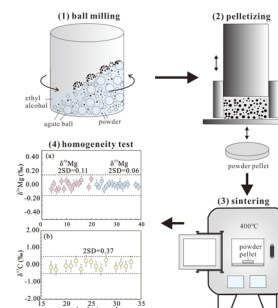
Yinchenxi Zhang, Jaime Orejas,* Jorge Pisonero* and Nerea Bordel



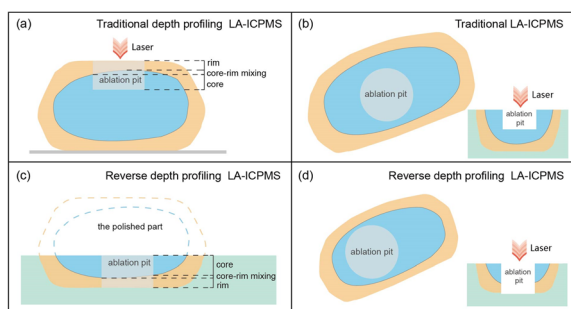
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Dolomite reference material synthesized by pressureless sintering for laser ablation MC-ICP-MS carbon and magnesium isotope analysis

Jue Lu, Wei Chen,* Hong-Yun Jin, Jiao Jiang, Jie Lin, Ao Yang, Ming Li, Kui-Dong Zhao, Shao-Yong Jiang and Yong-Sheng Liu



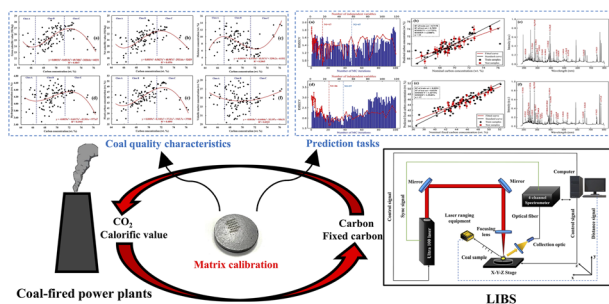
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A zircon LA-ICPMS reverse depth profiling analysis method and its geological application

Yao Lu, Liang-Liang Zhang,* Li Liu,* Di-Cheng Zhu, Jin-Cheng Xie and Qing Wang

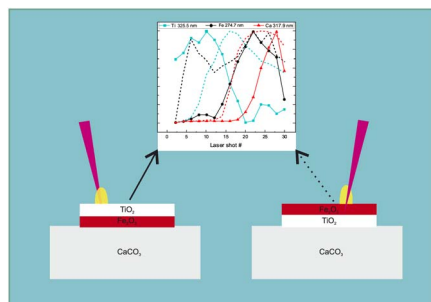
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LIBS analysis of elemental carbon and fixed carbon in coal by dual-cycle regression based on matrix-matched calibration

Shengen Zhu, Guangdong Song,* Wenhao Zhang,* Yu Zhang, Yubin Wei, Qinduan Zhang, Duo Chen, Jianfei Li and Tengfei Sun

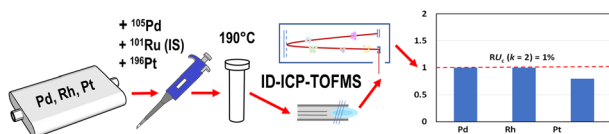
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On the study of paintings' stratigraphy by fs-LIBS and MA-XRF techniques

E. Kechaoglou, K. A. Agrafioti, G. P. Mastrotheodoros, D. F. Anagnostopoulos and C. Kosmidis*

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Inductively coupled plasma time-of-flight mass spectrometry (ICP-TOFMS) with desolvating sample introduction and He collision gas for high-accuracy determination of Rh, Pd and Pt in automobile catalytic converters

