

LIBS2016 oral presentation program

Speaker, Name, Country	N° of talk	Title
Opening		
M1: Overview & Fundamental, Chair: J. Laserna		
N. Omenetto, USA	PM1	LIBS: A personal viewpoint on its present status and future perspectives
T.E. Itina, France	IM1	Ultra-short double pulse laser ablation of metals: what can we know from numerical hydrodynamics and from molecular dynamics simulations?
A. Bultel, France	OM1	Collisional-radiative modeling of ultrashort laser-induced plasmas on aluminum and tungsten for LIBS measurements
L. Nagli, Israel	OM2	Stimulated emission and lasing in laser-induced plasma plume
P. Liu, China	OM3	Optical emission and mass spectrometric diagnostics of laser induced tungsten plasma
M2: Fundamental & quantitative analysis, Chair: V. Palleschi		
C. Aragón, Spain	IM2	Application of CSigma-LIBS to the analysis of fused glass samples prepared from rocks
U. Panne, Germany	IM3	Chemometric tools for LIBS analysis
A. Semerok, France	OM4	Multi-parametric modeling of solid sample heating by nanosecond laser pulses in application for nano-ablation
P. Kumar, India	OM5	Ratio based algorithm to quantitatively determine elemental composition using CF-LIBS
P. Porizka, Czech Republic	OM6	Utilization of raw echellograms in laser-induced breakdown spectroscopy
B.Y. Xue, China	OM7	Enhancement investigation of underwater collinear DP-LIBS with the second pulse defocused
M3: Quantitative analysis & Data processing, Chair: B. Bousquet		
Ch. Pécheyran, France	IM4	Ultra trace and isotopic analysis by high repetition rate femtosecond laser ablation coupled to ICPMS (HRfsLA-ICPMS)
J.B. Sirven, France	OM8	Round robin tests on laser ablation and quantitative analysis by LIBS
W. Bremser, Germany	OM9	Second LIBS inter-laboratory comparison : analysis of cast iron samples

M. El Rakwe, France	OM10	Overcoming matrix effects in laser-induced breakdown spectroscopy using multivariate analysis of time-resolved spectra
C. Gottlieb, Germany	OM11	Two-dimension evaluation of heterogeneous building materials using cluster algorithm
H.K. Angeyo Kalambuga, Kenya	OM12	Machine learning enabled peak-free LIBS: nuclear forensics applications
M4: LIBS among other techniques, Chair: M.A. Harith		
A. Bengtson, Sweden	PM2	LIBS compared with more conventional plasma OES techniques – a review of applications and analytical performance
Y. Ikeda, Japan	OM13	Measurement of powder-mixture mixing ratio by microwave-enhanced plasma spectroscopy
J.H. Yang, South Korea	OM14	Two-dimension chemical mapping using LIBS and Raman for forensic analysis
MPO: Poster session (90 min), Chair: A. Semerok		
T1: Ultrashort & Molecular, Chair: D. Hahn		
R.E. Russo, USA	PT1	Expanding LIBS capabilities with LAMIS and femtosecond filaments for remote isotope detection
S.S. Harilal, USA	OT1	Role of filament generation conditions on optical emission from filament LIBS
O. Forni, France	OT2	Detection of halogens through molecular lines: the view of ChemCam on Mars
N. Bordel, Espagne	OT3	Quantification of fluorine traces in powder samples using LIBS CaF emission bands: strategies for non-Ca-containing samples
T. Dietz, Germany	OT4	Quantitative analysis of chlorine-contaminated concrete with time-resolved "molecular LIBS"
T2: Molecular, Organic & Bio Med, Chair: A.D. Giacomo		
J. Laserna, Spain	IT1	Chemistry in the laser-induced plasma
N. Melikechi, USA	IT2	From laser-induced breakdown spectra of blood to cancer diagnosis: progress and challenges
I. Gornushkin, Germany	OT5	Modeling and diagnostics of molecules in laser-induced plasmas
P. Veis, Slovak	OT6	Quantitative analysis of wine by surface-assisted LIBS using Sr as internal standard
V. Motto-Ros, France	OT7	LIBS: a future superstar among elemental imaging technologies?

