

EMEC11

Book of Abstracts

ENVIRONMENTAL CHEMISTRY: CHEMISTRY FOR THE ENVIRONMENT



11th European Meeting on Environmental Chemistry
8-11 December 2010 PORTOROŽ - SLOVENIA

Book of Abstracts



ASSOCIATION OF
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BOOK OF ABSTRACTS

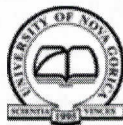
EMEC11

"The 11th European Meeting on Environmental Chemistry"

Portorož, Slovenia

December 8-11, 2010

Organized by:



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APPLICATION OF TIME RESOLVED LASER-INDUCED FLUORESCENCE MEASUREMENTS AND LASER INDUCED BREAKDOWN SPECTROSCOPY FOR ANALYSIS OF ENVIRONMENTAL CONTAMINANTS

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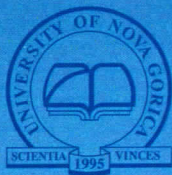
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Aim of this presentation is to show possibilities of use of combined time resolved laser induced fluorescence (TR-LIF) and laser induced breakdown spectroscopy (LIBS) system for analysis of environmental contaminants. The TRLIF/LIBS system is implemented in our laboratory in Belgrade.

A detailed description and some of the preliminary results of our TRLIF/LIBS are given in [1-4]. Shortly, pulsed excitation is provided by a tunable Nd-YAG laser system (Vibrant model 266 made by Opotek, Inc.) with pulse duration of 5.4 ns, pulse repetition rate of 10 Hz and energy per pulse of up to ~350 mJ. This system incorporates the optical parametric oscillator (OPO) that is pumped by the fourth harmonics of the Nd:YAG Brilliant laser at 266 nm. The output of the OPO can be continuously tuned over a spectral range from 320 nm to 475 nm. The laser induced fluorescence in the samples is recorded using streak scope (Hamamatsu model C4334-01) with integrated video streak camera. The fundamental advantage of the streak scope is its two dimensional nature, that is especially important in measuring time-resolved fluorescence spectra. The data is acquired using HPD-TA software.

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