

SAS/NASLIBS Award 2023

The *Society for Applied Spectroscopy* (SAS) and the *North American Society for Laser-Induced Breakdown Spectroscopy* (NASLIBS) presented the SAS/NASLIBS Award 2023 to Johannes Pedarnig, Nikolaos Giannakaris, Anna Haider, Christoph M. Ahamer, Stefan Grünberger, and Stefan Trautner for their paper

Femtosecond Single-Pulse and Orthogonal Double-Pulse Laser-Induced Breakdown Spectroscopy (LIBS): Femtogram Mass Detection and Chemical Imaging with Micrometer Spatial Resolution

published in *Applied Spectroscopy* 76(8) (2022) 926–936.

In this paper the authors showed that tiny samples of only few femtogram mass can be produced by femtosecond laser ablation and detected by optical emission spectroscopy of the laser-induced plasma. Furthermore, they demonstrated that the intensity of atomic and ionic emission lines is increased by double-femtosecond-pulse excitation of plasma.

This Award was presented at the FACSS/SCIX 2023 conference in Sparks, Nevada (USA) in October 2023. The research was part of the FFG funded K project PSSP conducted at the JKU Institute of Applied Physics (A.Univ.-Prof. Dr. Johannes D. Pedarnig) in co-operation with the industrial project partners voestalpine Stahl GmbH and Lenzing AG. The consortium leader of the FFG PSSP project was Recendt GmbH, Linz.



NAS LIBS

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Presented to

**Johannes Pedarnig, Nikolaos Giannakaris,
Anna Haider, Christoph M. Ahamer,
Stefan Grünberger, and Stefan Trautner**

for

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Laser-Induced Breakdown Spectroscopy (LIBS):
Femtogram Mass Detection and Chemical Imaging
with Micrometer Spatial Resolution
Volume 76, Issue 8, Pages 926-936*

October 2023