COLA 2026

International Conference on Laser Ablation

POSTER PRESENTATIONS

No.	Day	St.	Title	Presenter	Country
P1	Mo		Compositional control in pulsed laser deposition of complex oxides	Nick Shepelin	Switzerland
P2	Tu		TiO2: Bi, Au thin films prepared by a three laser ablation plasmas configuration.	Emmanuel Haro Poniatowski	México
P3	Th		High Entropy Alloy Microwave Absorbers Produced by Pulsed Laser Deposition	Jan Lancok	Czech Republic
P4	Mo		Fiber guided ultrashort Pulsed Laser Deposition of Cu thin films for sensing applications	Jaime Cuartero	Spain
P5	Tu		Pulsed Laser Deposition and Laser Annealing for Fabrication of Luminescent Gas Sensors	Michal Novotny	Czech Republic
P7	Mo		Nanostructured WO_3 layer as an interfacial modifier for transparent electrodes: enhancing wettability and optical properties for OPVs	Maria Dinescu	Romania
P8	Tu		Oxynitride Thin Films for Solar Water Splitting Applications	Khatereh Roohi	Switzerland
P9	Th		Simultaneous pulse compression and contrast enhancement in Herriot-type multipass cells	Valentina Shumakova	Germany
P10	Mo		Versatile Laser Source: From Femtoseconds to Nanoseconds	Tadas Bartulevicius	Lithuania
P12	Th		Spatial and temporal beam shaping in laser-ablation synthesis of nanoparticles in liquids	Rémi Bérard	Czech Republic
P13	Mo	S	Implementation of Temporally Coherent and Spatially Incoherent Special Optical Beams for Imaging through Scattering Media Applications	Francis Gracy Arockiaraj	Spain
P14	Tu	S	Temporal beam shaping for enhancing efficiency during laser ablation of FeNi in water	Ramon Auer	Germany
P15	Th	S	Fabrication of YAG: Yb3+, Er3+ 3D microstructures by combining laser lithography and calcination	Robertas Virkėtis	Lithuania
P16	Mo		Optimal geometries of nonlinear optical interactions in crystalline materials	Marian Kyryk	Ukraine
P17	Tu		Dispersion Mapping of Photonic Periodic Structures using White-Light Reflection Fourier 4f Systems	Kun-Jie Zeng	Taiwan
P18	Th		Near-field Enhanced Ultrafast Bessel-beam Laser-cutting: Glass Cut with Nanometer Roughness	Rajeev Dwivedi	France
P20	Tu		Bessel beam assisted selective laser etching of high aspect ratio vertical channels in fused silica	Valdemar Stankevič	Lithuania
P21	Th		Polarization- and crystallographic orientation-dependent internal laser processing in sapphire with picosecond fiber laser pulses	Daisuke Nakamura	Japan

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P22	Mo	S	Toward deterministic type I volume phase modifications writing in fused silica	Eimantas Dermauskas	Lithuania
P23	Tu	S	Hybrid laser processing: Acceleration by multi-scale ultrashort pulsed laser fabrication of high precision microfluidic structures	Dominik Mücke	Germany
P25	Mo	S	Probing ultrafast energy transfer in glasses using mid-infrared spectroscopy of anharmonic vibrations	Laureline Roffi	France
P26	Tu	S	Antireflective and antifogging effects on industrial glasses by direct femtosecond laser processing	Michał Ćwikła	Poland
P27	Th		Femtosecond laser ablation of fused silica for the fabrication of optical components	Laimis Zubauskas	Lithuania
P28	Mo		Hemocompatibility analysis of laser-structured soda-lime glass for biotechnology and medical technology applications	Daniel Franz	Germany
P29	Tu		Pushing the limits of MHz bursts: highly efficient ablation and crackless drilling of Si and 4H-SiC	Michał Ćwikła	Poland
P31	Mo		In situ evaluation of 3D microstructures in fused silica channels by photoluminescence mapping	Sima Rekštytė Paipulienė	Lithuania
P32	Tu		Antibacterial Effect of Laser Induced Periodic Nanostructures on Synthetic Quartz surface	Reo Yoshida	Japan
P33	Th		Characterization of single-shot modifications in glass formed via self-focusing under laser burst irradiation	Miglė Mackevičiūtė	Lithuania
P34	Mo		Micro-welding of non-optically contacted glass plates using burst USP laser: effect of pulse duration	Edgaras Markauskas	Lithuania
P35	Tu		Femtosecond Ablation of colloidally colored glass	Darius Gailevicius	Lithuania
P37	Mo		Laser Activation of Screen-Printed Gold Electrodes for Electrochemical Sensors	Francesco Toschi	Italy
P40	Mo		High-Resolution Formation of Copper Micro-tracks via SSAIL using Axicon-Generated Bessel Beam: Mechanism and Submicron Precision	Modestas Sadauskas	Lithuania
P41	Tu		Laser-induced fabrication of antibacterial copper microstructures using CuO nano-ink	Takayuki Tamaki	Japan
P42	Th	S	3D printing of strontium aluminate microstructures	Artur Harnik	Lithuania
P43	Mo	S	Bubble generation during laser micro-printing	Janko Tuta	Slovenia
P44	Tu	S	Selective laser-induced metallization of PVDF for flexible mechanical and RF energy harvesting devices	Šarūnas Mickus	Lithuania
P45	Th		Laser-Induced Crystallization of a-Si in TOPCon: Raman and Electrical Assessment	Carlos Molpeceres	Spain
P46	Mo		Laser-induced graphitization of polyphenylene sulfide by femtosecond laser pulse irradiation	Makoto Makibuchi	Japan
P47	Tu	S	Laser-induced graphene-Kevlar fabrication by IR picosecond laser irradiation	David Bolanos	Lithuania
P48	Th	S	High-quality fs-LIPSSs formed by tilted interference of square flattop femtosecond laser pulses	Takemasa Sumimoto	Japan

