

Oral Session

Monday, October 1

Opening

8:45 Opening Address

I. Fundamentals of Laser Ablation

Chair: J. T. Dickinson

- 9:00 I-1 **Laser Photothermal Ablation Studied by Ultrafast Microscopy: Fundamental Mechanisms of Ultra Low Threshold Ablation**, Dana D. Dlott, *School of Chemical Sciences, University of Illinois at Urbana Champaign, USA* (Invited)
- 9:30 O-1 **Bond-Selective Desorption and Ionization of Water Clusters and Biomolecules from Water Ices using a Picosecond Tunable Infrared Laser**, M. Baltz-Knorr, K. R. Schriver and R. F. Haglund, Jr., *Vanderbilt University, USA*
- 9:50 O-2 **Dynamics of Laser-Shocked Condensed Matter Probed by Nanosecond Raman Spectroscopy**, K. G. Nakamura, K. Wakabayashi, A. Matsuda and K. Kondo, *Materials and Structures Laboratory, Tokyo Institute of Technology, Japan*
- 10:10 O-3 **Temporal and Spatial Analysis of Plasmas during Graphite Laser Ablation**, S. Acquaviva and M. L. De Giorgi, *INFN and Università di Lecce, Dipartimento di Fisica via Arnesano, Italy*
- 10:30 Coffee Break

II. Fundamentals of Laser Ablation

Chair: J. Schou

- 11:00 I-2 **Control of Laser Induced Reactions in Solids Using Femtosecond and Nanosecond Pulses**, Wayne P. Hess¹, Alan G. Joly¹, Kenneth M. Beck¹, Daniel P. Gerrity², Peter V. Sushko³ and Alexander L. Shluger³, ¹*Pacific Northwest National Laboratory, USA*, ²*Department of Chemistry, Reed College, USA*, ³*Department of Physics and Astronomy, University College London, UK* (Invited)
- 11:30 O-4 **Multiscale Computational Study of Laser Ablation of Organic Materials**, Leonid V. Zhigilei, Michael Zeifman, Barbara J. Garrison, *Department of Materials Science & Engineering, University of Virginia, USA*, *Department of Chemistry, Penn State University, USA*
- 11:50 O-5 **Fundamental Studies of Photodesorption of Cations from Ionic Inorganic Crystals at 157 nm**, L. Cramer, S. C. Langford, W. Hess and J. T. Dickinson, *Washington State University, USA*
- 12:10 O-6 **Phase Explosion under Ultrashort Pulsed Laser Ablation: Modeling with Analysis of Metastable State of Melt**, Nadezhda M. Bulgakova¹ and Igor M. Bourakov², ¹*Institute of Thermophysics SB RAS, Russia*, ²*Novosibirsk State University, Russia*

12:30 *Lunch Time*

13:30 Poster Session I

Coffee Break

III. Pulsed Laser Deposition of Films

Chair: J. S. Horwitz / H. Koinuma

- 16:00 I-3 **Development of Prominent PLD (Aurora method) Suitable for High-Quality and Low-Temperature Film Growth,** Takeshi Kobayashi and Hideki Akiyoshi, *Department of Physical Science, Osaka University, Japan* **(Invited)**
- 16:30 O-7 **Properties of Epitaxially Grown Single Phase RuSr₂GdCu₂O₈ Thin Films Prepared by Pulsed Laser Deposition,** H.-U. Habermeier, G. Cristiani and O. Lebedev, *Max-Planck-Institut für Festkörperforschung, Germany*
- 16:50 O-8 **Picosecond and Femtosecond Pulsed Laser Ablation and Deposition of Quasicrystals,** R. Teghil¹, L. D'Alessio¹, A. Santagata¹, M. Zaccagnino¹, D. Ferro², D. J. Sordelet³, *Dipartimento di Chimica, Università della Basilicata, Italy, ²CNR Centro per la Termodinamica Chimica alle Alte Temperature, Italy, ³Department of Materials Science & Engineering, Iowa State University, USA*
- 17:10 O-9 **Rapid Optimization of Y-Type Magnetoplumbite Thin Films Growth by Combinatorial Pulsed Laser Deposition Technique,** I. Ohkubo¹, Y. Matsumoto¹, K. Itaka¹, T. Hasegawa¹, K. Ueno², M. Ohtani³, M. Kawasaki³, H. Koinuma⁴, ¹*Ceramics Materials and Structures Laboratory, Tokyo Institute of Technology, Japan, ²Central Technology Research Laboratories, ASAHI KASEI CORPORATION, Japan, ³Department of Innovative and Engineered Materials, Japan, ⁴Frontier Collaborative Research Center and Ceramics Materials and Structures Laboratory Tokyo Institute of Technology, Japan and CREST-Japan Science and Technology*
- 17:30 I-4 **Materials by Design: Control of Film Stoichiometry by Decoupling Plasma and Surface Processes in Transition Metal Carbonitrides,** P. R. Willmott¹, H. Spillmann¹ and M. Morstein², ¹*Physical Chemistry Institute, University of Zurich, Switzerland, ²ETH Zürich, Laboratory for Surface Science and Technology, Dept. of Materials, Switzerland* **(Invited)**
- 18:00 O-10 **Influence of the Nitrogen Content on the Field Emission Properties of α -CN_x Films Prepared by Pulsed Laser Deposition,** E. Fogarassy¹, T. Szorenyi^{1,2}, F. Antoni¹, J. P. Stoenert¹, P. Legagneux³, G. Pirio³, D. Pribat³, P. Boher⁴, J. Perrière⁵, ¹*CNRS-PHASE, France, ²Research Group on Laser Physics, Hungary, ³THALES-LCR, Domaine de Corbeville, France, ⁴SOPRA S.A., France, ⁵GPS, Université Paris VII, France*
- 18:20 O-11 **Critical Issues in Enhancing Brightness in Thin Film Phosphors for Flat Panel Display Applications,** R. K. Singh, D. Kumar, K. Cho, M. Ollinger and Z. Chen, *Department of Materials Science and Engineering, University of Florida, USA*

18:40

Tuesday, October 2**IV. NanoScience / NanoTechnology using Laser-Solid Interactions**

Chair: Key Note: K. Murakami / The Others: F. Traeger

- 9:00 I-5 **Nanotechnology of C Nanotubes and Laser Ablation Methods**, Sumio Iijima, NEC, Meijo University, Japan **(Key-Note Lecture, Invited)**
- 9:40 I-6 **Time-Resolved Diagnostics of Single-Wall Carbon Nanotube Synthesis by Laser Vaporization**, Alex A. Puretzky, Dep. Material Science and Engineering, Univ. of Tennessee, USA **(Invited)**
- 10:10 O-12 **Role of the Catalytic Particle Size in the Laser-Ablation Synthesis of Single-Wall Carbon Nanotubes**, A. Gorbunov¹, O. Jost¹, W. Pompe¹, A. Graff², ¹Dresden University of Technology, Germany, ²Institute for Solid State and Materials Research (IFW), Germany
- 10:30 *Coffee Break*

