

COLA Poster Session 1 (Monday, September 9, 2019)

Maxim	Shugaev	Atomistic study of acoustic activation of surface processes
Thom	Minnée	Modelling the 3-D hydrodynamic transport of electrons during femtosecond laser ablation
Akira	Higo	Expansion of laser-induced plume after the counter shock wave pass-through the background gas
Keita	Katayama	Effects of counter shock wave on plume expansion dynamics and aggregated structure of nanoparticles during double pulsed-laser-ablation
Aleksei	Zubko	Pressure behavior in metal target due to intensity modulated nanosecond laser action
Tomomasa	Ohkubo	Numerical simulation of Copper Layer Formation with Blue Direct Diode Lasers
Miao	He	Atomistic modeling of short-pulse laser-induced generation of crystal defects in Ni-based single-phase binary solid-solution alloys
Zeming	Sun	Laser-Induced Point Defects in Silicon: Combined Experimental and Computational Investigations
Miao	He	Simulations and Experiments on Laser-Induced Phase Transformation and Generation of Crystal Defects in Silicon
Carlos	Acosta-Zepeda	Nanosecond laser-induced surface changes in Silicon: modeling and applications.

Olivier	Uteza	Ablation of Nickel with single ultrashort laser pulses
Xiaohan	Du	Optimizing machining parameters for laser micro-machining with an ultrafast z-scanner
Tomasz	Tański	Effect analysis of laser surface treatment on structure, wear resistance and hardness of AlMg5 aluminium alloy
Marek	Sroka	Laser surface modification treatment of ENAC51-200 with B4C powder
Akihiro	Hata	Control of plasma confinement layer for improving laser peening effect
Yu-Hsuan	Lin	Optical writing and reading of laser processed spots with various extinction ratios on a polarizing film
Claude	Aguergaray	The effect of vacuum conditions on feature quality and machining efficiency for ultrafast laser micromachining
Hagen	Dittmar	Comparison of two NIR lasers for composite repair preparation by laser ablation and the effect on interlaminar fracture toughness of CFRP
Hiroshi	Ogawa	Photoluminescence and Raman Spectroscopy of Laser Affected Zone in Ultrafast Laser Microprocessing of Polydimethylsiloxane (PDMS)
Eichi	Terasawa	Pulse Duration Dependence of Ablation Threshold for Fused Silica in a Visible Femtosecond Regime
Ruoheng	Zhang	Refractive Index Modification of Silicon by Femtosecond Laser Pulse
Daisuke	Baba	Experimental Investigation of Ablation by Femtosecond Laser Processing on Poly-Oxymethylene

Junichi	Fujimoto	The micro via processing for semiconductor package by DUV excimer lasers
Riccardo	Geremia	Strategies for ultrafast laser patterning of multilayer thin film stacks for flexible electronics applications
Jan	Winter	Influence of pulse duration on single pulse laser ablation in bulk metals: Contribution of spallation and phase explosion to laser material removal
Ranran	Fang	Superwicking material for cooling applications produced by femtosecond laser
Stephan	Graef	Large-area fabrication of low- and high-spatial-frequency laser-induced periodic surface structures on carbon fibers
Fumitaka	Nigo	Reflectance and Crystallinity of Silicon Solar Cells with LIPSS Produced by XeCl Excimer Laser
Sooraj	Shiby	Influence of laser pulse duration on microscribing of copper thin film cladded on to polymer substrate
Norbert	Ackerl	Evolution of Microstructures on Stainless Steel induced by ultra-short pulsed Laser Ablation
Y. Esther Blesso	Vidhya	Influence of nanosecond laser texturing on the reflectivity and wettability of Cu and Al films
Bosu	Jeong	Fast fabrication of femtosecond laser textured superhydrophobic surfaces on silicon wafer
Xuan	Wang	Laser ablation and structuring of CdZnTe with femtosecond laser pulses
Xuan	Wang	Fs laser induced periodic surface structures on silicon at high pulse repetition rate