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P49	Mo	S	Laser induced Periodic Structures on Polyimide Surface in Water Aiming to Antibacterial Property	Kotaro Shimodaira	Japan
P50	Tu	S	Ultrafast laser-induced periodic surface structures on copper for large area plasmon enhanced photocatalysis	Julien Henry	France
P51	Th	S	Laser treatment of hybrid Ti-Au-Ag thin films and investigation of their optical properties	Kasparas Okleiteris	Lithuania
P52	Mo	S	Low Spatial Frequency Surface Feature Formation during Femtosecond Laser Deep Engraving: Origins and Mechanisms	Evaldas Kažukauskas	Lithuania
P53	Tu		Investigation of Thickness-Dependent High-Spatial-Frequency LIPSS Formation in Molybdenum Thin Films Using UV Femtosecond Laser Irradiation	George Tsibidis	Greece
P54	Th		Monitoring of fs-laser-induced periodic surface structure formation on glass by using structural birefringence	Rinka Hatakeyama	Japan
P55	Mo		Influence of titanium layer characteristics on morphology and regularity of high spatial frequency laser-induced periodic surface structures	Heike Voss	Germany
P57	Th		Submicrometer-Scale LIPSS Formation Induced by Terahertz Free-Electron Laser Irradiation	Makoto Nakajima	Japan
P58	Mo		Multimodal Investigation of 1D and 2D LIPSS on InP: Influence of High-Vacuum Environments on Structural Homogeneity and Spectral Selectivity	Stefano Orlando	Italy
P59	Tu		Pulse-by-pulse dynamics of surface morphology at angstrom- level precision	Shuntaro Tani	Japan
P60	Th	S	Assessment of LIPSS regularity parameters in metals and semiconductors using computational analysis tool ReguΛarity	Patricija Strumilaitė	Lithuania
P61	Mo		Laser-induced patterning of plasmonic metasurfaces for scalable optical applications	Evaldas Stankevicius	Lithuania
P62	Tu		Laser interference patterning of silver nanocomposite films for plasmonic coloring	Jan Siegel	Spain
P63	Th	S	Plasmonic excitation management in symmetric 2D metallic gratings produced with direct laser writing	Kernius Vilkevičius	Lithuania
P64	Mo		Optical Characterization and Simulation-Guided Analysis of DLW-Fabricated Plasmonic Arrays for 2D-Material Integration	Chiao-Chih Lin	Taiwan
P65	Tu	S	Direct laser writing of periodic plasmonic structures on gold, silver, and copper films	Rodrigas Liudvinavičius	Lithuania
P66	Th	S	Surface Lattice Resonance Engineering via Plasmonic Nanoparticle Self-assembly and Laser Treatment	Gvidas Klyvis	Lithuania
P67	Mo	S	Laser-induced thermal dewetting of Ti–Au thin films for plasmonic color formation	Vita Petrikaitė	Lithuania
P68	Tu		Morphology and plasmonic properties of laser-induced structures in Ag–Au alloy thin films	Marijus Mozdeikis	Lithuania
P69	Th	S	Controlling nanoscale surface morphology in laser-machined microgrooves via burst-mode femtosecond laser processing	Mian Monib ur Rehman	Belgium

