

MONDAY 20 JULY - SESSION DETAILS

MO-TU-1A / Monday Tutorial Session 1A
Auditorium AV 01.12, 08:00 - 09:30*Chair: Helion Vargas*

08:00 - 08:45 *MO-TU-1A-1*
INVESTIGATION OF LAYERED SYSTEMS AND TEMPERATURE-DEPENDENT THERMOPHYSICAL CHARACTERIZATION BY PHOTOTHERMAL METHODS WITH PERIODIC EXCITATION
M. Chirtoc, Université de Reims Champagne Ardenne, REIMS, France

08:45 - 09:30 *MO-TU-1A-2*
PHOTOTHERMAL INVESTIGATION OF LOCAL AND DEPTH DEPENDENT MAGNETIC PROPERTIES
J. Pelzl, Ruhr-University, BOCHUM, Germany

MO-TU-1B / Monday Tutorial Session 1B
Auditorium AV 00.17, 08:00 - 09:30*Chair: Walter Arnold*

08:00 - 08:45 *MO-TU-1B-1*
FROM PHOTOTHERMAL RADIOMETRY TO LOCKIN THERMOGRAPHY METHODS
G. Busse, Institute of Polymer Technology (IKT), Universität Stuttgart, STUTTGART, Germany

08:45 - 09:30 *MO-TU-1B-2*
LASER ULTRASONICS: ADVANCES IN TECHNOLOGY AND APPLICATIONS
A. Blouin, National Research Council, BOUCHERVILLE, Canada

MO-TU-1C / Monday Tutorial Session 1C
Auditorium AV 02.17, 08:00 - 09:30*Chair: Stephen Bialkowski*

08:00 - 08:45 *MO-TU-1C-1*
FLASH THERMOGRAPHY: FROM THEORY TO IMPLEMENTATION
S Shepard, Thermal Wave Imaging, Inc., FERNDALE, MI, United States of America

08:45 - 09:30 *MO-TU-1C-2*
PHOTOACOUSTIC INFRARED SPECTROSCOPY OF SOLIDS
K.H. Michaelian, Natural Resources Canada, DEVON, Canada

MO-TU-2A / Monday Tutorial Session 2A
Auditorium AV 01.12, 10:00 - 12:15*Chair: Jacob Philip*

10:00 - 10:45 *MO-TU-2A-1*
BROADENING EFFECTS AND ERGODICITY IN DEEP LEVEL PHOTO-THERMAL SPECTROSCOPY OF DEFECT STATES IN SEMI-INSULATING GAAS: A COMBINED TEMPERATURE-, PULSE-RATE- AND TIME-DOMAIN STUDY OF DEFECT STATE KINETICS
A. Mandelis, University of Toronto, TORONTO, Canada

10:45 - 11:30 *MO-TU-2A-2*
LATERAL HEAT DIFFUSION AND PHOTOTHERMAL MICROSCOPY
D. Fournier¹, ¹ESPCI, PARIS, France
C. Fréty², ²ESPCI, PARIS, France

11:30 - 12:15 *MO-TU-2A-3*
THERMOPHYSICAL CHARACTERIZATION OF MATERIALS BY PHOTOTHERMAL CALORIMETRY: ADVANTAGE AND LIMITS
M. Marinelli, University of Rome „Tor Vergata“, ROME, Italy

MO-TU-2B / Monday Tutorial Session 2B

Auditorium AV 00.17, 10:00 - 12:15

Chair: Bernard Bonello

- 10:00 - 10:45 *MO-TU-2B-1*
NONLINEAR PHOTOACOUSTICS: FROM SOLITONS TO BOND-BREAKING BY NANO- AND PICOSECOND ULTRASONICS
P. Hess, University of Heidelberg, HEIDELBERG, Germany
- 10:45 - 11:30 *MO-TU-2B-2*
PICOSECOND ULTRASONICS: AN OVERVIEW
B. Perrin, Université Pierre & Marie Curie, PARIS, France
- 11:30 - 12:15 *MO-TU-2B-3*
LASER GENERATION OF SHEAR ELASTIC WAVES
V. E. Gusev, Université du Maine, LE MANS, France

MO-TU-2C / Monday Tutorial Session 2C

Auditorium AV 02.17, 10:00 - 12:15

Chair: Markus Sigrist

- 10:00 - 10:45 *MO-TU-2C-1*
TRACE GAS SENSING BY THE PHOTOACOUSTIC TECHNIQUE
A. Miklos, Steinbeis Transfer Center Applied Acoustics, STUTTGART, Germany
- 10:45 - 11:30 *MO-TU-2C-2*
LASER BASED QUARTZ ENHANCED PHOTOACOUSTIC SPECTROSCOPY FOR TRACE GAS SENSING: PRINCIPLES, INSTRUMENTATION AND APPLICATIONS
F. Tittel¹, L. Dong¹, J. Doty¹, A. Kosterev¹, R. Lewicki¹, S. So², D. Thomazy¹, G. Wysocki²
¹Rice University, HOUSTON, TX, United States of America
²Princeton University, PRINCETON, United States of America
- 11:30 - 12:15 *MO-TU-2C-3*
CHEMICAL ANALYSIS BY THERMAL LENS SPECTROMETRY
M. Franko, University of Nova Gorica, NOVA GORICA, Slovenia

MO-OPC / Monday Opening Ceremony

Auditorium Max Weber, 13:45 - 14:30

MO-PL-1 / Monday Plenary Session 1

Auditorium Max Weber, 14:30 - 15:15

Chair: Michael Wübbenhorst

- 14:30 - 15:15 *MO-PL-1*
VIZUALIZING DYNAMICS IN POLYMER SYSTEMS BY WATCHING FLUORESCENCE OF SINGLE MOLECULES
J. Hofkens, A. Deres, E. Braeken, H. Uji-i, K.U.Leuven, HEVERLEE, Belgium

MO-PA-1A / Monday Parallel Session 1A: Phonon Phenomena and Ultrafast Phenomena

Auditorium Max Weber, 15:45 - 17:10

Chair: Taro Toyoda

- 15:45 - 16:10 *MO-PA-1A-1 - Invited Lecture*
DYNAMICS OF COHERENT ACOUSTIC AND OPTICAL PHONON OSCILLATIONS IN NANOSTRUCTURES STUDIED BY A FEMTOSECOND PUMP-PROBE TECHNIQUE
A. A. Kolomenski¹, S. Jerebtsov², H. Schuessler³
¹TAMU, COLLEGE STATION, United States of America
²Max-Planck-Institut für Quantenoptik, Hans-Kopfermann-Str. 1, D-85748 Garching, GARCHING, Germany
³Texas A&M University, COLLEGE STATION, United States of America

- 16:10 - 16:30 *MO-PA-1A-2*
EXPERIMENTAL AND THEORETICAL STUDY OF SURFACE ACOUSTIC MODES IN PERIODICALLY PATTERNED THIN FILM STRUCTURES ON SILICON
A.A. Maznev, A.G. Every, University of Witwatersrand, JOHANNESBURG, South Africa
- 16:30 - 16:50 *MO-PA-1A-3*
LATTICE DYNAMICS DURING A STRUCTURAL PHASE TRANSITION IN YVO₃
D.A. Mazurenko¹, P. Capel², J. Dijkhuis², G. Blake¹, A. Nugroho¹, N. Mufti¹, T. Palstra¹, E. Landahl³, D. Walko³, D. Arms³, P. Loosdrecht¹
¹Zernike Institute for Advanced Materials, GRONINGEN, The Netherlands
²University of Utrecht, UTRECHT, The Netherlands
³Argonne National Laboratory, ARGONNE, United States of America
- 16:50 - 17:10 *MO-PA-1A-4*
COLLECTIVE DYNAMICS IN WATER: ANOMALOUS BEHAVIOUR OF STRUCTURAL RELAXATION TIME
F. Bencivenga¹, A. Cimattoribus², A. Gessini¹, M.G. Izzo², C. Masciovecchio¹
¹Sincrotrone trieste S.C.p.A., BASOVIZZA (TS), Italy
²Università di Trieste, TRIESTE, Italy

MO-PA-1B / Monday Parallel Session 1B: Micro-Electro-Mechanical Systems (MEMS)

Auditorium Jean Monnet, 15:45 - 17:30
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<i>Chair: Sridhar Krishnaswamy</i>

- 15:45 - 16:10 *MO-PA-1B-1 - Invited Lecture*
SUPERHETERODYNE LASER ULTRASONICS AND THIN FILM SPECTROSCOPY
W. Murray¹, S. Bramhavar¹, A. Sampathkumar¹, B. Pouet²
¹Boston University, BOSTON, United States of America
²Bossa Nova Technologies, VENICE, United States of America
- 16:10 - 16:30 *MO-PA-1B- 2*
PHOTOTHERMAL ELASTIC VIBRATION METHOD: INVESTIGATION OF THE MICRO-ELECTRO-MECHANICAL-SYSTEMS
D. Todorovic¹, B. Cretin², Y. Song³, P. Vairac²
¹Institute for Multidisciplinary Researches, BELGRADE, Serbia
²FEMTO-ST, Université de Franche-Comté, CNRS, ENSMM, UTBM, BESANÇON, France
³MOE Lab for Strength and Vibration, School of Aerospace, Xi'an Jiaotong Unvers, XI'AN, China
- 16:30 - 16:50 *MO-PA-1B-3*
PLASMA AND THERMAL WAVES IN A SEMICONDUCTING CANTILEVER PHOTOGENERATED BY A FOCUSED LASER BEAM
D. Todorovic¹, Y. Song²
¹Institute for Multidisciplinary Researches, BELGRADE, Serbia
²MOE Lab for Strength and Vibration, School of Aerospace, Xi'an Jiaotong Unvers, XI'AN, China
- 16:50 - 17:10 *MO-PA-1B-4*
TIME-RESOLVED COHERENT ACOUSTIC DYNAMICS OF FREE-STANDING MEMBRANES
A. Bruchhausen¹, F. Hudert¹, M. Hettich¹, R. Gebis¹, A. Bartels¹, A. Mlayah², J.-R. Huntzinger³, R. Waitz¹, O. Schecker¹, E. Scheer¹, T. Dekorsy¹
¹Universität Konstanz, KONSTANZ, Germany
²CEMES-CNRS, TOULOUSE, France
³Université Montpellier, MONTPELLIER, France
- 17:10 - 17:30 *MO-PA-1B-5*
STUDY OF NARROWBAND HIGH EFFICIENCY MEMS OPTICAL TRANSDUCERS FOR GENERATION OF LONGITUDINAL WAVES
X. Chen, T. Stratoudaki, S. Sharples, M. Clark, University of Nottingham, NOTTINGHAM, United Kingdom