Manikandan	Esakkimuthu	Microstructuring Niobium Nitride Superconductor using Pulsed Laser Ablation
Shenping	Li	Refractive index-modified features in high-transmission glass written by 355nm nanosecond pulsed laser
Donyau	Chiang	Ablation of metal Mo film by laser direct and indirect hits
Tetsuo	Sakai	Laser welding of highly-reflective metal with absorbance-enhanced surface structure fabricated using picosecond laser
Frank	Müller	Femtosecond laser-induced scratch ablation - An efficient new method to evaluate the self-healing behavior of supramolecular polymers
Mitsuhiro	Kusaba	Polyimide Films Ablated by XeCl Excimer Laser
Wen-Tse	Hsiao	Pulsed UV laser surface modification of indium tin oxide films applied for pH concentration evaluation
Shih-Feng	Tseng	Ultraviolet laser patterning of AgNWs/graphene hybrid thin films for electrode structures
Kazuyuki	Uno	Polymer resin drilling by CO <sub>2</sub> laser with controlled laser pulse waveform
Ryotaro	Oka	Effects of laser peening on aluminum alloy
Yu-Hsuan	Lin	Anti-photobleaching analysis of light absorbent foil by ultraviolet laser direct-exposing
Hsin-Yi	Tsai	The Relationship between Ingredient and Bonding Strength during Eutectic Effect Using Continuous 515 nm Green Laser
Marek	Roszak	The influence study of laser gas nitriding and alloying using titanium powder on the design of the surface layer

		of nitriding steel and its structure and mechanical properties
Yasutaka	Hanada	Microfabrication of UV-transparent fluoropolymer using high-repetition femtosecond oscillator
Takahiro	Hata	ure copper layer formation on Copper based alloy substrate with 100W class multi-laser cladding system
Yuta	Mizuguchi	Effect of spatter on Ti plate fabricated by selective laser melting in vacuum.
Yu-Chen	Hsieh	Hybrid laser patterning and modification technology of indium tin oxide conductive films applied for alcohol concentration sensing
Soongeun	Kwon	Fabrication of Laser-Induced Graphene Electrodes on Cotton Fabric Substrates for Wearable Electrodes
Wen-Tse	Hsiao	Laser surface modification of additive manufactured Ti-6Al-4V alloy plate using a pulsed ultraviolet laser
Sima	Rekštytė	3D optical structuring of acrylated epoxidized soybean oil based resin
Jernej	Lalos	Time-evolution of laser-ablation-drilled cavities and their anomalies due to the glancing light reflections

## COLA Poster Session 2 (Tuesday, September 10, 2019)

Ralph	Delmdahl	High Depth Control Laser System for Selective Wide Area Processing
Tatsunori	Shibuya	Ablation Threshold and Crater Morphology of SiO <sub>2</sub> Glass in Extreme Ultraviolet Femtosecond Pulses
Andrei	Rode	Developing optical funnel for guiding jet of particles into a focus of X-ray Free-Electron Laser
Hidehiko	Yashiro	Evaluation of abundance ratio of hydroxyapatite in CaP coating on zirconia by pulsed laser deposition
Mihaela	Filipescu	Active membranes based on oxide nanoparticles fabricated by MAPLE for sensor applications
Devanshi	Bhardwaj	Fabrication of smooth thin films of VO <sub>2</sub> grown by Pulsed Laser Deposition
Emmanuel	Paneerselvam	Pulsed Laser Deposition and Doping of SiC Thin Films on MgO Substrates
Yucheng	Wang	Confined Polymer Crystallization in Vapor-Deposited PE/PMMA Polymer Blend Films
Devanshi	Bhardwaj	Effect of partial pressure of oxygen on phase stabilization of vanadium oxide using reactive pulsed laser deposition
Wiktor	Matysiak	Comparison of optical properties of two types of two-dimension Bi <sub>2</sub> O <sub>3</sub> nanostructures - solid layer and thin fibrous mats obtained via spin-coating and electrospinning technique