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P70	Mo	S	Localized electric field enhancement mediated melt-dynamics enables creation of diverse 2D nanostructures by GHz burst mode femtosecond laser processing	Shota Kawabata	Japan
P71	Tu		Heat accumulation and melt-ejection dynamics in GHz burst femtosecond laser ablation of silicon	Ashkan Momeni Bidzard	Japan
P73	Mo		Kerf Flank Topography during USP Laser Cutting in Liquids Using GHz Bursts	Jan Marx	Germany
P74	Tu	S	Through glass via drilling using ultrashort laser bursts	Aleksandras Kondratas	Lithuania
P75	Th	S	Transient Optical Changes Govern Ultrafast Energy Deposition in Bulk Gold	Tobias Held	Germany
P76	Mo		Surface polishing by ultrafast laser bursts	Andrius Žemaitis	Lithuania
P77	Tu		Nano/microstructuring Germanium with Trains of Femtosecond Laser Pulses	Patrick O'Keeffe	Italy
P78	Th	S	Ablation efficiency and hole formation process in MHz burst processing of Silicon (Si)	Peter Gregorčič	Slovenia
P80	Tu	S	3D laser percussion drilling of metal foils using a novel ultrashort pulsed laser robotic system	Daniel Franz	Germany
P81	Th	S	Development of a new drilling probe for deep drilling and high precision structural timber engineering	Lars Wenning	Germany
P83	Tu		Surface texturing and localized full-thickness oxidation of Tantalum nano-film	Lina Grineviciute	Lithuania
P84	Th		Enhancing Ceramic Joining through Laser Texturing: Mechanisms of Thermodynamic and Mechanical Adhesion	Iñigo Ramon-Conde	Spain
P85	Mo		Laser surface texturing to improve the tribological performance in the automative sector	Sara María Vidal	Spain
P86	Tu		DoE to optimize texturization by a nanosecond fibre laser for friction reduction in injection moulding.	Rodrigo Santos	Portugal
P87	Th		Multifunctional Femtosecond Laser Structuring of Polyimide: From Conductive Patterns to SERS-Active Surfaces	Vygantas Mizeikis	Japan
P88	Mo		Investigation of the Role of Si Thin Films in Controlling Ultrafast Laser-Induced Nanostructuring in Si/SiO_2 Complexes	YI WANG	Greece
P89	Tu		Miniaturization of nanodot structures formed on the surface of Si solar cells using ultraviolet Nd:YAG laser pulses	Mitsuhiro Kusaba	Japan
P90	Th	S	Femtosecond laser patterning for P1, P2 and P3 process in OPV cell R2R manufacturing line	Donatas Černikauskas	Lithuania
P91	Mo	S	Complex-patterned periodic nanostructuring by steered photonic nanojets for large-area material functionalization	Mania Majumder	France
P93	Th		Study on Laminar Waterjet Behavior under Various Process Parameters for Waterjet-Guided Laser Processing	Dohyun Kim	Republic of Korea

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P94	Mo	S	Femtosecond laser annealing for crystallization and nanostructuration of thermochromic vanadium dioxide thin films from metallic or amorphous precursors	Bassma Jmyi	France
P95	Tu	S	Femtosecond Laser 2.5D Micromachining of Diamond Fresnel Lenses for Enhanced Optical Coupling in Quantum Sensors	Luis Omeñaca	Spain
P96	Th		On the laser-assisted manipulation and functionalization of 2D materials	Nadezhda Bulgakova	Czech Republic
P98	Tu		Continuous-Wave Blue Laser Doping in Si Thin Films using an Alumina Sol Coating	Hidetomo Takahashi	Japan
P99	Th		AI-Driven Beamforming for RIS-Assisted Terahertz UM-MIMO Systems	Marian Kyryk	Ukraine
P100	Mo		Enhancing electron acceleration in staged plasma nozzles via structured ultrashort laser pulse sequences	Mehdi Abedi-Varaki	Lithuania
P101	Tu		Influence of non-equilibrium phonon population on melting of laser-excited metals	Lukas Jonda	Germany
P102	Th		Defect Modulation in Two-Dimensional Semiconductors for Advanced SERS Sensing	Luisa D'Urso	Italy
P103	Mo		Laser-Induced Forward Transfer Assisted Micro-Welding for Precision Joining of Transparent Materials	Anurup Datta	India
P104	Tu		Metal microdroplet ejection by optical vortex pulse irradiation	Kotaro Tokuda	Japan
P105	Th		High-Resolution LDI-MS Characterization of Debromination Processes in Irradiated Brominated Flame Retardants-Containing Polymers	Cristian Focsa	France
P106	Mo		Seed-Mediated Growth of Chiral Fe@Au Nanostructures from Ligand-Free LAL Nanoparticles	Rafael Omar Torres Mendieta	Italy
P107	Tu		Mechanical antibiotic and antiviral nanomaterials synthesized by laser ablation methods	Sravan Sangeeth Surendran	France
P108	Th		Impacts of chemical reactions on the properties of nanomaterials produced by laser ablation in liquid	Katharine Tibbetts	United States
P110	Tu		Optical Data Encoding Using Direct Laser Interference Patterning	Bogdan Voisiat	Germany
P111	Th	S	Laser direct writing for next-generation acoustic holography	Jordi Torres-Durall	Spain
P112	Mo		Fabrication of Riblet Structures via Direct Laser Writing for Enhanced Hydrodynamic Efficiency in Pipe Flow	Andreas Gruner	Germany
P113	Tu		Metamaterial structures: numerical simulation and fabrication using femtosecond laser direct writing	Justas Andrijauskas	Lithuania
P114	Th	S	Two-photon polymerization with mode-locked diode lasers at high processing speeds	Felix Behlau	Germany
P115	Mo		Metaoptics fabrication strategies with Spatial Light Modulators through Two Photon Polymerization	Jaime Cuartero	Spain
P116	Tu	S	Two-Photon Grayscale Lithography for Large Area Surface Structuring	Ioanna-Angeliki Petsi	Lithuania