V. NanoScience / NanoTechnology using Laser-Solid Interactions

Chair: D. B. Geohegan

- 11:00 O-13 **Vertically Aligned Carbon Nanotube Growths by Pulsed Laser Deposition (PLD) and Chemical Vapor Deposition (CVD) Methods**, Jung-Inn Sohn and Seonghoon Lee, Department of Materials Science and Engineering, Kwangju Institute Science and Technology (K-JIST), Korea
- 11:20 I-7 **Gas Phase ZnO Nanoclusters and Structural, Optical and Lasing Properties of Corresponding Nanostructured Thin Films**, W. Marine, A. V. Bulgakov, D. Nelson, I. Ozerov and M. Sentis, Groupement Interdisciplinaire Ablation Laser et Applications, UMR CNRS 6631 et UMR CNRS 6594, Faculté des Sciences de Luminy, France **(Invited)**
- 11:50 O-14 **Metallic and Intermetallic Nanoparticles, Filaments and Tree-Like Aggregates Prepared by Laser Vaporization Controlled Condensation**, V. Abedelsayed, Y. B. Pithawalla, E. Alsharaeh and M. S. El-Shall, Department of Chemistry Virginia Commonwealth University, Richmond, USA
- 12:10 O-15 **Dynamics of Hydrogenation of Si Nanoparticles with Green Photoluminescence**, T. Mizuta, D. Takeuchi, Y. Kawaguchi, T. Makimura, K. Murakami, Institute of Applied Physics, University of Tsukuba, Japan
- 12:30 O-16 **The Role of Local Ablation due to Near Field Effects in Laser Cleaning and Surface Nanostructuring**, P. Leiderer¹, M. Mosbacher^{1,2}, H.-J. Münzer¹, M. Bertsch¹, O. Dubbers¹, J. Boneberg¹, B.-U. Runge¹, ¹University of Konstanz, Center of Modern Optics, Germany, ²Johannes-Kepler-Universität Linz, Institute of Applied Physics, Austria
- 12:50 *Lunch Time*
- 14:00 *Poster II*
- Coffee Break*

VI. Laser Processing: Modification, Etching, Cleaning, Machining

Chair: T. Okada / E. Fogarassy

- 16:30 I-8 **Laser Creation of 3-Dimensional Micro- and Nanostructures: Processing, Properties and Applications**, M. Stuke, M. Koch, A. Moore, K. Mueller, M. Lapczyna, G. Padeletti¹, *Max-Planck-Institut f. biophys. Chemie, Germany*, ¹CNR Monterotondo (I) **(Invited)**

- 17:00 O-17 **Polycarbazoles Microcavities: towards Plastic Blue Lasers**, M. C. Castex¹, C. Olivero¹, A. Fischer¹, D. Ades² and A. Siove², ¹*Laboratoire de Physique des Lasers (CNRS)*, ²*Laboratoire de Recherches sur les Macromolecules (CNRS), Université Paris Nord, France*

- 17:20 O-18 **Laser Tuning Technique for Analogue Microelectronics: Process Modeling and Device Characterization**, M. Meunier, M. Cadotte and M. Ducharme, *École Polytechnique de Montréal, Canada*

- 17:40 I-9 **Multiwavelength Excitation Processing Using F₂ and KrF Excimer Lasers for Precision Microfabrication of Hard Materials**, Koji Sugioka¹, Toshimitsu Akane¹, Kotaro Obata², Koichi Toyoda² and Katsumi Midorikawa¹, ¹*RIKEN - The Institute of Physical and Chemical Research, Japan*, ²*Science University of Tokyo, Japan* **(Invited)**

- 18:10 O-19 **Radioactive Oxyde Removal by XeCl Laser**, Ph. Delaporte¹, M. Gastaud¹, W. Marine², M. Sentis¹, O. Uteza¹, P. Thouvenot³, J. L. Alcaraz³, B. Fournel³ D. Blin⁴, ¹*Laboratoire Lasers, Plasmas et Procédés Photoniques LP3, FRE 2165 CNRS - Université de la Méditerranée*, ²*Groupe de Physique des Etats Condensés GPEC, UMR 6631 CNRS - Université de la Méditerranée, France*, ³*Commissariat à l'Energie Atomique Centre d'études de Cadarache, France*, ⁴*ONECTRA, France*

- 18:30 O-20 **Laser Crystallization during Pulsed Laser Deposited of Barium Titanate Thin Films at Low Temperatures**, Jens Gottmann, Bernd Vosseler, Ernst Wolfgang Kreutz, *Lehrstuhl für Lasertechnik RWTH Aachen, Germany*

18:50

Wednesday, October 3**VII. fs-Laser Ablation & Applications**

Chair: M. Stuke

- 9:00 I-10 **Holographic Encoding of Micro-Grain in Transparent Materials by a Single Pulse from Femtosecond Laser**, Hideo Hosono¹, Ken-ichi Kawamura² and Masahiro Hirano², ¹*Tokyo Institute of Technology, Japan*, ²*Hosono Transparent Electro Active Materials Project, ERATO, Japan Science and Technology Corporation (JST), Japan* **(Invited)**
- 9:30 O-21 **Ablation of Solids by Femtosecond Lasers: Ablation Mechanism and Ablation Thresholds for Metals and Dielectrics**, E. G. Gamaly¹, A. V. Rode¹, B. Luther-Davies¹, V. T. Tikhonchuk², ¹*Research School of Physical Sciences and Engineering, Australian National University, Australia*, ²*Institute of Fundamental Physics, University Bordeaux-1, France*
- 9:50 O-22 **Application of Femtosecond Laser Pulses for Microfabrication of Transparent Media**, Hiroaki Misawa, Vygantas Mizeikis, Saulius Juodkazis, Andrius Marcinkevičius, Hongbo Sun, Shigeki Matsuo, *The University of Tokushima, Japan*
- 10:10 O-23 **Fundamental and Analytical Aspects of Femtosecond Laser Microablation**, A. F. Semerok, *Commissariat à l'Energie Atomique, France*
- 10:30 *Coffee Break*

VIII. NanoScience / NanoTechnology & Nonthermal Effects

Chair: R. H. Haglund, Jr.

- 11:00 I-11 **Laser Manipulation of Metal Nanoparticles**, F. Stietz, *Univ. Kassel, Germany* **(Invited)**
- 11:30 O-24 **The Atomic Processes of Ultraviolet-Laser-Induced Etching of Chlorinated Silicon (111) Surface**, H. Amasuga, M. Nakamura, Y. Mera and K. Maeda, *Department of Applied Physics, Graduate School of Engineering, University of Tokyo, Japan*
- 11:50 O-25 **Transient Center Photodecomposition in Potassium Bromide**, Kenneth M. Beck¹, Alan G. Joly¹, Wayne P. Hess¹, Dan Gerrity², Alexander L. Shluger³ and Peter V. Sushko³, ¹*Pacific Northwest National Laboratory, William R. Wiley Environmental Molecular Sciences Laboratory, USA*, ²*Department of Chemistry, Reed College, Portland, USA*, ³*Condensed Matter and Materials Physics, Department of Physics and Astronomy, University College London, UK*
- 12:10
- 12:30 **Bus Starts !**
Excursion
- 19:00 **Bunquet at Sansuitei (Tel: 55-8181)**
- 21:00

Thursday, October 4**IX. Variety of Ultrashort Laser Ablation and Spectroscopy**

Chair: W. Kautek

- 9:00 I-12 **In-Depth Profiling of Multilayer Samples with Femtosecond Laser**, Vanja Margetic,
Kay Niemax and Roland Hergenröder, *Institute of Spectrochemistry and Applied Spectroscopy,
Germany* (Invited)
- 9:30 O-26 **Dephasing of Coherent THz Phonons in Bismuth Studied by Femtosecond Pump-
Probe Technique**, M. Hase¹, K. Ishioka¹, M. Kitajima¹, S. Hishita¹ and K. Ushida², ¹*National
Institute for Materials Science, Japan*, ²*RIKEN (The Institute of Physical and Chemical Research),
Japan*
- 9:50 O-27 **Ultra-Short Infrared Laser Interactions: Measurements of Nonlinear and Nonthermal
Effects and Applications**, David R. Ermer¹, Michelle Baltz-Knorr² and Richard F. Haglund²,
¹*Mississippi State University, USA*, ²*Vanderbilt University, USA*
- 10:10 O-28 **Simultaneous Atomization and Ionization of Large Organic Molecules Using Fem-
tosecond Laser Ablation**, Mizuki Kurata-Nishimura, Fuyuki Tokanai, Yukari Matsuo, Tohru
Kobayashi, Jun Kawai, Hiroshi Kumagai, Katsumi Midorikawa, Isao Tanihata and Yoshihide
Hayashizaki, *RIKEN, Japan*
- 10:30 Coffee Break