Jaroslav	Bruncko	A low temperature limit for growth of ZnO nanowires by using of laser ablation processes
Mihaela	Filipescu	Coatings with high damage threshold prepared by laser ablation
Valentin	Ion	Properties of LaFeO <sub>3</sub> - BiFeO <sub>3</sub> heterostructures obtained by pulsed laser deposition techniques
Valentin	Ion	Properties of PVDF – BCTZ films obtained by MAPLE and PLD deposition techniques
Peter	Korir	Influence of background gas atmosphere on the structural and photoluminescence properties of pulsed laser deposited (Y-Gd) <sub>3</sub> Al <sub>5</sub> O <sub>12</sub> :Ce <sup>3+</sup> thin films
Peter	Korir	Investigation on the effect of argon pressure on the structural and luminescence properties of (Y-Gd) <sub>3</sub> Al <sub>5</sub> O <sub>12</sub> :Ce <sup>3+</sup> thin films prepared by pulsed laser deposition
Mehmet Alper	Sahiner	Au and Ag Nanoparticle Effects on the Electrical Properties of Pulsed Laser Deposited CdTe/CdS Photovoltaic Thin Films
Jan	Lancok	In-situ UV laser annealing of metal oxides thin films fabricated by Pulsed Laser Deposition
Jiri	Bulir	Monitoring of growth process of ZrN layer during Pulsed Laser Deposition
Luis	Escobar-Alarcon	Thin films prepared by an hybrid deposition configuration: two laser ablation plasmas with one sputtering plasma
Anna Paola	Caricato	Diamond-Like carbon by PLD as resistive material for Fast Timing Micro-Pattern Gas Detectors: control on uniformity, structural and electrical properties

Anna Paola	Caricato	10B-based neutron conversion films grown by pulsed laser deposition
Takashi	Araki	Ag-nanoparticle-included TiO <sub>2</sub> nanostructures formed by pulsed laser ablation applied to visible-light-operating photocatalysts
Manisha	Gupta	Pulsed Laser Deposition of Novel Perovskite Thin Films for Advanced Electrochemical Systems
Kazuki	Koda	Ambient-gas dependence of microstructure formed on nickel by backward pulse laser deposition
Andrius	Žemaitis	Highly-efficient ultrashort pulse laser ablation by bursts of pulses
Aiko	Narazaki	Study on Nonthermal-Thermal Processing Boundary in Drilling of Ceramics using Various-Parameters-Controlled Ultrashort Pulse Laser System
Steffen	Weißmantel	Ultrashort pulse laser ablation of metals and silicon: effects of pulse duration and wavelength
Jaka	Mur	Near-THz bursts of pulses for laser micromachining applications
Daisuke	Satoh	Femtosecond pump-probe transient reflection and transmission measurements near the ablation threshold
Zhibin	Lin	Multiphase Simulation of Ultrafast Laser Processing in Copper with ~GHz Bursts for Industrial Micromachining Applications
Masaki	Hashida	Suppressed delay time of femtosecond laser ablation for titanium irradiated by two color double pulse beam
Joel	Schrauben	Laser Seeding for the Preparation of Conductive Features on Glass Substrates



Saurabh	Awasthi	Femtosecond laser processing of muscovite mica
Koichi	Sasaki	Nitriding of SiC by Irradiation of Laser Pulses in Liquid Nitrogen
Masahito	Tanaka	Mapping of Linear Birefringence Spectra Induced by Short Pulse Laser Irradiation in Fused Silica and Poly-lactic Acid
Marcin	Bilewicz	Effect of rotation movement during solidifying state on microstructure of polymer composites
Kenji	Kawamoto	Possible origin of large mid-infrared absorption band emerged by pulsed laser melting of heavily sulfur implanted-layer
Yuki	Furukawa	Change of Optical Properties Causing Suppression of Ablation for Titanium by Pre-irradiation of Femtosecond Laser
Felipe	González	XPS, XRD and Raman Spectroscopy of thin films obtained by Laser Ablation from graphite without catalyst
Takashi	Takahashi	Energy flow measurement during pulse laser ablation enabled by high-precision threshold determination
Jae Yong	Oh	Effect of spatial intensity distribution of laser on interaction between blue laser and phosphor for laser lighting
Soosung	Kim	Applications of high energy density electron and laser beam materials processing for nuclear fuel assembly manufacturing
Jaka	Mur	Pulse length and shape comparison for two-photon excited theranostics
Kermit	Murray	Laser Ablation Sampling for Biomolecule Analysis