MO-PA-1C / Monday Parallel Session 1C: Thermography
Auditorium AV 01.12, 15:45 - 17:30

Chair: Josef Pelzl

- 15:45 - 16:10 *MO-PA-1C-1 - Invited Lecture*
PHOTOTHERMAL INFRARED THERMOGRAPHY APPLIED TO MATERIALS OF MECHANICAL INTEREST
H. Pron, C. Bissieux, Université de Reims, REIMS CEDEX 2, France
- 16:10 - 16:30 *MO-PA-1C-2*
THERMAL CHARACTERIZATION OF COATING-SUBSTRATE SAMPLES AND ANISOTROPIC SUBSTRATE SAMPLES BY PHOTOTHERMAL IR RADIOMETRY AND INFRARED LOCK IN THERMOGRAPHY
C. Glorieux, R.N. Rajesh, P. Menon, C.S.P. Tripathi, G. Kalogiannakis, ATF-K.U. Leuven, HEVERLEE, Belgium
- 16:30 - 16:50 *MO-PA-1C-3*
APPROACH OF THE MEASUREMENT OF THERMAL DIFFUSIVITY OF MURAL PAINTINGS BY FRONT FACE PHOTOTHERMAL RADIOMETRY
J.L. Bodnar¹, J.C. Candore¹, V. Detalle², P. Grossel¹
¹University of Reims, REIMS, France
²LRMH, CHAMPS SUR MARNE, France
- 16:50 - 17:10 *MO-PA-1C-4*
PULSED THERMOGRAPHY IN MULTIPLE INFRARED SPECTRAL BANDS
U. Netzelmann, M. Abuhamad, Fraunhofer IZFP, SAARBRÜCKEN, Germany
- 17:10 - 17:30 *MO-PA-1C-5*
FLASH THERMOGRAPHY TO DETERMINE THE MICROSTRUCTURE OF TBC
P. Bison¹, F. Cernuschi²
¹CNR, PADOVA, Italy
²CESIRICERCA, MILANO, Italy

MO-PA-1D / Monday Parallel Session 1D: Semiconductors
Auditorium AV 00.17, 15:45 - 17:30

Chair: Hassan Talaat

- 15:45 - 16:10 *MO-PA-1D-1 - Invited Lecture*
ACCURATE DETERMINATION OF ELECTRONIC TRANSPORT PROPERTIES OF SEMICONDUCTOR WAFERS WITH SPATIALLY-RESOLVED PHOTO-CARRIER TECHNIQUES
B. Li, X. Liu, W. Li, X. Zhang, Institute of Optics and Electronics, Chinese Academy of Sciences, CHENGDU, China
- 16:10 - 16:30 *MO-PA-1D-2*
CHARACTERIZATION OF Ge₂Sb₂Te₅ AND RELATED INTERFACES BY THE PHOTOTHERMAL RADIOMETRY TECHNIQUE
J.-L. Battaglia¹, A. Cappella², A. Kusiak², V. Schick², C. Wiemer³, M. Longo³, E. Varesi⁴
¹Laboratory TREFLE, TALENCE, France
²TREFLE, TALENCE, France
³MDM, AGATE (MILAN), Italy
⁴Numonyx, AGATE (MILAN), Italy
- 16:30 - 16:50 *MO-PA-1D-3*
THEORY OF PHOTOMODULATED OPTICAL REFLECTANCE ON ACTIVE DOPING PROFILES IN SILICON
J. Bogdanowicz¹, F. Dortu¹, T. Clarysse¹, W. Vandervorst¹, D. Shaughnessy², A. Salnick²
¹IMEC, LEUVEN, Belgium
²KLA-Tencor, SAN JOSE, United States of America

- 16:50 - 17:10 *MO-PA-1D-4*
ELECTRON DYNAMICS IN GAN WAFER INCLUDING DEFECTS WITH AN INHOMOGENEOUS DISTRIBUTION IN THE DEPTH DIRECTION
Y. Ohashi¹, K. Katayama¹, T. Toyoda², S. Shen²
¹Chuo University, TOKYO, Japan
²The University of Electro-Communications, TOKYO, Japan
- 17:10 - 17:30 *MO-PA-1D-5*
DEEP LEVEL PHOTO-THERMAL SPECTROSCOPY OF DEFECT STATES IN SEMI-INSULATING GAAS: A COMPREHENSIVE STUDY OF THE TEMPERATURE AND PULSE-RATE DOMAIN SPECTRA UNDER DIFFERENT EXCITATION WAVELENGTHS
A. Mandelis, University of Toronto, TORONTO, Canada

MO-PA-1E / Monday Parallel Session 1E: Medical Ultrasound Tomography

Auditorium AV 02.17, 15:45 - 17:15

<i>Chair: Gerald Diebold</i>

- 15:45 - 16:10 *MO-PA-1E-1 - Invited Lecture*
PHOTOACOUSTIC TOMOGRAPHY USING INTEGRATING LINE DETECTORS
P. Burgholzer¹, T. Berer¹, H. Gruen¹, J. Bauer-Marschallinger¹, R. Nuster², G. Paltauf²
¹RECENDT, LINZ, Austria
²KFU, GRAZ, Austria
- 16:10 - 16:30 *MO-PA-1E-2*
THREE DIMENSIONAL PHOTOACOUSTIC IMAGING USING FIBER-BASED LINE DETECTORS
H. Grün¹, T. Berer¹, J. Bauer-Marschallinger¹, R. Nuster², G. Paltauf², P. Burgholzer¹
¹RECENDT GmbH, LINZ, Austria
²University of Graz, GRAZ, Austria
- 16:30 - 16:50 *MO-PA-1E-3*
NOVEL COMBINED OPTOACOUSTIC AND LASER-ULTRASONIC FOCUSED TRANSDUCER ARRAY
V.A. Simonova¹, V.Y. Panchenko¹, A.A. Karabutov²
¹Joint Institute on Laser and Information Technologies Russian Academy of Science, SHATURA, MOSCOW REGION, Russian Federation
²Moscow State University International Laser Center, MOSCOW, Russian Federation
- 16:50 - 17:15 *MO-PA-1E-4 - Invited Lecture*
LASER OPTOACOUSTIC AND ULTRASONIC IMAGING SYSTEMS FOR PRECLINICAL AND CLINICAL APPLICATIONS
A. Oraevsky, Fairway Medical Technologies, HOUSTON, United States of America

MO-PL-2 / Monday Plenary Session 2

Auditorium Max Weber, 17:45 - 18:30
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<i>Chair: Bernard Perrin</i>

- 17:45 - 18:30 *MO-PL-2*
'MAKING THE MOLECULAR MOVIE': FROM WARM DENSE MATTER TO THE STRUCTURE-FUNCTION CORRELATION IN BIOLOGY
D. Miller, University of Toronto, TORONTO, Canada

MO-POS / Monday Poster Session

Alma 2, 18:30 - 20:00

All posters will be on display for the duration of the conference. **Even-numbered** posters will be presented during the poster session of Monday.

TUESDAY 21 JULY- SESSION DETAILS

TU-PL-1 / Tuesday Plenary Session 1
Auditorium Max Weber, 08:00-09:30
Chair: *Gerald Diebold*

- 08:00 - 08:45 *TU-PL-1-1*
SUPERDEPTH PHOTOACOUSTIC MICROSCOPY AND COMPUTED TOMOGRAPHY
L. Wang, Washington University, ST. LOUIS, United States of America
- 08:45 - 09:30 *TU-PL-1-2*
COHERENT PHONON SPECTROSCOPY ACROSS THE BRILLOUIN ZONE
K.A. Nelson, Massachusetts Institute of Technology, CAMBRIDGE, United States of America

TU-PA-1A / Tuesday Parallel Session 1A: Phase Transitions
Auditorium Max Weber, 10:00 - 12:15
Chair: *Massimo Marinelli*