X. Variety of Laser Ablation

Chair: J. G. Lunney

- 11:00 I-13 **Atmospheric Pressure Matrix-Assisted Laser Desorption Ionization as a Plume Di-
agnostic Tool in Laser Evaporation Methods**, John H. Callahan¹, Marsha C. Galicia² and
Akos Vertes², ¹*Naval Research Laboratory, Chemical Dynamics and Diagnostics Branch, USA*,
²*Department of Chemistry, George Washington University, USA* (Invited)
- 11:30 O-29 **Analytical Applications of Laser Induced Breakdown Spectroscopy in Art Conser-
vation and Archaeology**, Demetrios Anglos, *Foundation for Research and Technology-Hellas
(FORTH), Institute of Electronic Structure and Laser, Greece*
- 11:50 Lunch Time

XI. Laser Ablation of Polymer / Organic Materials

Chair: A. Yabe

- 13:30 I-14 **Polymers Designed for Laser Ablation-Influence of Photochemical Properties**,
T. Lippert¹, J. T. Dickinson², M. Hauer¹, S. C. Langford², H. Masuhara³, O. Nuyken⁴, J. Robert⁴,
T. Tada³, K. Tomita³ and A. Wokaun¹, ¹*Paul Scherrer Institut, Switzerland*, ²*Washington State
University, USA*, ³*Osaka University, Japan*, ⁴*Technische Universität München, Germany* (In-
vited)
- 14:00 O-30 **Chemical and Structural Modifications in the UV Laser Ablation of Polymers. Im-
plications for the Laser Cleaning of Molecular Substrates**, D. Anglos, A. Athanasiou,
S. Georgiou, V. Tornari and J. Venturini, *Foundation for Research and Technology-Hellas
(FORTH), Institute of Electronic Structure and Laser, Greece*

- 14:20 O-31 **Remarkable Enhancement on Elimination Reaction of Side Groups in Excimer Laser Ablation of Mixture Targets of Perylene Derivatives with Metal Powder**, Satoru Nishio, Kazuyuki Tamura, Yukari Tsujine, Tomoko Fukao, Masayoshi Nakano, Akiyoshi Matsuzaki and Hiroyasu Sato, *Laser Photochemistry Research Group, Department of Chemistry for Materials, Faculty of Engineering, Mi'e University, Japan*
- 14:40 I-15 **Laser-Induced Nanometer-Nanosecond Ablation, Expansion, and Contraction Dynamics of Some Polymer Films Studied by Time-Resolved Interferometry**, Hiroshi Masuhara, Tomokazu Masubuchi, Takashi Mito and Takuji Tada, *Department of Applied Physics, Osaka University, Japan* **(Invited)**
- 15:10 O-32 **Resonant IR-Pulsed Laser Deposition of Polymer Films Using a Free-Electron Laser**, Daniel M. Bubb¹, J. S. Horwitz¹, J. H. Callahan¹, R. A. McGill¹, E. J. Houser¹, D. B. Chrisey¹, M. R. Papantonakis², R. F. Haglund, Jr.², M. Galicia³, A. Vertes³ and Bo Toftmann⁴, ¹*Naval Research Laboratory, USA*, ²*Vanderbilt University, USA*, ³*George Washington University, USA*, ⁴*Risø National Laboratory, Denmark*
- 15:30 *Coffee Break*

XII. Pulsed Laser Deposition of Films

Chair: W. Marine / J. S. Horwitz

- 16:00 I-16 **Pulsed Laser Deposition of SrTiO₃ on InP for the Integration of Piezoelectric Pb_{0.775}La_{0.15}TiO₃**, E. Vasco¹, C. Polop¹, C. Coya², A. Kling³ and C. Zaldo¹, ¹*Instituto de Ciencia de Materiales de Madrid. Consejo Superior de Investigaciones Científicas, Spain*, ²*Escuela Superior de Ciencias Experimentales y Tecnología. Universidad Rey Juan Carlos, Spain*, ³*Instituto Tecnológico e Nuclear, Portugal* **(Invited)**
- 16:30 O-33 **Advanced Pulsed Laser Deposition for Growth Manipulation**, Dave H. A. Blank and Guus Rijnders, *MESA+ Research Institute, Applied Physics, University of Twente, Netherlands*
- 16:50 O-34 **Properties of Piezoelectric and Ferroelectric Heterostructures Prepared by Pulsed Laser Deposition**, I. Vrejoiu, R. Dinu, R. Savu, C. Grigoriu, F. Craciun¹, P. Verardi¹, M. Dinescu, *IFA, NILPRP, Lasers Dept., Romania*, ¹*Institute of Acoustics "O.M. Corbino", CNR, Italy*
- 17:10 I-17 **Oxygen Atmosphere Laser Ablation of Graphite for Synthesis of Diamond and Carbon Nanostructures**, M. Yoshimoto, K. Nakajima, M. Furusawa, J. Tashiro and A. Sasaki, *Ceramics Laboratory, Tokyo Institute of Technology, Japan* **(Invited)**
- 17:40 O-35 **Study of Expansion of Laser Ablation Plumes of Ga and GaN in Various N₂ Atmospheres Using Stigmatic Emission Spectroscopy**, A. P. McKiernan¹, E. T. Kennedy¹, J. G. Lunney² and J.-P. Mosnier¹, ¹*School of Physical Sciences and National Centre for Plasma Science and Technology, Ireland*, ²*Physics Department, Trinity College, Ireland*
- 18:00 O-36 **Advantages of PLD in Group III nitride growth**, H. Fujioka¹, J. Ohta¹, H. Takahashi¹, S. Ito¹, M. Oshima¹ and H. Koinuma², ¹*Department of Applied Chemistry, The University of Tokyo, Japan*, ²*Materials and Structures Laboratory, Tokyo Institute of Technology, Japan*
- 18:20 O-37 **Pulsed Laser Deposition of Cubic Boron Nitride Films at High Growth Rates**, Steffen Weißmantel, Günter Reiße, *Hochschule Mittweida, University of Applied Sciences, Germany*
- 18:40

Friday, October 5

XIII. Laser Plasma and Applications

Chair: C. Fotakis

- 9:00 I-18 **X-Ray Generation from fs Laser Heated Xe Clusters**, Kiminori Kondo, M. Mori and T. Shiraishi, *Center for Tsukuba Advanced Research Alliance (TARA), University of Tsukuba, Japan* (Invited)

- 9:30 O-38 **Time-Resolved EUV Spectroscopy in the Early Stage of Laser Ablation of Carbon**, Pierre Loiseleur¹, Tue N. Hansen² and James G. Lunney², ¹*Laboratoire de Physique et Technologie des Plasmas, CNRS/Ecole Polytechnique, France*, ²*Department of Physics, Trinity College, Dublin 2, Ireland*

- 9:50 O-39 **Large Area PLD of nm-Multilayers**, R. Dietsch¹, Th. Holz¹, R. Scholz², D. Weißbach¹, ¹*Fraunhofer Institute Material and Beam Technology, Germany*, ²*Max Planck Institute for Microstructure Physics, Germany*

10:10 Coffee Break

XIV. Laser Plasma and Applications

Chair: W. P. Hess

- 10:40 I-19 **The Role of Hot Ballistic Electrons for Ablation of Metals by Ultrashort Laser Radiation**, W. Husinsky, V. Schmidt, R. Siebenküttel, R. Schmitzer and G. Betz, *Institut für Allgemeine Physik, Vienna University of Technology, Austria* (Invited)

- 11:10 O-40 **Ion Dynamics in Laser Ablation Plumes from Selected Metals at 355 nm**, B. Thestrup¹, B. Toftmann¹, J. Schou¹, B. Doggett² and J. G. Lunney², ¹*Department of Optics and Fluid Dynamics, Risø National Laboratory, Denmark*, ²*Physics Department, Trinity College, Dublin 2, Ireland*

- 11:30 O-41 **Dynamics of Plume Generation in a Laser Forward Transfer Process**, D. Young¹, R. C. Y. Auyeung¹, H. Denham¹, A. Piqué¹, D. B. Chrisey¹ and D. D. Dlott², ¹*Naval Research Laboratory, Washington DC, USA*, ²*Department of Chemistry, University of Illinois at Champaign-Urbana, USA*