Michael	Ziskind	Micro-Sampling of Biological Tissue by Substrate-Mediated Laser Ablation: Toward Spatially-Resolved Proteomics at $\mu\text{m}$ Scale
Hwi-Chan	Ham	Comparison of laser ablation and spark discharge in water for dosage controlled drug delivery
Yury	Ryabchikov	Perspectives of Ultra-Pure Laser-Synthesized Silicon-Based Nanoparticles for Biomedical Applications
Won Seok	Chang	Liquid Metal Transfer Using Pulsed Laser Beam
Alan	Godfrey	Multiphoton-Induced Blister Formation in Layered Polymer-Metal Films towards High-Resolution Laser-Induced Forward Transfer
Kuo-Cheng	Huang	Interface Properties of $\mu\text{LED}$ between Sapphire and GaN lifted-off by 257 nm Laser System
Sorin	Vizireanu	Laser transfer of functionalized carbon nanowalls for sensing applications
Mihaela	Filipescu	Laser induced forward transfer of nanocomposite materials

COLA Poster Session 3 (Thursday, September 12, 2019)

Wen	Zhang	Determination of chlorine with radical emission using laser-induced breakdown spectroscopy coupled with partial least square regression
Masabumi	Miyabe	Development of laser ablation absorption spectroscopy for nuclear fuel materials
Ashraf	Eldakrouri	Analysis of inorganic elements in Banana Peels using LIBS
Huaming	Hou	Molecular Emissions from fs-laser Ablated Plasmas and fs-laser Launched Filaments
Nagore	Grijalba	Renal localization and quantification of uranium in rodent exposed to uranyl nitrate by LA-ICP-MS
Valerie	Holler	Development of a SIMS compatible internal standard spiked resin for quantitative bio-imaging of biological samples by laser ablation ICP-MS: an application to uranium contaminated kidney samples
Alexandre	Legrand	Tuning of LA-ICP-MS system parameters for quality elemental imaging: application to uranium localisation in renal tissue
Dayana	Oropeza	Spatio-temporal separations in plasmas produced with ultrafast weakly ionized plasma channels
Youn-Joong	Jeong	Strontium isotopic composition of (Bio)apatite by 193nm ArF laser ablation with multi-collector ICPMS
Hamza	Qayyum	Radiofrequency pulse generation by nanosecond pulsed laser irradiation of aluminum: the effect of laser fluence

Hongbin	Ding	Dynamic plasma sheath of laser-ablated Tungsten plasma
Jun-Ho	Yang	Double pulsed laser ablation for simultaneous molecular and signal intensified elemental analysis in low pressure conditions
Jose	Chirinos	Remote Sensing Femtosecond Filament Laser Ablation Molecular Isotopic Analysis (F2-LAMIS)
Jose	Chirinos	Ultrafast Laser Induced Plasma Spectroscopy with Optical Vortex Beams
Andreas	Limbeck	Stoichiometry determination of Gd doped CeO <sub>2</sub> thin films using online-LASIL and ICP-OES detection
Jaehun	Jung	A potential for spark-induced as opposed to laser-induced ablation for compositional analysis of eight rock samples
Hemalaxmi	Rajavelu	Time dependent characteristics of atomic and molecular carbon emissions from coal using LIBS in different atmosphere
Jonah	Duran	Calibration of Laser Ablation Mass Spectrometry Results for Tungsten Deposits on Tokamak Collector Probes
Yuan	Lu	Laser-induced breakdown spectroscopy for ocean applications
Dominik	Wild	Simultaneous LIBS- and Raman spectroscopy using laser fluence sweeping - a new method to characterize energetic materials
Natalia	Martino	Laser Induced Breakdown Spectroscopy: Assessment for Sensor Based Sorting in Mining
Jonathan	Merten	Comparison of vaporized neutral mass and signal in LA-ICP spectrometry