J. Kaiser, Czech Republic	OT8	Laser-induced breakdown spectroscopy and X-ray micro-computed tomography for high-resolution 3D mapping of NPs in biology
T3: Archeology & Cultural heritages, Chair: M. Sabsabi		
V. Palleschi, Italy	IT3	Double-pulse LIBS compositional mapping of cultural heritage
M.A. Harith, Egypt	IT4	Analysis of Egyptian Ushabtis of Ptolemaic period via LIBS and EDX
D. Anglos, Greece	IT5	Viewing heritage through the spectroscopic looking glass
X.S. Bai, France	OT9	Identification of painting materials by the combination of LIBS-LIFRaman spectroscopy in different ns-laser wavelength regimes
F. Ammari, France	OT10	Multi-block analysis coupled to laser-induced breakdown spectroscopy for elemental characterization of geological materials from caves
S.N. Abdulmadjid, Indonesia	OT11	Low pressure μ J picosecond LIBS and its perspective analytical application
T4: Instrumentation, Chair: J.B. Sirven		
M. Sabsabi, Canada	IT6	LIBS Instrumentation: facts, challenges and future
A. Matsumoto, Japan	OT12	Fiber-optic laser-induced breakdown spectroscopy of solid samples in air with long nanosecond pulse
B. Connors, USA	OT13	In-situ applications of next generation handheld LIBS analyzers
J.M. Vadillo, Espagne	OT14	Characterization of size-sorted particulated matter collected on solid substrates by laser-ionization mass spectrometry and laser-induced breakdown spectroscopy
B. Noharet, Sweden	OT15	LIBS for the classification of metal scrap – influence of laser type on ablation crater formation
Tpo: Poster session (165 min), Chair: V. Detalle		
W1: Enhancement & Hydride approaches, Chair: Z. Wang		
A.D. Giacomo, Italy	IW1	Nanoparticle enhanced laser-induced breakdown spectroscopy: is this a new frontier of elemental chemical analysis?
Z. Alwahabi, Australia	IW2	Quantitative detection of elements by microwave-assisted laser-induced breakdown spectroscopy
S. Jarvinen, Finland	OW1	Identification of single microbial particles using electrodynamic balance assisted LIBS and fluorescence spectroscopy
Y. Tian, France	OW2	Classification of wines according to the contained trace elements with surface-assisted LIBS

X.Y. Yang, China	OW3	Sensitive determinations of Cu, Pb, Cd, and Cr elements in aqueous solutions using chemical replacement combined with surface-enhanced laser-induced breakdown spectroscopy
S. Niu, China	OW4	Laser-induced breakdown spectroscopic detection of trace level elements in solutions on a laser-pretreated metallic target
W2: Liquids, Particles, Powders, Chair: T. Sakka		
D. Hahn, USA	IW3	Optimization of plasma-analyte interactions for quantitative LIBS analysis: exploration of hybrid methods
V. Lazic, Italy	IW4	Secondary plasma formation after single pulse laser ablation underwater and its advantages for LIBS
A. Giakoumaki, UK	OW5	Quantitative measurements of liquid samples by LIBS
M. Boudhib, France	OW6	Aerosols analysis via calibration-free laser-induced breakdown spectroscopy in helium
C.S. Nomura, Brazil	OW7	Comparison between fusion and pressed powder pellet methods for Al, Fe, Si and Ti quantitative measurement in bauxite by LIBS
J.M. Jouvard, France	OW8	Correlations between the size and the composition of nanoparticles induced by nanosecond laser ablation of metals in O ₂ /N ₂ gas mixtures at atmospheric pressure
W3: Environment, Chair: U. Panne		
M. Martin, USA	IW5	Correlating laser-induced breakdown spectroscopy and neutron activation analysis for resolving the spatial variation in the ionome of the populus trichocarpa leaf
S.C. Jantzi, USA	IW6	Analytical LIBS as a tool for developing nations - analysis of soils and sediments for watershed remediation efforts
A. Michel, USA	IW7	LIBS as an analytical technique for rapid analysis of ocean sediments
X.H. Ma, China	OW9	A method of correction of Fe lines interference on quantitative analysis of heavy metal in vegetables
J. Guezenoc, France	OW10	LIBS analysis of soils from New Caledonia to evaluate the environmental impact of the extraction of nickel ore
L. Bassel, France	OW11	Laser-induced breakdown spectroscopy for elemental characterization of calcitic alterations on cave walls
W4: Vendor session, Chair: A. Bauer		
Th. Rasmussen, Ibsen Photonics	V1	Ultra-compact OEM spectrometers with accurate and programmable gating control
P. Maine, Quantel	V2	Compact solid-state laser solutions for LIBS
T. Černohorský, AtomTrace	V3	Sci-Trace: gain true control over your LIBS experiments