Closing

11:50 Poster Award
Closing Remarks

12:10

Poster Session

Poster I (Monday, Oct. 1)

PM-1 Study on UV and IR Laser Interaction with Metal Surfaces, A. V. Fedenev, I. M. Goncharenko, N. N. Koval', V. M. Orlovskii, V. F. Tarasenko

PM-2 The Onset of Optical Breakdown in KrF-Laser-Irradiated Silica Glass, Y. Kawaguchi, A. Narazaki, T. Sato, H. Niino, A. Yabe, S. C. Langford, and J. T. Dickinson

PM-3 Total Surface Super-Absorption of Laser Radiation during Collective Instability of Oscillating Electrons Produced and Accelerated on a Surface of Condensed Target by Short Laser Pulse, Vladimir Vysotskii

PM-4 Spectroscopic and Ion Probe Diagnostic of Laser Ablated Ti Target, T. kerdja, s. Abdelli, s. Nait-Omar, S. Lafane, S. Malek and A. Bendib

PM-5 Observation of Light Emissig Region Produced by Pulsed Laser Irradiation to Solid-Liquid Interface, Kotaro Saito, Kazuhiro Takatani, Tetsuo Sakka and Yukio H. Ogata

PM-6 Phase Explosion and Its Time Lag in Nanosecond Laser Ablation, Xianfan Xu

PM-7 Photothermal and Photomechanical Effects During Picosecond Laser Ablation of Silicon, Patrick Lorazo, Laurent J. Lewis and Michel Meunier

PM-8 Laser Ablation of Solid-Nitrogen Film by UV ps-Laser Irradiation, Hiroyuki Niino, Tadatake Sato, Aiko Narazaki, Yoshizo Kawaguchi and Akira Yabe

PM-9 A Computational Model for Selected Emission and Absorption Transitions in an Expanding Laser Produced Lithium Plume, M. W. Stapleton, J. T. Costello, E. T. Kennedy, P. Van Kampen, W. Whitty and J. -P. Mosnier

PM-10 (withdrawn)

PM-11 Modeling of Vapour Flow in Deep Penetration Laser Welding, E. H. Amara and A. Bendib

PM-12 Measurement of the Anisotropy of the Electron Distribution of a Laser-Produced Al Plasma Using Space-Resolved Plasma Polarization Spectroscopy, Jaehoon Kim and Dong-Eon Kim

PM-13 Characterization of Rear and Front-Side Laser Ablation Plasmas for Thin Film Deposition, L. Escobar-Alarcón, E. Camps, E. Haro-Poniatowski, M. Villagran, C. Sánchez

PM-14 Ignition of Thin Explosive Layer by Laser Ablated High Temperature Metal Plasma, Kunihito Nagayama, Kazunari Inou and Motonao Nakahara

PM-15 Observation of Continuous Emission Spectra from Laser-Ablation Carbon Plumes, K. Sasaki, T. Wakasaki and K. Kadota

PM-16 Translational Temperature of SiO⁺ Produced by Laser Ablation, Takashi Mogi, Yoshimitsu Fukuyama, Tohru Kobayashi, Isao Tanihata, Kiyoji Uehara, Yukari Matsuo

PM-17 Role of Gas Breakdown Plasma in Deep Channel Formation by Ultrashort Laser Pulses, S. M. Klimentov, T. V. Kononenko, P. A. Pivovarov, S. V. Garnov, V. I. Konov, A. M. Prokhorov, D. Breitling and F. Dausinger

PM-18 Investigation of the Mechanisms Involved in Plasma Formation and Decay at a Surface during Laser Induced Plasma Spectroscopy, R. Barbini, F. Colao, R. Fantoni, V. Lazic, A. Palucci, S. Pershin

PM-19 Expansion Dynamics of the Laser Induced Plasma in a Background Gas: Comparison of Experimental Results with an Extended Analytical Model, Jens Gottmann, Ernst Wolfgang Kreutz

PM-20 Velocity and Metasble-States Population Distributions of Atoms in Laser Ablation Plume from Neodymium and Gadolinium Targets, Hironori M. Ohba, Hideki Iimura, Takemasa Shibata and Hiroari Miyatake

PM-21 Comparison of Neutral and Ionic Product Channels in MALDI, Michael L. Alexander and Wayne P. Hess

PM-22 LA-ICP-MS: Ablation Studies Using a 266 nm Nd:YAG and an 193 nm Excimer Laser Ablation System for Quantitative Elemental Analysis, Detlef Günther, Ingo Horn, Marcel Guillong, Bodo Hattendorf

PM-23 Picosecond Infrared Matrix-Assisted Laser Desorption-Ionization Mass Spectroscopy of Organic Molecules on Nitrate Crystallites, M. R. Papantonakis, D. R. Ermer and R. F. Haglund, Jr.

PM-24 Application of Laser-Induced Breakdown Spectroscopy to the Analysis of the Composition of Thin Films Produced by Pulsed-Laser Deposition, C. Aragón, V. Madurga, J. A. Aguilera

PM-25 Pulsed Laser Ablation TOF-MS Analysis of Planets and Small Bodies, William B. Brinckerhoff

PM-26 Debris from Tape-Target Irradiated with Pulsed YAG Laser, Hirozumi Azuma, Yasuhiko Nishimura, Atushi Sakata and Akihiro Takeuchi

PM-27 Thin Films Deposition in RF Plasmas by Reactive Pulsed Laser Ablation, A. Giardini, V. Marotta, S. Orlando, G. P. Parisi

PM-28 Synthesis and Characterization of Hastelloy Thin Films by Pulsed Laser Ablation, S. Duhalde, M. F. Vignolo, F. Audebert, I. Avram, T. Pérez, L. Cultrera, A. Forleo, G. Marsano, A. Perrone and A. Zocco

PM-29 Thermal Analysis for Cooling Process of Ge Droplets in Laser Droplet Epitaxy, Shigeru Ohtsubo, Yasuto Yonezawa, Satoru Yamada, Akiharu Morimoto and Tatsuo Shimizu

PM-30 Raman Scattering Measurements in ZrN Films Produced by RPLD, R. Castell, C. Castell, Ch. Power and J. Gonzalez

PM-31 Laser Deposition of Thin Film with Varying Substrate Temperature during Film Growth, W. D. Song, M. H. Hong, Y. F. Lu, W. J. Wang, Y. F. Xu, S. I. Pang and T. C. Chong

PM-32 Single-Phase Diamond Thin Films on Diamond(100) Prepared by Pulsed Laser Deposition using a Graphite Target, Tsuyoshi Yoshitake, Takeshi Hara, Takashi Nishiyama and Kunihito Nagayama

PM-33 Laser Ablation of Thin Carbon Layer Deposited on a Polymer Substrate by Nd:YAG Laser, Tsuyoshi Noguchi, Koji Suizu, Kunihito Nagayama

PM-34 Fabrication of Ce:YIG Thin Films with Different Compositions by Pulsed-Laser Deposition, Yuko Tashiro, Yoshiki Nakata, Tatsuo Okada, Mitsuo Maeda, Sadao Higuchi, Kiyotaka Ueda

PM-35 Effect of Deposition Conditions on Optical and Electrical Properties of ZnO Films Prepared by PLD, Ji Nan Zeng, Juay Kiang Low, Zhong Min Ren, Yong Feng Lu

PM-36 Deposition of ZnO Film by Pulsed-Laser Deposition at Room Temperature, Yoshiki Nakata, Tatsuo Okada, Mitsuo Maeda

PM-37 Pulsed Laser Deposition of Gold Thin Films, E. Irissou, M. Chaker, M. Trudeau, D. Guay

PM-38 Intermetallics of Nickel and Iron Based, Deposited using KrF Laser, W. Mróz, A. Prokopiuk, M. Mularczyk-Oliwa, M. Jelinek, B. Major, W. Przetakiewicz, Z. Bojar, S. Jóźwiak, D. Zasada and K. Kasuya