- 10:00 - 10:25 *TU-PA-1A-1 - Invited Lecture*
THERMOACOUSTIC DETECTION OF THE MAGNETOCALORIC EFFECT IN GdGeSi AND RELATED ALLOYS
A.M. Mansanares¹, A.O. Guimaraes², A.M.G. Carvalho³, A.A. Coelho⁴, S. Gama⁴, M.J.M. Pires³, E.C. Silva²
¹Campinas State University, CAMPINAS (SP), Brazil
²Laboratório de Ciências Físicas, UENF, CAMPOS DOS GOYTACAZES (RJ), Brazil
³Inst. Nacional de Metrologia, Normalização e Qualidade Industrial, DUQUE DE CAXIAS (RJ), Brazil
⁴Instituto de Física Gleb Wataghin, Universidade Estadual de Campinas, CAMPINAS (SP), Brazil
- 10:25 - 10:50 *TU-PA-1A-2 - Invited Lecture*
NEW DEVELOPMENTS IN PHOTOPYROELECTRIC CALORIMETRY FOR PHASE TRANSITION STUDIES IN LIQUID CRYSTALS
F. Mercuri, University of Rome, Tor Vergata, ROME, Italy
- 10:50 - 11:15 *TU-PA-1A-3 - Invited Lecture*
THERMAL DIFFUSION ACROSS CRITICAL POINTS IN THE SOLID PHASE EMPLOYING PHOTOPYROELECTRIC TECHNIQUE
J. Philip, Cochin University of Science and Technology, COCHIN, India
- 11:15 - 11:35 *TU-PA-1A-4*
STUDY OF THE FERROMAGNETIC TRANSITION OF A NANO-SCALE SAMPLES BY THE PTD TECHNIQUE
T. Ghrib, IPEIN Nabeul, EL FAHS, Tunisia
- 11:35 - 11:55 *TU-PA-1A-5*
THERMAL ANALYSIS OF THE PNIPAAm- PAAm MIXTURES BY A PHOTOPYROELECTRIC TECHNIQUE
G. Akin Evingur¹, P. Menon², R. Rajesh², M. Kuriakose², C. Glorieux²
¹Istanbul Technical University, ISTANBUL, Turkey
²Katholieke Universiteit Leuven, LEUVEN, Belgium
- 11:55 - 12:15 *TU-PA-1A-6*
LATENT HEAT EVALUATION WITH PHOTOPYROELECTRIC CALORIMETRY
A. Oleaga, A. Salazar, Escuela Tecnica Superior de Ingenieria, Universidad del Pais Vasco, BILBAO, Spain

TU-PA-1B / Tuesday Parallel Session 1B: Thermal Lens Spectroscopy and Analytical Chemistry
Auditorium Jean Monnet, 10:00 - 12:15 *Chair: Andreas Mandelis*

- 10:00 - 10:25 *TU-PA-1B-1 - Invited Lecture*
APPLICATIONS AND OUTLOOKS OF PHOTOTHERMAL SPECTROSCOPY IN ANALYTICAL CHEMISTRY
M.A. Proskurnin, D. Nedosekin, Moscow State University, MOSCOW, Russian Federation
- 10:25 - 10:50 *TU-PA-1B-2 - Invited Lecture*
MATERIAL CHARACTERIZATION WITH TOP-HAT CW LASER INDUCED PHOTOTHERMAL TECHNIQUES
J. Shen¹, N. Astrath¹, M. Baesso², F. Astrath¹, L. Malacarne², P. Pedreira², A. Bento², J. Zhou¹
¹National Research Council Canada, VANCOUVER, Canada
²Universidade Estadual de Maringá, MARINGÁ, Brazil
- 10:50 - 11:15 *TU-PA-1B-3 - Invited Lecture*
THERMAL LENS AND INTERFEROMETRIC MEASUREMENTS WITH TEMPERATURE SCANNING TO STUDY BIOLOGICAL SAMPLES
M.L. Baesso, Universidade Estadual de Maringá, MARINGÁ, Brazil
- 11:15 - 11:35 *TU-PA-1B-4*
ULTRAVIOLET LASER-EXCITED THERMAL LENS DETECTION FOR ANALYTICAL CHEMISTRY
S. Hirashima, A. Harata, Kyushu University, KASUGA, Japan
- 11:35 - 11:55 *TU-PA-1B-5*
JOINT OPTOACOUSTIC AND THERMAL-LENS STUDIES IN ANALYTICAL CHEMISTRY
M.A. Proskurnin¹, V. Senyuta¹, O. Ovchinnikov², I. Veselova¹, S. Egerev²
¹Moscow State University, MOSCOW, Russian Federation
²N.N. Andreyev Acoustics Institute, MOSCOW, Russian Federation
- 11:55 - 12:15 *TU-PA-1B-6*
THERMAL LENS SPECTROSCOPY OF WATER
T. Catunda, R. Cruz, Inst. de Física de Sao Carlos (IFSC), SAO CARLOS, SP, Brazil

TU-PA-1C / Tuesday Parallel Session 1C: Non-Destructive Testing and Evaluation
Auditorium AV 01.12, 10:00 - 11:35 *Chair: Gerd Busse*

- 10:00 - 10:20 *TU-PA-1C-1*
ASSISTANCE TO THE RESTORATION OF MURAL PAINTINGS BY INFRARED PHOTOTHERMAL RADIOMETRY
J.L. Bodnar¹, J.C. Candore¹, P. Grossel¹, V. Detalle²
¹University of Reims, REIMS, France
²LRMH, CHAMPS SUR MARNE, France
- 10:25 - 10:45 *TU-PA-1C-2*
NONDESTRUCTIVE TESTING OF SOLIDS BY FOCUSED LASER ULTRASOUND INDUCED IN FLUIDS
P. Hess, V. Kozhushko, University of Heidelberg, HEIDELBERG, Germany
- 10:45 - 11:10 *TU-PA-1C-3*
CRACK DETECTION BY PULSED LASER SPOT IMAGING THERMOGRAPHY
D. Almond, T. Li, B. Weekes, A. Rees, University of Bath, BATH, United Kingdom

11:15 - 11:35 *TU-PA-1C-4*
CRACK IMAGING BY NONLINEAR MIXING OF PHOTOTHERMALLY EXCITED ELASTIC FIELDS
N. Chigarev, J. Zakrzewski, V. Tournat, V. Gusev, Université du Maine, LE MANS, France

TU-PA-1D / Tuesday Parallel Session 1D: Biological Materials, Agricultural and Food Sciences Auditorium AV 00.17, 10:00 - 11:50	<i>Chair: Dane Bicanic</i>
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10:00 - 10:20 *TU-PA-1D-1*
SELF-CONSISTENT PHOTOACOUSTIC TECHNIQUES FOR THERMAL CHARACTERIZATION OF VEGETABLE OILS
J.A. Balderas-López¹, T. Monsiváis-Alvarado¹, J. Damián-Velázquez¹, J. Díaz-Reyes²
¹UPIBI-IPN, MÉXICO, D. F., Mexico
²CIBA-IPN, TLAXCALA, Mexico

10:25 - 10:45 *TU-PA-1D-2*
CALCIUM QUANTIFICATION IN RODENT FOOD BY PHOTOACOUSTIC TECHNIQUE
J.A. Balderas-López, L. Cuevas-Cosme, N. Alvarez-Barrientos, G. Ramírez-Sotelo, UPIBI-IPN, MÉXICO, D. F., Mexico

10:50 - 11:10 *TU-PA-1D-3*
TOWARDS THE COST-EFFECTIVE APPROACH TO THE DETECTION OF SEVERAL NUTRITIONALLY IMPORTANT ANTIOXIDANTS IN FRUIT
D.D. Bicanic¹, D. Dimitrovski², S. Luterotti³, O. Doka⁴, C. Van Twisk¹, I. Colic-Baric³
¹Wageningen University, WAGENINGEN, The Netherlands
²Ss Cyril and Methodius University, SKOPJE, Macedonia
³Zagreb University, ZAGREB, Croatia
⁴University of Western Hungary, MOSONMAGYAROVAR, Hungary

11:15 - 11:35 *TU-PA-1D-4*
THERMAL CHARACTERIZATION OF BIODIESEL FROM FAT ANIMAL USING PHOTOTHERMAL TECHNIQUES
M.P. Castro, A.M. Rocha, F. Machado, E. Zanelatto, M.S. Sthel, E.C. Silva, A.A. Andrade, UENF, CAMPOS DOS GOYTACAZES, Brazil

11:35 - 11:50 *TU-PA-1D-5*
EFFECT OF RESIDUE AND ANTIOXIDANT ON THERMAL DIFFUSIVITY OF BIODIESEL
S.M. Lima¹, M.S. Figueiredo¹, L.H.C. Andrade¹, A.R.L. Caires², S.L. Oliveira², F. Aristone³
¹Universidade Estadual de Mato Grosso do Sul, DOURADOS, Brazil
²Universidade Federal da Grande Dourados, DOURADOS, Brazil
³Universidade Federal de Mato Grosso do Sul, CAMPO GRANDE, Brazil

TU-PA-1E / Tuesday Parallel Session 1E: Medical Ultrasound Tomography

Auditorium AV 02.17, 10:00 - 12:15

Chair: Alexander Oraevsky

- 10:00 - 10:25 *TU-PA-1E-1 - Invited Lecture*
REAL-TIME, FULL-FIELD IMAGING OF PHOTOACOUSTIC GENERATED SIGNALS FOR BIOMEDICAL APPLICATIONS
O. Balogun¹, B. Regez¹, Hao F. Zhang, S. Krishnaswamy¹
¹Northwestern University, EVANSTON, United States of America
²University of Wisconsin-Milwaukee, MILWAUKEE, United States of America
- 10:25 - 10:50 *TU-PA-1E-2 - Invited Lecture*
DEVELOPMENT AND CHARACTERIZATION OF SPECIALIZED DETECTORS FOR PHOTOACOUSTIC IMAGING
G. Paltauf, Universitaet Graz, GRAZ, Austria
- 10:50 - 11:15 *TU-PA-1E-3 - Invited Lecture*
HIGH RESOLUTION SPECTROSCOPIC PHOTOACOUSTIC IMAGING FOR CHARACTERISING TISSUE STRUCTURE AND FUNCTION
P. Beard, UCL, LONDON, United Kingdom
- 11:15 - 11:35 *TU-PA-1E-4*
FULL FIELD DETECTION USING A CCD-CAMERA IN PHOTOACOUSTIC TOMOGRAPHY
R. Nuster¹, G. Zangerl², M. Haltmeier², O. Scherzer², G. Paltauf¹
¹Karl-Franzens-Universität Graz, GRAZ, Austria
²University of Innsbruck, INNSBRUCK, Austria
- 11:35 - 11:55 *TU-PA-1E-5*
OPUS - A COMBINED OPTACOUSTIC AND ULTRASOUND SYSTEM FOR MEDICAL IMAGING
C. Haisch¹, K. Zell¹, M. Vogel², R. Niessner¹
¹Technische Universität München, MUNICH, Germany
²GE Global Research - Europe, GARCHING B. MÜNCHEN, Germany
- 11:55 - 12:15 *TU-PA-1E-6*
PHOTOACOUSTIC IMAGING IN BOTH SOFT AND HARD BIOLOGICAL TISSUE
T. Li, R.J. Dewhurst, University of Manchester, MANCHESTER, United Kingdom