D. Mory, LTB BERLIN	V4	Automated process analysis – LIBS takes root
R. Berger-Lefébure, IVEA Solution	V5	IVEA: A leader on-site real-time chemical analysis
A.I. Whitehouse, Applied Photonics	V6	LIBS equipment and services offered by Applied Photonics Ltd
WPo: Poster session (160 min), Chair: Ch. Dutouquet		
TH1: Extreme conditions, Chair: R. Russo		
S. Maurice, France	PTH1	First LIBS experience(s) in space
S. Clegg, USA	ITH1	Recalibration of the Mars Science Laboratory ChemCam instrument with an expanded geochemical database
T. Takahashi, Japan	OTH1	Development of methods for quantitative analysis of metal compositions of deep-sea rocks
D. Vogt, Germany	OTH2	Detection of chlorine via atomic and molecular emission in highresolution time-resolved LIBS spectra under martian conditions
S. Schroeder, Germany	OTH3	Investigation of the coupling of a martian atmosphere and its contribution to LIBS spectra
TH2: Geology, Mineralogy & Criminalistics, Chair: A.W. Miziolek		
M. Baudelet, USA	ITH2	Fundamentals and statistics: the great marriage for the LIBS analysis of trace evidence
F. Vidal, Canada	OTH4	Laser-induced plasma spectroscopy for determining the concentration of gold in mineral samples
S. Kaski, Finland	OTH5	Yttrium occurrence in REE-bearing rocks and minerals
F.Z. Dong, Chin	OTH6	The application of laser induced breakdown spectroscopy in geological exploration
J. Klus, Czech Republic	OTH7	Study of mineralization in geological samples by means of LIBS and neural networks
S. Choi, Korea	OTH8	An attempt for forensic fire investigation using LIBS
F1: Nuclear & Energy, Chair: M.Z. Martin		
A.I. Whitehouse, UK	IF1	LIBS for nuclear decommissioning and clean-up
J.B. Sirven, France	IF2	Qualitative and quantitative analysis of materials by LIBS in nuclear environment: how multivariate methods can help

H.B. Ding, China	IF3	Development of LIBS and laser-ablation coupled to TOF mass spectrometry for the application in diagnostics of plasma-facing materials in fusion devices (Tokamak)
I. Wakaida, Japan	OF1	Challenging in LIBS technology for decommissioning of damaged reactor “Fukushima Daiich nuclear power station”
C. Michel, France	OF2	Using LIBS for the analytical support to the proper functioning of vitrification processes of nuclear high level waste
J.F. Onkangi, Kenya	OF3	Direct analysis of fission products in simulate nuclear glass by chemometric LIBS
F2: Industrial applications I, Chair: J.D. Pedarnig		
R. Noll, Germany	IF4	An ongoing journey of exploration - LIBS for industrial applications
T. Fujii, Japan	IF5	Remote laser-induced breakdown spectroscopy using nanosecond and femtosecond lasers
A. Nadeau, Canada	OF4	Autonomous molten metal chemistry using LIBS: a revolution has started in the galvanizing industry
M. Benmansour, France	OF5	In situ quantitative chemical analysis of molten metallurgical grade silicon by Laser Induced Breakdown Spectroscopy
S.C. Yao, China	OF6	Comparison of laser-induced breakdown spectroscopy and spark induced breakdown spectroscopy for measuring unburned carbon in fly ash
S. Eto, Japan	OF7	Remote measurement and quantification of chlorine attached on side wall simulating canister for the dry storage of spent fuel
F3: Industrial applications II, Chair: R. Noll		
Y. Deguchi, Japan	IF6	Development of trace element detection method using laser breakdown -time of flight mass spectrometry
Z. Wang, China	IF7	Precise quantification model of LIBS and its application for coal analysis
S. Tassios, Australia	OF8	Rapid LIBS analysis of liquid MOF solutions
L.X. Sun, China	OF9	Application of LIBS to in situ analysis of molten metal
G. Wilsch, Germany	OF10	State of the art - LIBS for the chemical investigation of concrete
J.M. Li, China	OF11	Analysis of ions doping profiles in Yb-doped fiber preforms using laser-induced breakdown spectroscopy assisted with self-adaptive median filter
Closing		

Type of talks: P: Plenary, I: Invited, O: Oral, V: Vendor