PM-39 Preparation of SiN_x Film by Pulsed Laser Ablation in Nitrogen Gas Ambient, I. Umezawa, K. Kohno, T. Yamaguchi, M. Inada and A. Sugimura

PM-40 Preparation of Epitaxial AlN Thin Films on Silicon Wafers by Pulsed Laser Deposition, J. -M. Liu, H. L. Chan, C. L. Choy and Z. G. Liu

PM-41 Capture of Droplets using a Rotation Filter in Pulsed Laser Ablation of FeSi₂, Tsuyoshi Yoshitake, Gousuke Shiraishi and Kunihito Nagayama

PM-42 Growth of GaN on Nearly Lattice Matched MnO Substrates by Pulsed Laser Deposition, S. Ito, J. Ohta, H. Takahashi, H. Fujioka and M. Oshima

PM-43

PM-44 Pulsed Laser Deposition of Thin Films of Boron Carbide and their Nanoindentation Hardness, M. Taniwaki, F. Kokai, M. Ishihara and Y. Koga

PM-45 Synthesis of C₃N₄ by the Combination of Laser Ablation of Graphite and N₂ Molecular Beam, I. Zergioti, A. Sfounis, M. Velegrakis, I. Alexandrou, G. A. J. Amaratunga

PM-46 (withdrawn)

PM-47 TiO₂ Thin Films Prepared by PLD for Photocatalytic Applications, Narumi Inoue, Hiromitsu Uasa and Masayuki Okoshi

PM-48 Oxygen Trapping during Pulsed Laser Deposition of Oxide Films, V. Craciun, J. Perriere, R. K. Singh

PM-49 UV Assisted Processing of High K Dielectric Materials, J. M. Howard, V. Craciun, N. D. Bassim and R. K. Singh

PM-50 Preparation of Epitaxial Pb(Zr, Ti)O₃ Thin Films Using Coating Photolysis Process, Yuki Miyamoto, Tetsuo Tsuchiya, Iwao Yamaguchi, Takaaki Manabe, Hiroyuki Niino, Akira Yabe, Toshiya Kumagai, Toshio Tsuchiya and Susumu Mizuta

PM-51 Initial Growth Study of SrRuO₃ Studied by High-Pressure RHEED, Guus Rijnders, Horst Rogalla and Dave H. A. Blank

PM-52 Various Oxidation Environments in Preparation of PZT Films by Pulsed Laser Ablation, Akiharu Morimoto, Satoru Yamada, Takehiko Kishi, Shigeru Ohtsubo and Tatsuo Shimizu

PM-53 Combinatorial Fabrication and Cathodoluminescence Properties of Composition Spread MHfO₃ : Tm (M=Sr,Ba,Ca) Films and Superlattices, N. Arai, T. W. Kim Y. Matsumoto and H. Koinuma

PM-54 Combinatorial Pulsed Laser Deposition of Gd_xY_{1-x}Ca₄O(BO₃)₃ Thin Films and Their Nonlinear Optical Properties, T-W. Kim, N. Arai, Y. Matsumoto, M. Yoshimura, H. Furuya, H. Nakao, Y. Mori, T. Sasaki and H. Koinuma

PM-55 Laser Induced Forward Transfer Process of Metal Thin Films, Hirokazu Yamada, Tomokazu Sano, Takayuki Nakayama, Isamu Miyamoto

PM-56 Ablation of Crystalline Silicon upon Double Femtosecond Laser Beam Irradiation, Taeyoul Choi, David J. Hwang and Costas P. Grigoropoulos

PM-57 Femtosecond Multistep Laser Etching of Amorphous Organic Films, Yoichroh Hosokawa, Masaki Yashiro, Tsuyoshi Asahi and Hiroshi Masuhara

PM-58 (withdrawn)

PM-59 Femtosecond Carrier and Phonon Dynamics in Defective Materials, K. Ishioka, M. Hase, K. Ushida and M. Kitajima

PM-60 Electrostatic Field Induced Mechanism of Ultrafast Melting in Metals and Semiconductors, E. G. Gamaly, A. V. Rode, M. Samoc B. Luther-Davies, V. T. Tikhonchuk

PM-61 Femtosecond Pulse Laser Ablation of Anodic Oxide Coatings on Aluminium Alloys with on-line Acoustic Observation, J. Krüger, P. Meja, M. Autric, W. Kautek

PM-62 Formation of Carbon Nano-Foam and Nanotubes by High-Repetition-Rate Laser Ablation, A. V. Rode, E. G. Gamaly, R. G. Elliman, S. T. Hyde, B. Luther-Davies

PM-63 Codeposition Process of Monodispersed Silicon Nanoparticles and Transparent Conductors, N. Suzuki, Y. Yamada, T. Makino, T. Yoshida and T. Seto

PM-64 Electroluminescence of Silicon Nanostructured Films Synthesized by Pulsed Laser Ablation in Inert Background Gas, T. Makino, Y. Yamada, N. Suzuki, T. Yoshida and S. Onari

PM-65 Observation of Large-Size Carbon Cluster Ions by Laser Ablation of Polymers in Vacuum, K. Shibagaki, N. Takada, K. Sasaki and K. Kadota

PM-66 Nonlinear Optical Properties Of Laser Ablated Silicon Nanostructures, S. Vijayalakshmi, A. Lan and H. Grebel

PM-67 Carbon Nanoparticle Deposition by Plasma Assisted PLD Method on Silicon Substrate, Y. Suda, T. Ono, Y. Sakai and K. Suzuki

PM-68 Modeling and Analysis of Nanoparticle Formation and Growth in Inert Gas Ambient Pulsed Laser Ablation of Silicon, N. Aya, M. Hirasawa, T. Orii and T. Seto

PM-69 Visible Photoluminescent Si-Based Nanostructured Layers Produced by Air Optical Breakdown Near a Silicon Surface, A. V. Kabashin and M. Meunier

PM-70 Fabrication of Er-Doped Si Nanocrystallites without Thermal Quenching of 1.5-μm Photoluminescence, Changqing Li, Keiichi Kondo, Tetsuya Makimura and Kouichi Murakami

PM-71 Synthesis and Properties of Laser-Synthesized Nanofunctionalized Particulates for Pulmonary Based Controlled Drug Delivery Applications, R. K. Singh, M. Ollinger, W. S Kim, V. Craciun, I. Coowanitwong, G. Hochhaus, R. Houriet, H. Hofmann, N. Koshizaki