TU-PA-2A / Tuesday Parallel Session 2A: Glass Transition and Molecular Dynamics

Auditorium Max Weber, 13:45 - 15:05

Chair: Simone Napolitano

- 13:45 - 14:05 *TU-PA-2A-1 (in Book of Abstracts: TU-PA-3E-4)*
STUDY OF INTERNAL FIELD DISTRIBUTIONS IN BIOACTIVE GLASSES AND CONDUCTIVE LIQUIDS BY PYROELECTRIC SPECTROSCOPY
M. Wübbenhorst¹, B. Roling²
¹K.U.Leuven, LEUVEN, Belgium
²Department of Chemistry, University of Marburg, MARBURG, Germany
- 14:05 - 14:25 *TU-PA-2A-2*
GIGAHERTZ LONGITUDINAL AND SHEAR ACOUSTIC WAVES IN GLASS-FORMING LIQUIDS
C. Klieber¹, T. Pezeril², K. Manke¹, S. Andrieu³, K.A. Nelson¹
¹MIT, CAMBRIDGE, United States of America
²LPEC UMR-CNRS 6087, Université du Maine, LE MANS, France
³LPM UMR-CNRS 7556, Université H. Poincaré, VANDOEUVRE, France

14:25 - 14:45 TU-PA-2A-3
HYPERSOUND DAMPING IN VITREOUS SILICA MEASURED BY PICOSECOND ACOUSTICS

S. Ayrihac¹, A. Devos², P. Emery², M. Foret³, B. Ruffle³

¹IEMN, LILLE, France

²IEMN Dpt ISEN, LILLE, France

³LCVN, MONTPELLIER, France

14:45 - 15:05 TU-PA-2A-4
ACOUSTIC PHENOMENA AND HYDRODYNAMIC FLOW IN LIQUID FILLED NANOPOROUS GLASSES STUDIED BY TRANSIENT GRATING SPECTROSCOPY
R. Cucini, A. Taschin, P. Bartolini, R. Torre, Università di Firenze, SESTO FIORENTINO, Italy

TU-PA-2B / Tuesday Parallel Session 2B: Linear and Non-Linear Laser Ultrasonics

Auditorium Jean Monnet, 13:45 - 15:05

Chair: Peter Hess

13:45 - 14:05 TU-PA-2B-1
APPLICATION OF RECIPROCITY RELATIONS TO LASER-BASED ULTRASONICS
J. Achenbach, Northwestern University, EVANSTON, ILLINOIS, United States of America

14:05 - 14:25 TU-PA-2B-2
DETERMINATION OF THERMO-ELASTICAL PROPERTIES OF MULTILAYERED STRUCTURES, USING AN ALL-OPTICAL METHOD
R. Salenbien, R. Côte, C. Glorieux, KULeuven, HEVERLEE, Belgium

14:25 - 14:45 TU-PA-2B-3
SILICON WAFER CHARACTERISATION BY LASER ULTRASONICS AND NEUTRAL NETWORKS
F. Lefevre, F. Jenot, M. Ouaftouh, M. Duquennoy, M. Ourak, IEMN, VALENCIENNES, France

14:45 - 15:05 TU-PA-2B-4
KINETICS OF THE ACOUSTIC RESONANCES IN NONLINEAR-OPTICAL CRYSTALS DURING THE INTERACTION WITH THE SINGLE-MODE HIGH-POWER LASER RADIATION
A.V. Doronkin¹, A.V. Konyashkin², V.A. Tyrtshnyy¹, D.V. Myasnikov², O.A. Ryabushkin³
¹Moscow Institute of Physics and Technology, DOLGOPRUDNY, Russian Federation
²NTO „IRE-Polus,, FRYAZINO, Russian Federation
³Institute of Radio-engineering and Electronics of RAS, FRYAZINO, Russian Federation

TU-PA-2C / Tuesday Parallel Session 2C: Gas Photoacoustics

Auditorium AV 01.12, 13:45 - 15:05

Chair: Mladen Franko

13:45 - 14:05 TU-PA-2C-1
LED WATER VAPOUR SENSOR USING SIMULTANEOUS DUAL-FREQUENCY EXCITATION OF A RESONANT PHOTOACOUSTIC CELL
M.W. Sigrist, J. Rey, C. Romer, ETH Zurich, ZURICH, Switzerland

14:05 - 14:25 TU-PA-2C-2
ELECTROMECHANICAL FILM AS A PHOTOACOUSTIC DETECTOR
A. Manninen, J. Sand, J. Toivonen, R. Hernberg, Tampere University of Technology, TAMPERE, Finland

14:25 - 14:45 TU-PA-2C-3
DFB LASER DIODES FOR SENSING APPLICATIONS USING PHOTOACOUSTIC SPECTROSCOPY

J. Koeth, M. Fischer, M. Legge, J. Seufert, K. Rössner, Nanoplus GmbH, GERBRUNN, Germany

14:45 - 15:05 TU-PA-2C-4
PHOTOACOUSTIC DIAGNOSTICS OF UV DISSOCIATIVE KCL MOLECULES IN HIGH TEMPERATURE

T. Sorvajärvi, A. Manninen, J. Toivonen, J. Saarela, R. Hernberg, Tampere University of Technology, TAMPERE, Finland

TU-PA-2D / Tuesday Parallel Session 2D: Biomedical Investigations

Auditorium AV 00.17, 13:45 - 15:10

Chair: Mauro Luciano Baesso

13:45 - 14:05 TU-PA-2D-1
PHOTOACOUSTIC EVALUATION OF THE PENETRATION OF PIROXICAM GEL APPLIED WITH PHONOPHORESIS INTO HUMAN SKIN

P.R. Barja¹, F.L.F.D. Silveira¹, D. Acosta-Avalos²
¹UNIVAP, SAO JOSE DOS CAMPOS, Brazil
²CBPF, RIO DE JANEIRO, Brazil

14:05 - 14:25 TU-PA-2D-2
OPTO-THERMAL IN-VIVO SKIN HYDRATION MEASUREMENTS - A COMPARISON STUDY OF DIFFERENT MEASUREMENT TECHNIQUES

P. Xiao, London South Bank University, LONDON, United Kingdom

14:25 - 14:45 TU-PA-2D-3
THERMAL DIFFUSIVITY EFFECT IN OPTO-THERMAL SKIN MEASUREMENTS

P. Xiao, London South Bank University, LONDON, United Kingdom

14:45 - 15:10 TU-PA-2D-4 - **Invited Lecture**
OPTO-THERMAL RADIOMETRY FOR IN-VIVO NAIL MEASUREMENTS

P. Xiao, London South Bank University, LONDON, United Kingdom

TU-PA-2E / Tuesday Parallel Session 2E: Depth Profilometry

Auditorium AV 02.17, 13:45 - 15:10

Chair: Agustin Salazar

13:45 - 14:05 TU-PA-2E-1
THIN FILMS OF GADOLINIUM INVESTIGATED BY PHOTOTHERMALLY MODULATED MAGNETIC RESONANCE

A.M. Mansanares¹, M.E. Soffner², J.C.G. Tedesco², E.C. Silva³
¹Campinas State University, CAMPINAS (SP), Brazil
²Instituto de Física Gleb Wataghin, Universidade Estadual de Campinas, CAMPINAS (SP), Brazil
³Laboratório de Ciências Físicas, UENF, CAMPOS DOS GOYTACAZES (RJ), Brazil

14:05 - 14:25 TU-PA-2E-2
HARDNESS DEPTH PROFILING OF CASE HARDENED STEELS USING A THREE-DIMENSIONAL PHOTOTHERMAL TECHNIQUE

C. Wang, Soochow University, SUZHOU, China

14:25 - 14:45 TU-PA-2E-3
DEPTH-PROFILING OF INHOMOGENEOUS OPTICALLY TRANSPARENT MATERIALS BY PICOSECOND ACOUSTIC INTERFEROMETRY

V. E. Gusev¹, C. Mechri¹, P. Ruello¹, J.- M. Breteau¹, M. Baklanov², P. Verdonck²
¹Université du Maine, LE MANS, France
²IMEC, LEUVEN, Belgium

14:45 - 15:10 **TU-PA-2E-4 - Invited Lecture**
PHOTOTHERMAL DEPTH PROFILING IN SYNTHETIC OPALS
R. Li Voti, Sapienza Università di Roma, ROMA, Italy

TU-PA-3A / Tuesday Parallel Session 3A: Nanostructures and Ultrafast Phenomena
Auditorium Max Weber, 15:45 - 17:35

Chair: Bernard Perrin

15:45 - 16:10 **TU-PA-3A-1 - Invited Lecture**
TRANSIENT AND CRYOGENIC THERMAL IMAGING OF MICROREFRIGERATORS ON A CHIP
A. Shakouri, University of California Santa Cruz, SANTA CRUZ, United States of America