Patrick	Philipp	Overcoming sensitivity limitations in ultra-low energy sputtering by laser irradiation
George	Chan	Laser Ablation Molecular Isotopic Spectrometry (LAMIS) -- Current Status
George	Chan	Uranium Isotopic Analysis with Laser Plasmas
Jihoon	Ryu	Towards understanding the aging characteristics of metalized fuels by detecting molecular emission of metal-oxygen bonds during laser ablation process
Ran	Hai	Double pulse laser-induced breakdown spectroscopic diagnosis of plasma facing materials in Tokamak
Sho	Kanuma	Ion Extraction from SrTiO <sub>3</sub> Ablation Plumes Using Electrode
Xiaocheng	Zhang	Influence of plasma shield on fractionation effect in nanosecond laser ablation inductively coupled plasma mass spectrometry
Jiuling	Meng	Matrix matched calibration of element contents in silicate glass via nanosecond laser ablation inductively coupled plasma mass spectrometry
Jhanis	Gonzalez	Improvement in analytical performance of Laser Ablation-Inductively Coupled Optical Emission Spectroscopy (LA-ICP-OES) using the correlation with emission from the Laser-Induced Breakdown Spectroscopy (LIBS)
Yanbei	Zhu	ABF-based Solid Sample Transformation for Quantitative Elemental Analysis by LIBS and LA-ICP-MS
Ye	Tian	Laser focusing geometry effects on underwater single- and double-pulse laser-induced breakdown spectroscopy
Meirong	Dong	Study on Characteristics of Combustion Process of Solid Fuel Particles by Laser Ignition

Thomas	Winkler	Bringing nonlinear stimulated emission to the infrared: From sapphire and fused silica to perovskites
Lebogang	Kotsedi	Zinc Surface Modification by Femtosecond Laser Studied using Rutherford Backscattering Spectrometry
Batikan	Koroglu	Laser Diagnostics of Uranium Trioxide Nanoparticles Synthesized by an Inductively Coupled Plasma
Cristian	Focsa	An original laser-based method to determine adsorption energies on carbonaceous surfaces
Tariq	Alharby	Influence of Crater Depth on Plasma Temperature and Electron Density after a Series of Laser Pulses with a Constant Fluence
Luciano	Velardi	Hydrogenation of Al targets to increase the proton beam emission by excimer laser
Tao	Lǔ	Dynamic evolution of shock wave induced by nanosecond laser ablation of fused quartz glass
Sonny	Ly	Physics and Applications of Confined Laser Ablation
Matej	Senegačnik	Observation of cavitation bubble inner dynamics induced by pulsed laser ablation in liquids
Yury	Ryabchikov	Pulsed Laser Ablation in Liquids Synthesis, Characterisation and Application of Gold-Silicon Nanocomposites
Peter	Gregorcic	Energy-conversion efficiency in ablative laser propulsion induced by nanosecond laser pulses
Rie	Tanabe- Yamagishi	Observation of photoluminescence from YVO <sub>4</sub> :Eu <sup>3+</sup> in laser ablation in liquid

	Tahir	Novel insight on the potentialities of ligand-free pulsed laser ablation of a gold target in water: synthesis of biocompatible functional carbonyl nanostructures
Seung Jun	Lee	A novel plasmonic ZnO/Au/g-C <sub>3</sub> N <sub>4</sub> nanocomposite for environmental applications
Juhyeon	Park	ZnO Supported Au/Pd Bimetallic Nanocomposites for Plasmon Improved Photocatalytic Activity under Visible Light Irradiation
Seung Heon	Lee	Simple Synthesis of Gold Nanoparticles by Pulse Laser Ablation (PLA) in Different Solvents for Catalyst and Resistance in Acid
Jun'ichi	Kanasaki	Optical control of structural transformation to form nano-scaled phases including sp <sup>3</sup> -like interlayer bonds in graphite