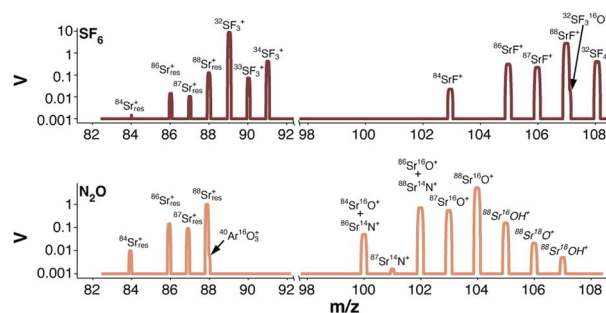
Stanislav Strekopytov, John Entwisle, Sarah Hill and Heidi Goenaga-Infante*



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

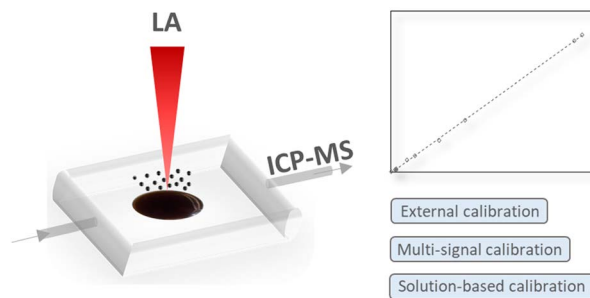
Philippe Télouk and Vincent Balter*



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A comparison of calibration strategies for quantitative laser ablation ICP-mass spectrometry (LA-ICP-MS) analysis of fused catalyst samples

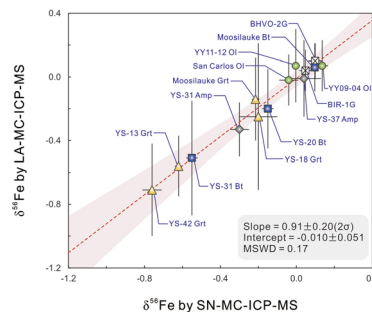
Ana Rua-Ibarz, Thibaut Van Acker, Eduardo Bolea-Fernandez, Marina Bocconcelli and Frank Vanhaecke*



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Non-matrix-matched analysis of Fe isotopes in silicates by laser ablation MC-ICP-MS and potential silicate in-house standards for microbeam Fe isotopic analysis

Lei Xu,* Jin-Hui Yang, Hao Wang, Hui Ye, Lie-Wen Xie, Yue-Heng Yang, Chao Huang and Shi-Tou Wu



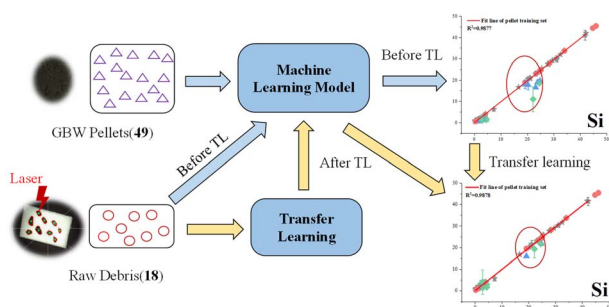
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Potential tourmaline reference materials for microbeam B and Sr isotopic analyses

Qijing Chen, Ri-Jing Wang, Hong-Xia Yu, Guanhong Zhu, Yan-Qiang Zhang, Xiao-Ping Xia, Zhong-Yuan Ren and Le Zhang*



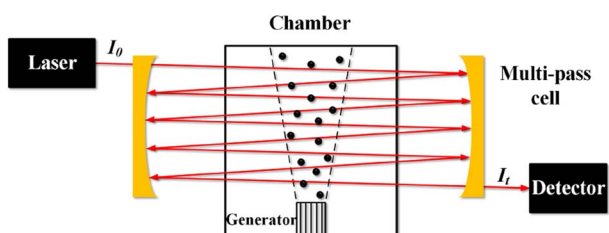
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Rapid quantitative analysis of raw rocks by LIBS coupled with feature-based transfer learning

Yu Rao, Wenxin Ren, Weiheng Kong, Lingwei Zeng, Mengfan Wu, Xu Wang, Jie Wang, Qingwen Fan, Yi Pan, Jiebin Yang* and Yixiang Duan*