16:10 - 16:30 **TU-PA-3A-2**
PHOTOVOLTAIC AND ULTRAFAST CARRIER DYNAMIC PROPERTIES OF CDSE QUANTUM DOT-SENSITIZED SOLAR CELLS USING INVERSE OPTAL TiO₂ ELECTRODES
T. Toyoda, The University of Electro-Communications, TOKYO, Japan

16:30 - 16:50 **TU-PA-3A-3**
CHARACTERIZATION OF THERMAL PROPERTIES OF NANOCRYSTALLINE Si FILMS ADSORBED WITH CdSe QUANTUM DOTS USING PHOTOACOUSTIC TECHNIQUE
Q. Shen, J. Kogakura, Y. Kato, T. Toyoda, The University of Electro-Communications, TOKYO, Japan

16:50 - 17:10 **TU-PA-3A-4**
TERAHERTZ FREQUENCY MODULATION OF MICROCAVITY POLARITON RESONANCES
A.V. Scherbakov¹, T. Berstermann², A.V. Akimov¹, D.R. Yakovlev², N.A. Gippius³, B.A. Glavin⁴, I. Sagnes⁵, J. Bloch⁵, M. Bayer²
¹A.F. Ioffe Physical-Technical Institute, ST. PETERSBURG, Russian Federation
²Experimentelle Physik 2, Technische Universität Dortmund, DORTMUND, Germany
³Université Blaise Pascal, AUBIÈRE, France
⁴Institute of Semiconductor Physics, KIEV, Ukraine
⁵Laboratoire de Photonique et de Nanostructures, MARCOUSSIS, France

17:15 - 17:35 **TU-PA-3A-5**
NANOSCALE EFFECTS ON YOUNG'S MODULUS OF NANOIMPRINT POLYMERS MEASURED BY PHOTOACOUSTIC METROLOGY
C.M. Sotomayor Torres¹, T. Kehoe¹, J. Bryner², V. Reboud¹, J. Dual²
¹Institut Catala de Nanotecnologia, BELLATERRA, BARCELONA, Spain
²Centre of Mechanics, ETH, ZURICH, Switzerland

TU-PA-3B / Tuesday Parallel Session 3B: Nanophotonics
Auditorium Jean Monnet, 15:45 - 17:40

Chair: Peter Hess

15:45 - 16:10 **TU-PA-3B-1 - Invited Lecture**
ACOUSTICS WITH METAL NANOPARTICLES: FROM ENSEMBLES TO A SINGLE NANO-OBJECT
N. Del Fatti, V. Juve, H. Baida, A. Berthelot, A. Crut, P. Maioli, F. Vallee, Université Lyon 1, CNRS, VILLEURBANNE, France

- 16:10 - 16:30 *TU-PA-3B-2*
HETERODYNE HOLOGRAPHY APPLIED TO THE PHOTOTHERMAL DETECTION OF GOLD NANOPARTICLES
N. Warnasooriya¹, E. Absil¹, G. Tessier¹, F. Joud², M. Gross², M. Atlan³, S. Suck¹, D. Fournier⁴
¹ESPCI, PARIS, France
²LKB-ENS, PARIS, France
³ESPCI / CNRS, PARIS, France
⁴UPMC - ESPCI - CNRS, PARIS, France
- 16:30 - 16:50 *TU-PA-3B-3*
ACOUSTIC RESPONSE OF A SINGLE 500 NM GOLD PARTICLE REVEALED BY THE PICOSECOND ULTRASONICS TECHNIQUE
Y. Guillet¹, C. Rossignol¹, B. Audoin¹, G. Calbris², S. Ravaine²
¹Laboratoire de Mécanique Physique, BORDEAUX, France
²Centre de Recherche Paul Pascal, BORDEAUX, France
- 16:50 - 17:15 *TU-PA-3B-4 - Invited Lecture*
NANO-MICRO LEVEL THERMOPHYSICAL PROPERTIES SENSING TECHNIQUES AND THEIR APPLICATIONS: MICROSCALE MASS DIFFUSION SENSING OF MULTI-COMPONENT POLYMER SOLUTIONS BY Soret FORCED RAYLEIGH SCATTERING
Y. Nagasaka, Keio University, YOKOHAMA, Japan
- 17:15 - 17:40 *TU-PA-3B-5 - Invited Lecture*
SINGLE MOLECULE TRACKING IN LIVE NEURONS
Brahim Lounis and Cécile Leduc, Université Bordeaux 1 and CNRS, TALENCE CEDEX, France

TU-PA-3C / Tuesday Parallel Session 3C: Phonon Phenomena and Ultrafast Phenomena Auditorium AV 01.12, 15:45 - 17:35
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Chair: Vitaly Gusev

- 15:45 - 16:10 *TU-PA-3C-1 - Invited Lecture*
HIGH FREQUENCY COHERENT ACOUSTIC PHONONS IN NANOSTRUCTURED MATERIALS AND SYNTHETIC OPALS
P. Ruello¹, C. Mechri¹, D. Mounier¹, J.-M. Breteau¹, M. Baklanov², P. Verdonck², I. Povey³, S. Pemble³, S. Romanov³, V. Gusev¹
¹LPEC, Université du Maine, LE MANS, France
²IMEC, LEUVEN, Belgium
³Tyndall National Institute, CORK, Ireland
- 16:10 - 16:30 *TU-PA-3C-2*
OPTICALLY INDUCED PIEZO-GENERATION OF GHz COHERENT ACOUSTIC WAVES
P. Ruello, P. Babilotte, G. Girault, T. Pezeril, D. Mounier, J.-M. Breteau, V. Gusev, LPEC, Université du Maine, LE MANS, France
- 16:30 - 16:50 *TU-PA-3C-3*
COHERENT SHEAR PHONON GENERATION IN ORIENTATED WURTZITE SEMICONDUCTORS BY OPTO-PIEZOELECTRIC TRANSDUCTION
Y. Wen¹, T. Ko², T. Lu², H. Kuo², J.-I. Chyi³, C.-K. Sun¹
¹National Taiwan University, TAIPEI, Taiwan
²National Chiao Tung University, HINCHU, Taiwan
³National Central University, JHONGLI, Taiwan
- 16:50 - 17:10 *TU-PA-3C-4*
VIBRATIONS OF DUMBBELL NANOPARTICLES
L. Saviot¹, D. Murray²
¹Université de Bourgogne, DIJON, France
²University of British Columbia Okanagan, KELOWNA, Canada

- 17:15 - 17:35 *TU-PA-3C-5*
**PHOTOMODULATION RAMAN SPECTROSCOPY AS A PUMP-PROBE
 TECHNIQUE FOR SURFACES AND INTERFACES STUDY OF SEMICONDUCTORS**
 H. Talaat¹, T. El-Brollosy¹, S. Negm²
¹Ain Shams University, CAIRO, Egypt
²Benha University, CAIRO, Egypt

TU-PA-3D / Tuesday Parallel Session 3D: Biomedical Investigations
Auditorium AV 00.17, 15:45 - 17:35

Chair: Mladen Franko

- 15:45 - 16:10 *TU-PA-3D-1 - Invited Lecture*
**PULSED PHOTOTHERMAL PROFILING OF WATER-BASED SAMPLES USING A
 SPECTRALLY COMPOSITE RECONSTRUCTION APPROACH**
 B. Majaron, M. Milanic, Jozef Stefan Institute, LJUBLJANA, Slovenia
- 16:10 - 16:30 *TU-PA-3D-2*
**NEW BACKWARD MODE OPTOACOUSTIC TECHNIQUE FOR LOCAL
 MEASUREMENT OF THE LIGHT ABSORPTION COEFFICIENT IN BIOLOGICAL
 TISSUE**
 I. Pelivanov¹, M. Barskaya², A. Karabutov³, N. Podymova⁴
¹M.V. Lomonosov Moscow State University, MOSCOW, Russian Federation
²Physics Department of M.V. Lomonosov Moscow State University, MOSCOW, Russian
 Federation
³International Laser Center of Moscow State University, MOSCOW, Russian Federation
⁴Physics Department of Moscow State University, MOSCOW, Russian Federation
- 16:30 - 16:50 *TU-PA-3D-3*
**DENTAL DIAGNOSTIC CLINICAL INSTRUMENT ('CANARY') DEVELOPMENT
 USING PHOTOTHERMAL RADIOMETRY AND MODULATED LUMINESCENCE**
 A. Mandelis, University of Toronto, TORONTO, Canada
- 16:50 - 17:10 *TU-PA-3D-4*
**PHOTOTHERMAL RADIOMETRY AND MODULATED LUMINESCENCE
 EXAMINATION OF DEMINERALIZED AND REMINERALIZED LESIONS**
 A. Mandelis, University of Toronto, TORONTO, Canada
- 17:15 - 17:35 *TU-PA-3D-5*
**WAVELENGTH-MODULATED DIFFERENTIAL LASER PHOTOTHERMAL
 RADIOMETER FOR BLOOD GLUCOSE MEASUREMENTS**
 A. Mandelis, University of Toronto, TORONTO, Canada

TU-PA-3E / Tuesday Parallel Session 3E: Depth Profilometry
Auditorium AV 02.17, 15:45 - 17:10