PM-72 Raman Spectroscopic Studies on Bismuth Nanoparticles Prepared by Laser

- Ablation Technique,** Seinosuke Onari, Masaaki Miura and Kiyoto Matsuishi
- PM-73 Synthesis and Spectroscopic Properties of Silicon Nanowires,** Jifa Qi, Tomomaso Nakanoya, Yasuaki Masumoto
- PM-74 Preparation of Pt/TiO₂ Nanocomposite Films by 2-Beam Pulsed Laser Deposition,** Takeshi Sasaki, Kenneth M. Beck and Naoto Koshizaki
- PM-75 Preparation of Nanocrystalline Titania Films by Pulsed Laser Deposition at Room Temperature,** Naoto Koshizaki, Aiko Narazaki, Takeshi Sasaki
- PM-76 Reduced Degradation Effects by Application of Nanoscale Coatings on Sulfide Based Phosphors,** M. Ollinger, V. Craciun and R. K. Singh
- PM-77 Ultrafast Melting and Ablation of Silicon: Dependence on Pulse Duration,** Harald O. Jeschke, Martín E. Garcia, Matthias Lenzner, Jörn Bonse, Wolfgang Kautek and Jörg Krüger
- PM-78 XeCl Laser Treatment of Steel Surface,** A. Pereira, A. Cros, Ph. Delaporte, W. Marine, M. Sentis
- PM-79 Growth of Surface Structures in Ti through Nd:YAG Laser Irradiation,** E. György, A. Pérez del Pino, P. Serra, J. L. Morenza
- PM-80 Fabrication of Diffractive Phase Elements for the UV-Range by Laser Ablation Patterning of Dielectric Layers,** J. Ihlemann, D. Schäfer
- PM-81 Ablation Threshold Dependence on Pulse Duration for Pure Metals,** M. Hashida, A. F. Semerok, O. Govert, G. Petite, Y. Izawa and J. F.- Wagner
- PM-82 Thin Film Patterning by Direct Laser Fabrication of Resist Mask,** Xuekang Chen, Akiharu Morimoto, Minoru Kumeda and Tatsuo Shimizu
- PM-83 Laser Microprinting of InO_x Active Optical Structures,** I. Zergioti, D. Papazoglou, G. Koundourakis, N. A. Vainos and C. Fotakis
- PM-84 Laser Ablation and Chemistry of Silk Protein,** Yasuyuki Tsuboi and Akira Itaya
- PM-85 Growth of Hydroxyapatite Coatings Deposited by Laser-Assisted Laser Ablation Method,** Masahito Katto, Masahiro Nakamura, Toshiharu Tanaka, Takeyoshi Nakayama
- PM-86 Thin Film Deposition by Laser Ablation of Dimethylpolysiloxane,** Masaaki Kuramatsu, Masayuki Okoshi and Narumi Inoue
- PM-87 Wavelength-Dependence of the Photochemical Modifications in the UV Irradiation of Doped Polymers: Mechanistic Implications,** A. Athanassiou, E. Andreou, D. Fragouli, D. Anglos, S. Georgiou
- PM-88 Femtosecond Laser-Induced Material Transfer and Phase Transition of Organic Dye Solids,** Hiroshi Yoshikawa, Masaki Yashiro, Tuyoshi Asahi and Hiroshi Masuhara
- PM-89 Femtosecond Laser Ablation Dynamics of Organic Microcrystals Studied by Time-Resolved Optical Micrography and Microspectroscopy,** Tsuyoshi Asahi, Tomokazu Tanaka, Kenji Horie, Yoichiro Hosokawa and Hiroshi Masuhara
- PM-90 Laser Ablation Mechanism of Urethane-Urea Copolymer Film: The Excitation Wavelength Dependence in Time-Resolved Interferometric Measurements,** T. Tada, T. Asahi, H. Masuhara, M. Tsuchimori and O. Watanabe
- PM-91 New Drilling Technique for Multilayered Materials by Single Shot Laser Irradiation,** Naoki Wakabayashi, Takahiro Ide and Yasushi Aoki
- PM-92 Experimental Apparatus to Pulsed Laser Deposition on Large Area,** U. Gambardella and A. Morone
- PM-93 Formation of Silver Nanoparticles by Laser Ablation of Silver Target in NaCl Solution,** Chang Hyun Bae, Sang Hwan Nam, Seung Min Park
- PM-94 Thermogradient Mechanism of p-n Junction Formation by Laser Radiation in Semiconductors,** A. Medvid' and L. Fedorenko
- PM-95 Deposition of Er: YAG (YAP) Layers by Subpicosecond and Nanosecond KrF Excimer Laser Ablation,** Miroslav Jelinek, Costas Fotakis, Argyro Klini, Christos Grivas, Jan Lancok, Vaclav Studnicka and Anna Mackova
- PM-96 Pulsed Laser Deposition of NiMnSb Thin Films at Moderate Temperature,** J. Giapintzakis, C. Grigorescu, A. Klini, A. Manousaki, V. Zorba, J. Androulakis, Z. Viskadourakis and C. Fatakis

PM-97 Physical and Structural Properties of Carbon Thin Films Deposited in 2 Inert Gases Ambient by Pulsed Laser Ablation Using Camphoric Carbon Target, M. Rusop, T. Soga, T. Jimbo and M. Umeno

PM-98 Photoluminescence Decay-Dynamics of Si Nanoparticles Prepared by Pulsed Laser Ablation, Kei Watanabe, Kouichi Sawada, Minoru Fujii, Kazuyuki Moriwaki, Shinji Hayashi

Poster II (Tuesday, Oct. 2)

PT-1 Phase Transformation and Ejection Dynamics in the UV Laser Irradiation of Model Molecular Solids, Antonis Koubenakis and Savas Georgiou

PT-2 Water as a Promoter of Laser and Electron Beam Interactions with Ionic Crystals—Fundamental Studies, J. T. Dickinson, M. Dawes, K. Nwe and S. C. Langford

PT-3 Application of Laser Ablation / ICP-MS to the Analysis of Advanced Ceramics, Tomokazu Tanaka and Masataka Hiraide

PT-4 Ultra Short Laser Pulse Ablation from Sodium Chloride — The Role of Laser Induced Color Centers, Matthias Henyk, Florenta Costache, Juergen Reif

PT-5 Influence of Time-Dimensional Characteristics of the Laser Radiation on the Heat State of the Irradiated Body, L.F. Golovko, V.V. Roman

PT-6 Pulsed Laser Ablation of Solids and Critical Phenomena, Nadezhda M. Bulgakova, Alexander V. Bulgakov, Igor M. Bourakov, and Natalia A. Bulgakova

PT-7 Nanosecond Laser Generation of Internal White Light Luminescence in Insulators—The Nature and Origin of Confined Plasmas in Transparent Solids, C. Bandis, L. Cramer and J. T. Dickinson

PT-8 Theory for Laser Induced Ablation and Ultrafast Melting of Carbon, M. E. Garcia, H. O. Jeschke and K. H. Bennemann

PT-9 Simulation on Femto-Second Laser Ablation, Hiroyuki Furukawa and Masaki Hashida

PT-10 Numerical and Experimental Study of Picosecond Laser Ablation of Metal, Xianfan Xu and David A. Willis

PT-11 Plume Expansion of a Laser-Induced Plasma Studied with the Particle in Cell (PIC) Method, O. Ellegaard, T. Nedelea, J. Schou and H. M. Urbassek

PT-12 Spectroscopic Studies of Two Perpendicularly Interacting Carbon Plasmas Generated by Laser Ablation, E. Camps, L. Escobar-Alarcón, E. Haro-Poniatowski, M. Fernandez-Guasti

PT-13 Emission Spectra of the Species Ablated from a Solid Target Submerged in Liquid, Tetsuo Sakka, Kotaro Saito, Yukio H. Ogata

PT-14 Plasma Deflection during Pulsed Laser Ablation of Solid Targets, A. Perrone, A. Zocco

PT-15 Electron Density in a Carbon Ablation Plume, Maria-Antoaneta Bratescu, Yosuke Sakai, Daisuke Yamaoka, Yoshiyuki Suda and Hirotake Sugawara

PT-16 Laser-Induced Optical Emission of Carbon Plume by Excimer and Nd:YAG Laser Irradiation, Tatsuya Shinozaki, Toshihiko Ooie, Tetsuo Yano, Jian Ping Zhao, Zhi Ying Chen and Masafumi Yoneda

PT-17 Plume Dynamics in ZnO under ArF Laser Radiation, Y. Kawaguchi, A. Narazaki, T. Sato, H. Niino and A. Yabe

PT-18 Temperature and Electron Density Distributions of Laser-Induced Plasmas Generated with an Iron Sample at Different Ambient Gas Pressures, J. A. Aguilera and C. Aragón

PT-19 Laser Analytical Spectroscopy of Atoms by Laser Ablation in Flame, A. T. Khalmanov and H. S. Khamraev

PT-20 X-Ray and Fast Ion Generation from Metal Targets by Femtosecond Laser Irradiation, Y. Okano, H. Kishimura, Y. Hironaka, K. G. Nakamura and K. Kondo

PT-21 Stable Strontium Isotope Ratio Measurements by Means of Laser Ablation Inductively Coupled Plasma Mass Spectrometry (LA-ICP-MS) in Prehistoric and Historic Archeological Findings, T. Prohaska, C. Latkoczy, M. Teschler Nicola and G. Stingereder