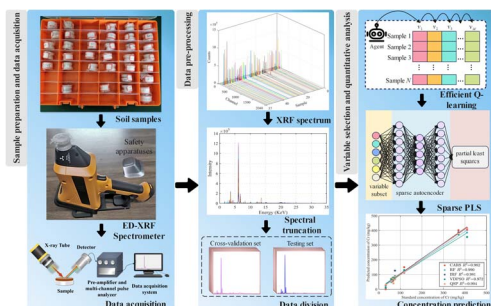
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Highly sensitive spectral measurement of rubidium isotopes using open multi-pass cell in tunable diode laser absorption spectroscopy

Gang Qi, Yin-Bo Huang, Jun Huang, Xing-Ji Lu, Tao Yang and Zhen-Song Cao*

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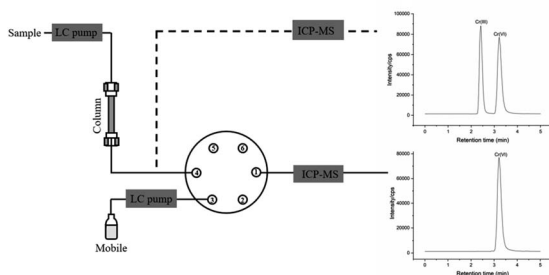


Quantitative analysis of potentially toxic elements in soil by XRF based on efficient reinforcement learning and sparse partial least squares

Shubin Lyu, Fusheng Li,* Wanqi Yang, Qinglun Zhang, Jin Su, Ruqing Zhao and Xin Lu

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In-line matrix elimination for Cr(VI) analysis by LV-LC-ICP-MS



Determination of ultra-trace level Cr(VI) in seawater using large-volume direct injection by LC-ICP-MS with in-line matrix elimination

Zhenzhen Yao, Bingru Li, Zhihong Ma and Beihong Wang*

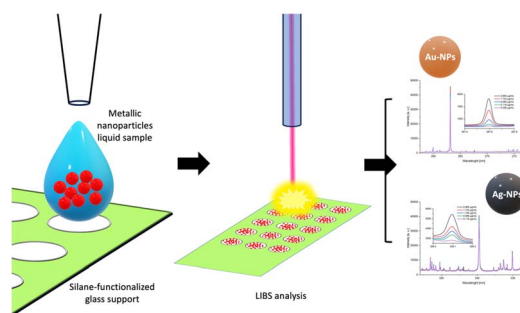


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A chemically functionalized glass support for gold and silver metallic nanoparticle analysis with LIBS

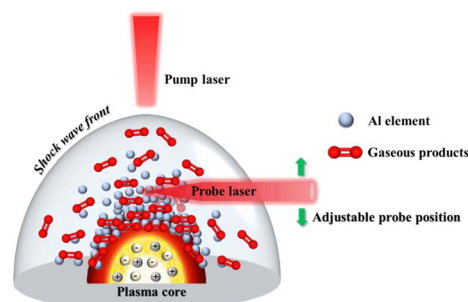
J. Cárdenas-Escudero, V. Gardette, A. Villalonga, A. Sánchez, R. Villalonga,* V. Motto-Ros,* D. Galán-Madruga* and J. O. Cáceres*



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Determination of propellant products by time resolved and spatial distribution LIPS combined with high-speed schlieren imaging

Xinyu Zhang, An Li, Ying Zhang, Yunsong Yin, Xianshuang Wang, Yage He, Jing Lyv, Yuheng Shan, Xiaodong Liu, Wen Yi, Lin Zhong, Yeping Ren, Min Xia* and Ruibin Liu*



CORRECTIONS

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Correction: Optimization of a CE-ICP-MS/MS method for the investigation of liposome–cisplatin nanosystems and their interactions with transferrin

Anna Maria Wróblewska, Jan Samsonowicz-Górski, Ewelina Kamińska, Marcin Drozd and Magdalena Matczuk*

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Correction: On the study of paintings' stratigraphy by fs-LIBS and MA-XRF techniques

E. Kechaoglou, K. A. Agrafioti, G. P. Mastrotheodoros, D. F. Anagnostopoulos and C. Kosmidis*