Chair: Heinz-Günter Walther

- 15:45 - 16:10 *TU-PA-3E-1 - Invited Lecture*
**SURVEY OF THERMAL PULSE AND WAVE TECHNIQUES FOR ELECTRET AND
 DIELECTRIC MATERIAL CHARACTERIZATION**
 S. Bauer, N. Arnold, S. Bauer-Gogonea, R. Schwödiauer, Johannes Kepler University,
 LINZ, Austria
- 16:10 - 16:30 *TU-PA-3E-2*
**THERMAL CONDUCTIVITY DEPTH PROFILE RECOVERY IN HARDENED STEEL
 RODS**
 R. Celorrio¹, E. Apiñaniz², A. Mendioroz², A. Salazar², A. Oleaga², C. Wang³, A.
 Mandelis⁴
¹Universidad de Zaragoza, ZARAGOZA, Spain
²Universidad del País Vasco, BILBAO, Spain
³Soochow University, SUZHOU, China
⁴University of Toronto, TORONTO, Canada

16:30 - 16:50 TU-PA-3E-3
SIZE RETRIEVAL OF DAMAGES IN COMPOSITE MATERIAL WITH LOCK-IN THERMOGRAPHY

C. Zöcke¹, A. Langmeier¹, W. Arnold²

¹EADS-IW, BRUNNTHAL, Germany

²Saarland University, SAARBRÜCKEN, Germany

16:50 - 17:10 TU-PA-3E-5
THERMAL-WAVE RADAR: A NOVEL SUBSURFACE IMAGING MODALITY WITH EXTENDED DYNAMIC RANGE

A. Mandelis, University of Toronto, TORONTO, Canada

TU-PL-2 / Tuesday Plenary Session 2 Auditorium Max Weber, 17:45-18:30
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Chair: Sridhar Krishnaswamy

17:45 - 18:30 TU-PL-2
SERIAL AND PARALLEL APPROACHES TO HIGH FREQUENCY LASER ULTRASONICS

M. Somekh, Nottingham University, NOTTINGHAM, United Kingdom

TU-POS / Tuesday Poster Session Alma 2, 18:45 - 20:00
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All posters will be on display for the duration of the conference. **Odd-numbered** posters will be presented during the poster session of Tuesday.

WEDNESDAY 22 JULY- SESSION DETAILS

WE-PL-1 / Wednesday Plenary Session 1 Auditorium Max Weber, 08:00-09:30
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Chair: Vitaly Gusev

- 08:00 - 08:45 *WE-PL-1-1*
COOLING AND AMPLIFYING MECHANICAL OSCILLATORS WITH LIGHT
K. Vahala, California Institute of Technology, PASADENA, CALIFORNIA, United States of America
- 08:45 - 09:30 *WE-PL-1-2*
MULTISPECTRAL PHOTOACOUSTIC ANALYSIS OF ATMOSPHERIC AEROSOL
W.P. Arnott, H. Moosmüller, University of Nevada Reno, RENO, NEVADA, United States of America

WE-PA-1A / Wednesday Parallel Session 1A: Nanophotonics Auditorium Max Weber, 10:00 - 11:55
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Chair: Danièle Fournier

- 10:00 - 10:25 *WE-PA-1A-1 - Invited Lecture*
SCANNING THERMAL MICROSCOPY OF MATERIALS AND DEVICES WITH FLUORESCENT NANOPARTICLES
L. Aigouy¹, E. Saïdi¹, B. Samson¹, M. Mortier², P. Löw³, C. Bergaud³
¹CNRS/ESPCI, PARIS CEDEX 5, France
²CNRS/ENSSCP, PARIS, France
³CNRS/LAAS, TOULOUSE, France
- 10:25 - 10:45 *WE-PA-1A-4*
ULTRAVIOLET PHOTOTHERMAL IMAGING OF SINGLE NON-STAINED YEAST CELLS
N. Fujii, A. Harata
Kyushu University, FUKUOKA, Japan
- 10:45 - 11:05 *WE-PA-1A-5*
THERMO-ACOUSTICS PHENOMENA IN THE METAL NANOPARTICLES SYSTEM GENERATED BY ULTRASHORT LASER PULSE
Y. Bilotsky¹, N. Grigorichuk², P. Tomchuk³, M. Gasik¹
¹Helsinki University of Technology, ESPOO, Finland
²Institute of Theoretical Physics, 14-b Metrologichna Str., KYIV, Ukraine
³Institute of Physics, 46 Nauka Ave., KYIV, Ukraine
- 11:05 - 11:30 *WE-PA-1A-2 - Invited Lecture*
INFRARED NANOSCOPY DONE BY PHOTOTHERMAL INDUCED RESONANCE TECHNIQUE: APPLICATION IN MICROBIOLOGY
A. Dazzi, Laboratoire de Chimie Physique, ORSAY, France
- 11:30 - 11:55 *WE-PA-1A-3 - Invited Lecture*
PROBING THE LIMITS OF PHOTOTHERMAL DETECTION
A. Gaiduk¹, P. Ruijgrok¹, P. Paulo², F. Kulzer³, G. Krens¹, H. Spaink¹, T. Schmidt¹, M. Orrit¹
¹Leiden University, LEIDEN, The Netherlands
²Instituto Superior Técnico, LISBOA, Portugal
³ICFO - Institut de Ciències Fòniques, BARCELONA, Spain

WE-PA-1B / Wednesday Parallel Session 1B: Photoacoustic and Photothermal Imaging Auditorium Jean Monnet, 10:00 - 11:50

Chair: Walter Arnold

- 10:00 - 10:20 *WE-PA-1B-1*
TOWARDS FULL-FIELD PHOTOTHERMOELASTIC MICROSCOPY USING A CCD CAMERA
J. Charnay, D. Teyssieux, B. Cretin, FEMTO-ST Institute, BESANCON, France

- 10:25 - 10:45 *WE-PA-1B-3*
TRANSIENT THERMAL IMAGING OF A PHOTONIC CRYSTAL LASER
V. Moreau¹, G. Tessier¹, Y. De Wilde¹, A. Yacomotti², M. Brunstein², R. Raj², A. Levenson²
¹Institut Langevin, PARIS CEDEX 05, France
²Laboratoire de Photonique et Nanostructures, MARCOUSSIS, France
- 10:45 - 11:05 *WE-PA-1B-4*
OBSERVATION OF PHASE TRANSFORMATIONS OF SHAPE MEMORY ALLOYS USING IR IMAGERIES
G. Wang, X. Jiang, S. Gendron, D. Nikanpour, Canadian Space Agency, ST HUBERT, Canada
- 11:05 - 11:25 *WE-PA-1B-5*
REAL-TIME IMAGING OF LAMB WAVE PROPAGATION ON WEDGES
M. Tomoda¹, S. Matsueda¹, O. Matsuda¹, V. Gusev², O. Wright¹
¹Hokkaido University, SAPPORO, Japan
²Université du Maine, LE MANS, France
- 11:30 - 11:50 *WE-PA-1B-6*
TIME-RESOLVED 2-D IMAGING OF ACOUSTIC WAVES ON BULK ACOUSTIC WAVE FILTER DEVICE
O. Matsuda¹, T. Fujikura¹, D.M. Profunser¹, O.B. Wright¹, J. Masson², S. Ballandras²
¹Hokkaido University, SAPPORO, Japan
²FEMTO-ST, BESANCON, France

WE-PA-1D / Wednesday Parallel Session 1D: Thermophysical Properties
Auditorium AV 00.17, 10:00 - 12:15

Chair: Nicu Dadarlat

- 10:00 - 10:25 *WE-PA-1D-1 - Invited Lecture*
ACCURATE PHOTOPYROELECTRIC CALORIMETRY OF LIQUIDS INVOLVING THE THERMAL-WAVE RESONATOR CAVITY METHOD
D. Dadarlat, NIRDIMT Cluj-Napoca, CLUJ- NAPOCA, Romania
- 10:25 - 10:45 *WE-PA-1D-2*
THERMAL CHARACTERIZATION OF HTR PARTICULE LAYERS BY PHOTOTHERMAL MICROSCOPY
D. Marchand, D.Rochais, CEA, MONTS, France
- 10:45 - 11:05 *WE-PA-1D-3*
THERMAL CHARACTERIZATION OF PYROELECTRIC SENSOR MATERIALS BETWEEN 130K AND 300K BY A PHOTOPYROELECTRIC TECHNIQUE
C. Glorieux¹, R.N. Rajesh¹, P. Menon¹, J. Leys¹, S. Longuemart²
¹ATF-K.U. Leuven, HEVERLEE, Belgium
²Laboratoire de Thermophysique de la Matière Condensée (UMR CNRS 8024), Universi, DUNKERQUE, France
- 11:05 - 11:25 *WE-PA-1D-4*
PHOTOACOUSTIC BASED TECHNIQUE FOR MEASURING THE MAGNETOCALORIC EFFECT
A.M. Mansanares¹, A.O. Guimaraes², A.M.G. Carvalho³, A.A. Coelho⁴, S. Gama⁴, M.J.M. Pires³, E.C. Silva²
¹Campinas State University, CAMPINAS (SP), Brazil
²Laboratório de Ciências Físicas, UENF, CAMPOS DOS GOYTACAZES (RJ), Brazil
³Inst. Nacional de Metrologia, Normalização e Qualidade Industrial, DUQUE DE CAXIAS (RJ), Brazil
⁴Instituto de Física Gleb Wataghin, Universidade Estadual de Campinas, CAMPINAS (SP), Brazil