PT-22 Optical Method of Measuring Nanosecond Pressure Pulse in Water, Mitsuru Terada, Sachiko Hatano, Yasuhito Mori and Kunihito Nagayama

PT-23 Picosecond X-Ray Diffraction from Laser-Irradiated Crystals, Y. Hironaka, A. Yazaki, K. G. Nakamura, K. Kondo

PT-24 A keV-Region Spectroscopic Study of Laser-Induced Plasma X-Ray from Aqueous Solutions of Alkali Metal Salts, Toshifumi Miura, Koji Hatanaka, Hideho Odaka and Hiroshi Fukumura

PT-25 Improvement of Depth Profile Analysis by Laser Induced Plasma Spectroscopy, V. Detalle, M. Sabsabi, R. Héon and L. St-Onge

PT-26 Mechanisms in the Growth of ZrC_xN_{1-x} Thin Films by Pulsed Reactive Crossed-Beam Laser Ablation, H. Spillmann, C. Clerc and P. R. Willmott

PT-27 Pulsed Laser Deposition of Semiconductor-ITO Composite Films on Electric-Field-Applied Substrates, Aiko Narazaki, Tadatake Sato, Yoshizo Kawaguchi, Hiroyuki Niino, Akira Yabe, Takeshi Sasaki and Naoto Koshizaki

PT-28 Laser Deposited Colossal Magnetoresistive Manganite Thin Films—Fabrication and Characterization of Magnetotransport, Srinivas V. Pietambaran, D. Kumar and Rajiv K. Singh

PT-29 Artificial Layered Cuprates Made by Pulsed Laser Interval Deposition, Guus Rijnders, Victor Leca, Gertjan Koster, Horst Rogalla and Dave H. A. Blank

PT-30 Combinatorial Fabrication and Multi-Channel Characterization of Thermoelectric Thin Films, H. Minami, K. Itaka, H. Kawaji, H. Koinuma

PT-31 The Great Improvement of Surface Smoothness of CaF_2 in Pulsed Laser Deposition Even under the Two-Photon Absorption Process, Tetsuro Maki, Kei Okamoto, Masanori Sugiura, Takeshi Hosomi and Takeshi Kobayashi

PT-32 Laser Modelling of Transparant Diamond, Yves Kerremans

PT-33 TEM and Raman Investigation of RF-Plasma Assisted Pulsed Laser Deposition of Carbon Films, E. Cappelli, S. Orlando, G. Mattei, G. Merli and P. Ascarelli

PT-34 Pulsed Laser Deposition of Materials for Optoelectronic Applications, A. P. Caricato, M. Fernández, G. Leggieri, A. Luches, M. Martino

PT-35 Fabrication of Bi-Doped YIG Optical Thin Film for Electric Current Sensor by Pulsed Laser Deposition, Hiromitsu Hayashi, Shouhachi Iwasa, Nilesh J. Vasa, Tsuyoshi Yoshitake, Kiyotaka Ueda, Shigeru Yokoyama, Sadao Higuchi, Hirohito Takeshita, Kenichi Terazono

PT-36 Pure and Sn-Doped ZnO Films Produced by Pulsed Laser Deposition, J. Schou, E. Holmelund and S. Tougaard

PT-37 PLD Growth of ZnO Film Free From Deep Level Emission Using $(La, Sr)TiO_3$ Substrate, Masanori Sugiura, Yuu Nakashima, Takuya Nakasaka and Takeshi Kobayashi

PT-38 Formation of Unusual Intermetallic Phases by Vacuum PLD, A. Gorbunov, A. Levin, A. Mensch, D. C. Meyer, A. Tselev, P. Paufler, W. Pompe, E. Wieser

PT-39 Optical Properties of As-S Chalcogenide Films Deposited by Ultra-Fast Laser Ablation, A. V. Rode, A. Zakery, M. Samoc, E. G. Gamaly and B. Luther-Davies

PT-40 Influence of the Growth Conditions of AlN Films by Laser Ablation, A Basillais, C Boulmer-Leborgne and J Perriere

PT-41 Fabrication of Conductive AlN Thin Films by Pulsed Laser Depositin, H. Tanaka, Y. Kai, M. Okamoto, Y. K. Yap, M. Yoshimura, Y. Mori and T. Sasaki

PT-42 Growth of Epitaxial AlN Films on $(Mn, Zn)Fe_2O_4$ Substrates by Pulsed Laser Deposition, J. Ohta, H. Takahashi, H. Fujioka and M. Oshima

PT-43 Brilliant Photoluminescence from GaN Film grown by PLD under Particle-Energy-Manipulation, Kouhei Mizuno, Jun Suzuki, Tetsuro Maki and Takeshi Kobayashi

PT-44 Structure and Mechanical Properties of Cubic Boron Nitride Films Prepared by Pulsed Laser Deposition at High Growth Rates, Günter Reiße, Steffen Weißmantel, Steffen Schulze

PT-45 Deposition of BN Thin Films onto Si Substrate by PLD with Nano-Second and Femto-Second Pulses in Nitrogen Gas Background, C. R. Luculescu, H. Miyake and S. Sato

PT-46 Pulsed Laser Deposition of Electrochemical Active Perovskite Films, M. J. Montenegro, T. Lippert, S. Müller, A. Weidenkaff, P. Willmott, A. Wokaun

PT-47 Growth Dynamics of La-Modified PbTiO₃ Films by Pulse Laser Deposition, E. Vasco, C. Polop and C. Ocal

PT-48 Structural Properties of Indium Oxide Thin Films Prepared by Pulsed Laser Deposition, Yuka Yamada, Nobuyasu Suzuki, Toshiharu Makino and Takehito Yoshida

PT-49 Control of Interfacial Oxide Formation During Pulsed Laser Deposition of High K Dielectrics on Silicon, N. Bassim, V. Craciun, J. Howard, R. K. Singh

PT-50 Characterization of Tin-Doped Indium Oxide Films Prepared by Coating Photolysis Process, Tetsuo Tsuchiya, Hiroyuki Niino, Akira Yabe, Iwao Yamaguchi, Takaaki Manabe, Toshiya Kumagai and Susumu Mizuta

PT-51 Influence of Microstructure on Electrochemical Kinetics of Laser Deposited LiMn₂O₄ Thin Film Electrodes In Li Ion Batteries, D. Singh, W. S Kim, V. Craciun, H. Hofmann and R. K. Singh

PT-52 Structural and Electrical Properties of Lanthanum Oxide Thin Films Deposited by Laser Ablation, M. F. Vignolo, S. Duhalde, M. Bormioli, G. Quintana, M. Cervera and J. Tocho

PT-53 PLD Growth of La_{0.7}Sr_{0.3}MnO₃ Tilted Nanocolumn Boundaries on Constricted Step-Edged GaAs Substrates and MR Properties, Issei Satoh, Masatsugu Oniduka and Takeshi Kobayashi

PT-54 Combinatorial Optimization of Atomically Controlled Growth for Oxide Films by Laser Molecular Beam Epitaxy, R. Takahashi, Y. Matsumoto, M. Lippmaa, M. Kawasaki, H. Koinuma

PT-55 Temperature Dependence of Magneto Transport Properties in Pulsed Laser Deposited La_{0.5}Ca_{0.5}MnO₃ Thin Films, D. Rubi, S. Duhalde, M. C. Terzzoli, G. Leyva, G. Polla, P. Levy, F. Parisi and D. Vega

PT-56 Acoustic Detection of Anodic Oxide Layer Removal from Aluminium with Nanosecond Laser Pulses, A. Cortona, G. Daminelli, J. Krüger, P. Meja, M. Autric, W. Kautek

PT-57 Dynamics of fs-Laser Excited Surfaces near the Ablation Threshold, Vasily V. Temnov, K. Sokolowski-Tinten, D. von der Linde

PT-58 Femtosecond Lasers as Novel Tool in Dental Surgery, J. Serbin, T. Bauer, C. Fallnich, A. Kasenbacher and W. H. Arnold

