

Editorial

Elsevier/Spectrochimica Acta Atomic Spectroscopy Award 2003

This is to announce the 2003 Elsevier/Spectrochimica Acta Award, the annual award honoring the most significant article(s) published in a volume. Elsevier makes this award on behalf of Spectrochimica Acta, Part B, to encourage the publication of top articles in this journal. All papers published during one year are considered for this award and the Editorial Advisory Board and the Spectrochimica Acta Electronica Editorial Team are responsible for the selection. The award consists of a monetary prize of \$1000 together with a presentation certificate.

We have the pleasure to announce the 2003 Award for the articles published in Spectrochimica Acta Part B, Volume 58. The votes of the jury accumulated for a paper describing the usefulness of modeling the process of laser ablation when the laser is used as sampling tool. The work is the result of a collaboration effort between the University of Antwerp (Belgium) and the George Washington University in Washington D.C. (USA). The paper selected for the Award is the following:

Annemie Bogaerts, Zhaoyang Chen, Renaat Gijbels and Akos Vertes

Laser ablation for analytical sampling: what can we learn from modeling?

Spectrochimica Acta Part B 58 (2003) 1867–1893.

The above paper was followed by a group of two papers resulting from a collaboration between the Department of Applied Physics in Eindhoven (The Netherlands) and the Departamento de Fisica of the Universidad de Cordoba in Cordoba (Spain). These papers deal with time resolved diagnostics (temperature and electron number density) measurements in an inductively coupled argon plasma using the power interruption technique and with a discussion of the additional electron loss process occurring at the edge of the plasma. These papers are:

M.J. van de Sande, P. van Eck, A. Sola, A. Gamero, J.J.A.M. van der Mullen

Entrainment of ambient air into a spectrochemical inductively coupled argon plasma.

Spectrochimica Acta Part B 58 (2003) 457–467.

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M.J. van de Sande, P. van Eck, A. Sola, A. Gamero, J.J.A.M. van der Mullen

Electron production and loss processes in a spectrochemical inductively coupled argon plasma.

Spectrochimica Acta Part B 58 (2003) 783–795

As usual, since the introduction of the award, many other papers scored high on the jury's list. For the 2003 volume, this list, in alphabetical order of the first authors, looks as follows:

Jorgen Gustafsson, Nikolai Chekalin and Ove Axner

Improved detectability of wavelength modulation diode laser absorption spectrometry applied to window-equipped graphite furnaces by 4th and 6th harmonic detection.

Spectrochimica Acta Part B 58 (2003) 111–122

Jorgen Gustafsson, Nikolai Chekalin and Ove Axner

Characterization of 2f-, 4f-, and 6f-background signals in wavelength modulation diode laser absorption spectrometry in graphite furnaces.

Spectrochimica Acta Part B 58 (2003) 123–141

Bodo Hattendorf and Detlef Günther

Strategies for method development for an inductively coupled plasma mass spectrometer with bandpass reaction cell. Approaches with different reaction gases for the determination of selenium.

Spectrochimica Acta Part B 58 (2003) 1–13

Glen P. Jackson and Fred L. King

Probing excitation and ionization processes in millisecond-pulsed glow discharges in argon through the addition of nitrogen.

Spectrochimica Acta Part B 58 (2003) 185–209

Glen P. Jackson and Fred L. King

Bulk plasma properties in the pulsed glow discharge.

Spectrochimica Acta Part B 58 (2003) 1417–1433

Scott A. Lehn, Mao Huang, Kelly A. Warner, Gerardo Gamez and Gary M. Hieftje

Spatially resolved ground-state number densities of calcium and strontium ion in an inductively coupled plasma in contact with an inductively coupled plasma mass spectrometry sampling interface.

Spectrochimica Acta Part B 58 (2003) 1647–1662

Scott A. Lehn, Kelly A. Warner, Mao Huang and Gary M. Hieftje

Effect of sample matrix on the fundamental properties of the inductively coupled plasma.

Spectrochimica Acta Part B 58 (2003) 1785–1806

Gerhard Schaldach, Ilya Razilov and Harald Berndt

Optimization of the geometry of a double-path spray chamber for inductively coupled plasma-atomic emission spectrometry by computer simulation and an evolutionary strategy.

Spectrochimica Acta Part B 58 (2003) 1807–1819

Cedomil Vadla, Vlasta Horvatic and Kay Niemax

Radiative transport and collisional transfer of excitation energy in Cs vapors mixed with Ar or He.

Spectrochimica Acta Part B 58 (2003) 1235–1277

Xianzhong Zeng, Samuel S. Mao, Chunyi Liu, Xianglei

Mao, Ralph Greif and Richard E. Russo

Plasma diagnostics during laser ablation in a cavity.

Spectrochimica Acta Part B 58 (2003) 867–877

The majority of the papers considered for the Award address fundamental aspects of the most common atomization/excitation sources used in analytical spectroscopy. Such papers do indeed constitute the fingerprint of the journal, which maintains its characteristic of being the most appropriate forum for these type of articles, in addition to other contributions of more applied nature. The editors would like to reiterate the well-known concept that there could be no new development in the instrumentation if it were not for a better understanding of the underlying fundamental principles of the technique. This is true in general and even more so in spectrochemical analysis.

Nicolò Omenetto

Greet de Loos