- 11:30 - 11:50 *WE-PA-1D-5*
ASSESSMENT OF MODULATED HOT WIRE METHOD FOR THERMOPHYSICAL CHARACTERIZATION OF FLUID AND SOLID MATRICES CHARGED WITH (NANO)PARTICLE INCLUSIONS
*M. Chirtoac*¹, J.F. Henry², A. Turgut³, I. Tavman³, K. Hadjov⁴, H.P. Schuchmann⁵, C. Sauter⁵, J.S. Antoniw², O. Fudym⁶, S. Tavman⁷
¹Universite de Reims Champagne Ardenne, REIMS, France
²Lab. Thermophysique, GRESPI, Univ. Reims, REIMS, France
³Mechanical Engn. Dept., Dokuz Eylul Univ., BORNOVA IZMIR, Turkey
⁴Univ. Chem. Tech. and Metallurgy, SOFIA, Bulgaria
⁵University Inst. of Food Process Engn., KARLSRUHE, Germany
⁶Ecole des Mines Albi, CNRS, ALBI, France
⁷Food Engn. Dept., Ege Univ., BORNOVA IZMIR, Turkey
- 11:55 - 12:15 *WE-PA-1D-6*
SIMPLE OPTICAL HEATING METHOD IN THERMAL DIFFUSIVITY MEASUREMENT OF HIGH CONDUCTIVITY THIN FOILS
M.M. Moksin, M.S. Husin, B.Z. Azmi, Universiti Putra Malaysia, SERDANG, Malaysia
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|---|------------------------------|
| WE-PA-1E / Wednesday Parallel Session 1E: Gas Photoacoustics | |
| Auditorium AV 02.17, 10:00 - 11:50 | <i>Chair: Markus Sigrist</i> |
- 10:00 - 10:25 *WE-PA-1E-1 - Invited Lecture*
PHOTO-THERMOPHORESIS AS A NEW TOOL FOR AEROSOL CHARACTERIZATION
C. Haisch, M. Oster, L. Opilik, R. Niessner, Technische Universität München, MUNICH, Germany
- 10:25 - 10:45 *WE-PA-1E-2*
FEM ANALYSIS EXAMINING RESONANCE BUFFER RADIUS IN CYLINDRICAL PHOTOACOUSTIC CHAMBERS
L. Duggen, R. Frese, M. Willatzen, University of Southern Denmark, SØNDERBORG, Denmark
- 10:45 - 11:05 *WE-PA-1E-3*
AMMONIA DETECTION FROM DIAZOTROPHIC BACTERIA BY USING A QUANTUM CASCADE LASER BY PHOTOACOUSTIC SPECTROSCOPY
*M.G. Da Silva*¹, P. Almeida Jr.¹, L. Paiva¹, S. Bueno¹, M. Baptista-Filho¹, M. Sthel¹, F. Olivares¹, H. Vargas¹, A. Miklos²
¹UENF, CAMPOS DOS GOYTACAZES, Brazil
²FIB, STUTTGART, Brazil
- 11:05 - 11:25 *WE-PA-1E-4*
TRACE GAS SENSING USING QUANTUM CASCADE LASERS AND A FIBER-COUPLED OPTOACOUSTIC SENSOR
*V. Spagnolo*¹, *A. Elia*², C. Di Franco³, P.M. Lugarà², G. Scamarcio²
¹Politecnico di Bari, BARI, Italy
²Physics Department- University of Bari, BARI, Italy
³CNR-INFM Regional Lab. LIT3, BARI, Italy
- 11:30 - 11:50 *WE-PA-1E-5*
DISCRIMINATION BETWEEN SPECIES AND CASTES OF ANTS BY FOURIER TRANSFORM INFRARED PHOTOACOUSTIC SPECTROSCOPY
S.M. Lima, L.H.C. Andrade, W.F. Antonialli-Junior, Y.R. Suárez, Universidade Estadual de Mato Grosso do Sul, DOURADOS, Brazil

THURSDAY 23 JULY - SESSION DETAILS

TH-PL-1 / Thursday Plenary Session 1 Auditorium Max Weber, 08:00-09:30

Chair: Danièle Fournier

08:00 - 08:45 *TH-PL-1-1*
INFRARED NEAR-FIELD OPTICS. WHEN THE SAMPLE BECOMES THE SOURCE
Y. De Wilde¹, A. Babuty², A. Bousseksou³, V. Moreau³, P.-A. Lemoine², P.-O. Chapuis⁴, I. Doyen², R. Colombelli³, J.-J. Greffet⁵, K. Joulain⁶
¹ESPCI - CNRS, PARIS, France
²ESPCI-CNRS-Institut Langevin, PARIS, France
³Institut d'Electronique Fondamentale, ORSAY, France
⁴Institut Langevin - ESPCI -CNRS, PARIS, France
⁵Laboratoire EM2C, Ecole Centrale Paris-CNRS, CHÂTENAY-MALABRY, France
⁶Laboratoire d'Etudes Thermiques, ENSMA-CNRS, FUTUROSCOPE, France

08:45 - 09:30 *TH-PL-1-2*
THERMAL TRANSPORT IN NANOSTRUCTURED MATERIALS AND DEVICES
A. Majumdar, University of California, Berkeley, BERKELEY, United States of America

TH-PA-1A / Thursday Parallel Session 1A: Thermal Lens Spectroscopy and Analytical Chemistry Auditorium Max Weber, 10:00 - 12:05
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Chair: Mauro Luciano Baesso

10:00 - 10:25 *TH-PA-1A-1 - Invited Lecture*
PHOTO-THERMAL MEASUREMENT OF ABSORPTION AND WAVEFRONT DEFORMATIONS IN UV OPTICS
K. Mann, A. Bayer, U. Leinhos, B. Schäfer, Laser-Lab Göttingen eV, GÖTTINGEN, Germany

10:25 - 10:45 *TH-PA-1A-2*
CURRENT-INDUCED THERMAL LENSING IN CHEMICAL ANALYSIS
M.A. Proskurnin¹, B. Zuev², V. Yagov², P. Gorkin², A. Korotkov²
¹Moscow State University, MOSCOW, Russian Federation
²Vernadskii Institute of Geochemistry and Analytical Chemistry, MOSCOW, Russian Federation

10:45 - 11:05 *TH-PA-1A-3*
A HIGHLY FLEXIBLE PULSED PHOTOACOUSTIC SETUP BASED ON A TUNABLE LASER SOURCE AND EXTERNAL MODULATION
A. Sheinfeld, S. Gilead, A. Eyal, Tel-Aviv University, TEL-AVIV, Israel

11:05 - 11:25 *TH-PA-1A-4*
THERMAL LENS SPECTROSCOPY OF Cr(III) SPECIES IN AQUEOUS SOLUTION
T. Catunda¹, A.A. Andrade², R. Cruz³
¹Inst. de Fisica de Sao Carlos, SAO CARLOS, SP, Brazil
²Universidade Federal de Uberlandia, UBERLANDIA, Brazil
³IFSC, SAO CARLOS, Brazil

11:25 - 11:45 *TH-PA-1A-5*
OPTICAL CHARACTERIZATION OF N-DOPED TiO₂ THIN FILMS GROWN BY PULSED LIQUID INJECTION CHEMICAL VAPOR DEPOSITION USING PHOTOACOUSTIC SPECTROSCOPY
J.G. Mendoza-Alvarez¹, L.M. Apatiga², L.A. Ruiz-Ida², V.M. Castaño², A. Cruz-Orea³, F. Sanchez-Sinencio⁴
¹Cinvestav-IPN, MEXICO DF, Mexico
²CFATA-UNAM, QUERETARO, Mexico
³Physics Dept.-Cinvestav-IPN, MEXICO DF, Mexico
⁴Centro Latinoamericano de Fisica, RIO DE JANEIRO, Brazil

11:45 - 12:05 *TH-PA-1A-6*
PULSED LASER EXCITED PHOTOTHERMAL LENS SPECTROMETRY OF CdS_xSe_{1-x} DOPED SILICA GLASSES
S. Bialkowski, O.O. Dada, P.R. Joshi, Utah State University, LOGAN, United States of America

TH-PA-1B / Thursday Parallel Session 1B: Non-Destructive Testing and Evaluation
Auditorium Jean Monnet, 10:00 - 12:05

Chair: Josef Pelzl

- 10:00 - 10:25 *TH-PA-1B-1 - Invited Lecture*
PHOTOTHERMAL CHARACTERIZATION OF NON-FLAT SAMPLES
*A. Salazar*¹, A. Mendioroz¹, E. Apiñaniz¹, A. Oleaga¹, R. Celorrio²
¹Universidad del Pais vasco, BILBAO, Spain
²Universidad de Zaragoza, ZARAGOZA, Spain
- 10:25 - 10:45 *TH-PA-1B-2*
MAPPING CORROSION OF METALLIC SLAB BY THERMOGRAPHY
*P. Bison*¹, G. Inglese²
¹CNR, PADOVA, Italy
²CNR-IAC, FIRENZE, Italy
- 10:45 - 11:05 *TH-PA-1B-3*
A COMPARATIVE INVESTIGATION FOR THE NONDESTRUCTIVE TESTING OF HONEYCOMB STRUCTURES BY HOLOGRAPHIC INTERFEROMETRY AND INFRARED THERMOGRAPHY
*S. Sferra*¹, C. Ibarra-Castanedo², N.P. Avdelidis³, M. Genest⁴, L. Bouchagier⁵, D. Kourousis⁵, A. Tsimogiannis⁵, A. Anastassopoulos⁵, A. Bendada², X. Maldague², D. Ambrosini¹, D. Paoletti¹
¹Las.E.R. Laboratory, DIMEG, AQUILA, Italy
²Laval University, QUEBEC CITY, Canada
³National Technical University of Athens (NTUA), ATHENS, Greece
⁴National Research Council Canada (NRC), Canada
⁵Envirocoustics S.A., ATHENS, Greece
- 11:05 - 11:25 *TH-PA-1B-4*
EVALUATION OF THE QUALITY OF THE ETCHING PROCESS WITH THE PIEZOELECTRIC SPECTROSCOPY METHOD
*M. Malinski*¹, J. Zakrzewski², K. Strzalkowski²
¹Technical University of Koszalin, KOSZALIN, Poland
²Instytut Fizyki UMK Torun, TORUN, Poland
- 11:25 - 11:45 *TH-PA-1B-5*
APPLICATION OF DATA FUSION TO THERMAL WAVE IMAGING WITH LOCKIN THERMOGRAPHY
G. Busse, C. Spiessberger, A. Gleiter, Institute of Polymer Technology (IKT), Universität Stuttgart, STUTTGART, Germany
- 11:45 - 12:05 *TH-PA-1B-6*
MODERN ACTIVE THERMOGRAPHY TECHNIQUES FOR NON-DESTRUCTIVE TESTING
*W. Arnold*¹, C. Homma², M. Goldammer², M. Rothenfusser², J. Baumann²
¹Saarland University, SAARBRUECKEN, Germany
²Siemens AG, MUNICH, Germany