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P117	Th		Nonlinearity matters in light-matter interaction: multi-photon 3D lithography	Mangirdas Malinauskas	Greece
P118	Mo	S	From Additive to Subtractive: Fabrication of Ultra-Durable SiOC 3D Structures via Laser Processing	Greta Merkininkaitė	Lithuania
P119	Tu	S	Femtosecond laser ablation and polishing of silicon carbide wafers	Dainius Ratkus	Lithuania
P121	Mo	S	Enhancing IOL polymer manufacturing via pulsed femtosecond laser fabrication	Arnas Vyšniauskas	Lithuania
P122	Tu		High-Precision Deep-UV Femtosecond Laser Ablation of Dielectrics for Rapid DOE Fabrication	Domas Paipulas	Lithuania
P123	Th	S	Ablation Threshold of Ti:sapphire Dependence on Titanium Concentration	Takayasu Nishimoto	Japan
P124	Mo		Ablation and irreversible material changes of single-crystalline silicon irradiated with ultrashort pulsed laser radiation	Andy Engel	Germany
P125	Tu		Femtosecond IR Laser Ablation of Transition-Metal Oxide Thin Films	David Canteli	Spain
P126	Th		Ultrafast laser-induced blister formation in Ti films: influence of film thickness and pulse duration	Jijil JJ Nivas	Czech Republic
P127	Mo		Valley Photonic Crystal Ablation in Silicon for Terahertz Photonics	Gabrielius Kontenis	Lithuania
P128	Tu	S	Comparative study of ultrashort pulsed IR and UV laser structuring of GaAs	Dominik Mücke	Germany
P129	Th	S	Gentle and strong ablation explained by time-resolved imaging interferometry	Markus Olbrich	Germany
P130	Mo		Investigating the dynamics of laser-matter interaction of monocrystalline silicon upon ultrashort pulsed laser irradiation	Andy Engel	Germany
P131	Tu		Threshold-refined ablation model for single-pulse USP laser ablation efficiency	Maximilian Spellauge	Spain
P132	Th		Laser Microprocessing of GaN and β-Ga2O3 Based Structures for Applications in Microelectronic Devices	Simonas Indrišiūnas	Lithuania
P133	Mo		Optimization of Ultrafast Laser Scribing Parameters for High-Precision Filamentation of REBCO-HTS Tapes	Masaki Yumoto	Japan
P134	Tu	S	Data-Driven Optimization of Ultrafast Burst Laser Ablation: Efficiency and Surface Quality Using Machine Learning	Linas Jūrėnas	Lithuania
P135	Th		Experimental study on micromachining of silicon carbide with 50 fs pulses at 1 µm wavelength	Nicolay Labanda	Germany
P137	Tu		Optimization of laser cutting parameters for increased cutting speed in stainless steel	Lukas Brundza	Lithuania
P138	Th		Laser Ablation Techniques for Sustainable Recovery of Valuable Materials from Electronic Waste	Abdullah jan Frogh	India
P139	Mo		Laser-matter interaction of thin film high entropy alloys	Eulàlia Puig Vilardell	Lithuania