PT-59 Heat Effects of Metals Ablated with Femtosecond Laser Pulses, Yoichi Hirayama and Minoru Obara

PT-60 Safety for Applications of Femtosecond-Laser-Technology (“SAFEST”) — A New Joint Project, W. Kautek, M. Goede, A. Fiedler, E. Heberer, A. Stingl, C. Spielmann, M. Brose, G. Grabner

PT-61 Engineering of a Magnetic Anisotropy using Nano-Particles Embedded in Nano-Multilayer Structures by PLD, In-Joon Jeon, Dong-Wook Kang, Dong-Eon Kim, Dong-Hyun Kim, Sug-Bong Choe and Sung-Chul Shin

PT-62 Electrical Property and Size Distribution of Gold Nanoparticles in a Film Produced by Gas Deposition Using Laser Ablation Method, Yuji Kawakami, Takanumi Seto, Toshinobu Yoshida and Eiichi Ozawa

PT-63 Growth Dynamics of Single-Wall Carbon Nanotubes and Nanohorn Aggregates by CO₂ Laser Vaporization at Room Temperature, F. Kokai, K. Takahashi, D. Kasuya, M. Yudasaka and S. Iijima

PT-64 Nanocapsules and Nanoballoons of Boron and Boron Nitride Prepared by the Synchronized Laser-Plasma Vaporization Deposition, Shojiro Komatsu, Yoshiaki Shimizu, Yusuke Moriyoshi, Katsuyuki Okada, Mamoru Mitomo

PT-65 Cluster Ion Control by Simultaneous Irradiations Femtosecond Laser and Nanosecond Laser Pulse, H. Kamada, Y. Hiratani and K. Toyoda

PT-66 Effects of Surface Passivation of Silicon Nanocrystallites Prepared by Pulsed Laser Ablation, K. Yoshida, M. Inada, K. Jyuohji, I. Umezu and A. Sugimura

PT-67 Synthesis of Size-Selected TiO_x Nanoparticles, M. Hirasawa, T. Seto, S. Kano, N. Aya and H. Shimura

PT-68 Surface Manipulation on the Atomic Scale Using Laser Light, D. Martin, T. Jacob, F. Stietz, B. Fricke, F. Träger

PT-69 Effects of Hydrogen on Si Nanoparticles Formed by Pulsed Laser Ablation, M. Inada, H. Nakagawa, I. Umezu and A. Sugimura

PT-70 Functional Impurity Doping and Surface Modification of Si Nanocrystals, T. Makimura, Y. Yamamoto, S. Mitani, T. Mizuta, C. Q. Li, D. Takeuchi and K. Murakami

PT-71 Desorption Dynamics of Previously Deposited Si Nanoparticles —Droplet-Free Deposition of Si Nanoparticle Films—, D. Takeuchi, T. Mizuta, T. Makimura, S. Yoshida, M. Fujita, K. Hata, H. Shigekawa and K. Murakami

PT-72 Selective Adsorption and Patterning of Si Nanoparticles Fabricated by Laser Ablation on Functionalized Self-Assmbled Monolayer, M. Fujita, S. Yoshida, K. Hata, T. Makimura, K. Murakami and H. Shigekawa

PT-73 Fabrication of Nanoparticles of Anatase TiO₂ by Oxygen-Supplied Pulsed Laser Deposition, N. Okubo, T. Nakazawa, Y. Katano and I. Yoshizawa

PT-74 Photoelectrochemical Behavior of TiO₂-Based Nanocomposite Thin Films Prepared by Pulsed Laser Deposition, Jong-Won Yoon, Takeshi Sasaki and Naoto Koshizaki

PT-75 Laser Ablation of Iron Oxide in Various Ambient Gases, Leszek Zbroniec, Takeshi Sasaki and Naoto Koshizaki

PT-76 Oxidation of Titanium through Nd:YAG Laser Irradiation, A. Pérez del Pino, P. Serra and J. L. Morenza

PT-77 Ripples Revisited, Juergen Reif, Florenta Costache, Matthias Henyk

PT-78 Influence of Laser Parameters on the Nitriding of Low Carbon Steel, S. Duhalde, C. Copola, F. Audebert, I. Avram, T. Pérez, Ph. Delaporte and M. Sentis

PT-79 Micromachining Parameters and Mechanisms of Typical Solid Materials by Diode-Pumped YAG Laser, Xiaoyan Zeng, H. Weber and B. Ozygus

PT-80 Particle on the Surface: Feedback Effects in Dry Laser Cleaning, B. S. Luk'yanchuk, Y. W. Zheng, Y. F. Lu

PT-81 Initial Stage of Etching in Fused Silica by Laser Ablation of Pyrene Solution with Nanosecond XeCl Excimer Laser, Y. Yasui, Y. Kawaguchi, H. Niino and A. Yabe

PT-82 Dynamics of Nanosecond Dry Laser Cleaning, N. Arnold, G. Schrems, T. Mühlberger and D. Bäuerle

PT-83 Ablation of Biological Bone Tissue by Femtosecond Radiation: Emission of Ionic and Neutral Species, W. Husinsky, A. Daskalova, R. Schmitzer and G. Betz

PT-84 (withdrawn)

PT-85 Time-Resolved Study of Water Contribution to Excimer Laser Ablation of Collagen, Katsunori Tsunoda, Masaru Sugiura, Hirofumi Yajima, Tadahiro Ishii, Hiroshi Itoh and Yutaka Nagai

PT-86 Incubation and Ablation Behaviour of Polydimethylsiloxane for 266 nm Irradiation, V. -M. Graubner, M. Hauer, R. Jordan, T. Lippert, O. Nuyken, B. Schnyder, A. Wokaun

PT-87 Influence of the Irradiation Wavelength on the Ablation Process of Designed Polymers, M. Hauer, T. Dickinson, S. Langford, T. Lippert, A. Wokaun

PT-88 Laser Induced Morphological Change of Polystyrene Film, Takashi Mito and Hiroshi Masuhara

PT-89 Laser-Induced Decomposition and Ablation Dynamics of Triazene and Its Cross-Linking Polymer Films Studied by Nanosecond Interferometry, Kazufumi Tomita, Takuji Tada, Hiroshi Masuhara and Thomas Lippert

PT-90 Investigation of KrF Excimer Laser Ablation of Polymers Using a Microphone, Jörg Krüger, Hiroyuki Niino and Akira Yabe

PT-91 Is the VUV Laser Ablation of Polymers a Pure Photochemical Process ?, M. C. Castex and N. Bityurin

PT-92 Heterogeneous Laser Ablation of Polystyrene Film was Reduced by Coating Organic Photovoltaic Material, Keiji Nagai, Hidetsugu Yoshida, Takayoshi Norimatsu, Noriaki Miyanaga, Yasukazu Izawa and Tatsuhiko Yamanaka

PT-93 Steam Assisted Laser Ablation and Its Signal Diagnostics, M. H. Hong, M. L. Koh, S. Zhua and Y. F. Lu

PT-94 Laser Ablation of Titanium Surfaces, M. Li, B. Nemetski, K. Hartke, S. Allameh, M. Keirstead and W. O. Soboyejo

PT-95 Generation of the A-centres at the Surface of CdTe(Cl) by YAG:Nd Laser Radiation., A. Medvid', Y. Hatanaka, D. Korbutjak and S. Krilyuk

PT-96 Nitrogen Doping and Structural Properties of Amorphous Carbon Films Deposited by Pulsed Laser Ablation, M. Rusop, X. M. Tian, S. M. Mominuzzaman, T. Soga, T. Jimbo and M. Umeno

PT-97 NO_x Gas Sensing Properties of Tungsten Oxide Thin Films Synthesized by

Pulsed Laser Deposition Method,

Hiroharu Kawasaki, Jun Namba, Keitarou Iwatsuki, Yoshiaki Suda, Kenji Wada, Kenji Ebihara and Tamiko Ohshima

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