TH-PA-1C / Thursday Parallel Session 1C: Phononic Crystals
Auditorium AV 01.12, 10:00 - 12:10

Chair: Bernard Bonello

- 10:00 - 10:25 *TH-PA-1C-1 - Invited Lecture*
TAILORING PHONON PROPAGATION BY MESOSCOPIC ENGINEERING OF SOFT MATTER
G. Fytas, T. Still, A. Sato, Max Planck Institute for Polymer Research, MAINZ, Germany

- 10:25 - 10:45 *TH-PA-1C-2*
PHONONIC CRYSTAL EXCITED THROUGH THE PHOTOACOUSTIC EFFECT
G. Diebold, Brown University, PROVIDENCE, United States of America
- 10:45 - 11:05 *TH-PA-1C-3*
REFRACTION OF SURFACE ACOUSTIC WAVES THROUGH 2D PHONONIC CRYSTALS
B. Bonello¹, J. Pierre², O. Boyko², L. Belliard²
¹LENS e Dip. di Fisica, Università di Firenze, Sesto Fiorentino, Italy
²INSP - University Paris 6, PARIS, France
- 11:05 - 11:25 *TH-PA-1C-4*
EXPERIMENTAL EVIDENCE OF BAND FOLDING IN 1D HYPERSONIC PHONONIC CRYSTAL
I. Malfanti¹, P. Bartolini¹, A. Taschin¹, B. Bonello², R. Torre¹
¹LENS e Dip. di Fisica, Università di Firenze, Sesto Fiorentino, Italy
²INP, UMR 7588 CNRS, Université Pierre et Marie Curie, Paris, France
- 11:25 - 11:45 *TH-PA-1C-5*
SELECTIVE LASER EXCITATION AND DETECTION OF LONG-LIVED VIBRATIONAL MODES IN METAL-DIELECTRIC STRUCTURES ON SILICON
A.A. Maznev, T. Tachizaki, O. Matsuda, O.B. Wright
Hokkaido University, SAPPORO, Japan
- 11:45 - 12:10 *TH-PA-1C-6 - Invited Lecture*
ULTRAFAST ACOUSTICS IN 2D PHONONIC CRYSTALS
A. Devos, P.-A. Mante, J.-F. Robillard, IEMN, LILLE, France

TH-PA-1D / Thursday Parallel Session 1D: Thermophysical Properties Auditorium AV 00.17, 10:00 - 11:45	<i>Chair: Mihai Chirtoc</i>
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- 10:00 - 10:25 *TH-PA-1D-1 - Invited Lecture*
TIME RESOLVED THERMAL MIRROR FOR MEASUREMENTS OF PHYSICAL PROPERTIES OF SOLIDS: THEORY AND EXPERIMENT
L.C. Malacarne¹, M.P. Belancon¹, N.G.C. Astrath², J. Shen²
¹Universidade Estadual de Maringá, MARINGÁ, Brazil
²Institute for Fuel Cell Innovation, VANCOUVER, Canada
- 10:25 - 10:45 *TH-PA-1D-2*
THERMAL ANALYSIS OF THE PUMP-PROBE TRANSIENT THERMOREFLECTANCE USING NETWORK IDENTIFICATION BY DECONVOLUTION METHOD
Y. Ezzahri, A. Shakouri, University of California Santa Cruz, SANTA CRUZ, United States of America
- 10:45 - 11:05 *TH-PA-1D-3*
HIGH PRECISION PHOTOPYROELECTRIC DEVICE FOR THE DETERMINATION OF THERMAL PARAMETERS OF LIQUIDS EMPLOYING THICKNESS SCAN APPROACH
C. Glorieux, P. Menon, R.N. Rajesh, ATF-K.U. Leuven, HEVERLEE, Belgium
- 11:05 - 11:25 *TH-PA-1D-4*
THERMAL PROPERTIES OF HYDRATED CEMENT PASTES USING PHOTOACOUSTIC TECHNIQUE
H. Talaat¹, A. Abdelalim², S. Negm², S. Abdallah², K. Easawi²
¹Ain Shams University, CAIRO, Egypt
²Benha University, CAIRO, Egypt

11:25 - 11:45 *TH-PA-1D-5*
**PHOTOACOUSTIC STUDY OF THE THERMAL-OPTICAL PROPERTIES IN
 QUANTUM DOTS EMBEDDED IN DENTAL RESIN COMPOSITES**

V. Pilla¹, L. Alves², P. Barja³, D. Murgo³, E. Munin⁴

¹Universidade Camilo Castelo Branco- UNICASTELO, SÃO PAULO, Brazil

²IPQA, SÃO JOSÉ DOS CAMPOS, Brazil

³UNIVAP, SÃO JOSÉ DOS CAMPOS, Brazil

⁴UNICASTELO, SÃO JOSE DOS CAMPOS, Brazil

TH-PA-1E / Thursday Parallel Session 1E: Medical Ultrasound Tomography

Auditorium AV 02.17, 10:00 - 11:05

Chair: Edson Corrêa da Silva

10:00 - 10:25 *TH-PA-1E-1 - Invited Lecture*
**PHOTOACOUSTIC IMAGING IN BIOMEDICINE USING COUPLED
 NANOPARTICLES**
M. O'Donnell, S.-W. Huang, X. Gao, University of Washington, SEATTLE, United
 States of America

10:25 - 10:45 *TH-PA-1E-2*
**FAST K-SPACE MODELS OF ULTRASOUND PROPAGATION IN TISSUE
 REALISTIC MEDIA AND THEIR APPLICATION TO PHOTOACOUSTIC IMAGE
 RECONSTRUCTION**
B. Treeby, B. Cox, University College London, LONDON, United Kingdom

10:45 - 11:05 *TH-PA-1E-3*
**COMPARATIVE STUDY OF TIME-AND FREQUENCY-DOMAIN PHOTOACOUSTIC
 IMAGING OF BIOLOGICAL MATERIALS**
A. Mandelis, University of Toronto, TORONTO, Canada

TH-PA-2A / Thursday Parallel Session 2A: Thermal Lens Spectroscopy and Analytical Chemistry

Auditorium Max Weber, 13:45 - 14:50

Chair: Gabriel Bilmes

13:45 - 14:05 *TH-PA-2A-1*
CHARACTERIZATION OF CdS THIN FILMS DOPED WITH CHLOROPHYLL
S. Tomas¹, O. Portillo², O. Zelaya¹, R. Lozada²
¹CINVESTAV-IPN, MEXICO CITY, Mexico
²BUAP, PUEBLA, Mexico

14:05 - 14:25 *TH-PA-2A-2*
**DETERMINATION OF COLLOID SILVER IN DRINKING WATER BY FLOW
 INJECTION ANALYSIS WITH TLS SPECTROMETRIC UV DETECTION**
M. Franko¹, D. Kobylinska¹, C. Sarzanini², M. Bruzzone²
¹University of Nova Gorica, NOVA GORICA, Slovenia
²University of Torino, TORINO, Italy

14:25 - 14:50 *TH-PA-2A-3 - Invited Lecture*
THERMAL LENS SPECTROSCOPY OF LASER MATERIALS
T. Catunda, Inst. de Fisica de Sao Carlos, SAO CARLOS, SP, Brazil

TH-PA-2B / Thursday Parallel Session 2B: Linear and Non-Linear Laser Ultrasonics

Auditorium Jean Monnet, 13:45 - 14:50

Chair: Peter Hess

13:45 - 14:05 *TH-PA-2B-2*
IN-PLANE FOCUSING OF LASER-DRIVEN SHOCK WAVES
T. Pezeril, LPEC UMR CNRS, LE MANS, France

14:05 - 14:25 TH-PA-2B-3

ADHESIVE BOND TESTING USING LASER-INDUCED SHOCK WAVES

S.E. Kruger¹, Z. Gu¹, M. Perton¹, M. Arrigoni¹, A. Blouin¹, D. Lévesque¹ and J.-P. Monchalain¹, A. Johnston², M. Boustie³ and L. Berthé⁴

¹ National Research Council Canada, BOUCHERVILLE, Canada

² National Research Council of Canada, OTTAWA, Canada

³ Laboratoire de Combustion et Détonique, CHASSENEUIL FUTUROSCOPE CEDEX, France

⁴ Laboratoire d'Application des Lasers de Puissance, ARCEUIL CEDEX, France

14:25 - 14:50

TH-PA-2B-1 - **Invited Lecture**

BULK WAVES EXCITED BY A LASER LINE PULSE IN A TWO-LAYERED CYLINDER

Y. Pan¹, B. Audoin², N. Chigarev²

¹Tongji University, SHANGHAI, China

²LMP, Bordeaux University 1, TALENCE, France

TH-PA-2C / Thursday Parallel Session 2C: Thermography

Auditorium AV 01.12, 13:45 - 14:45

Chair: Walter Arnold

13:45 - 14:05

TH-PA-2C-1

THERMAL DIFFUSIVITY MEASUREMENTS ON THIN FOILS AND WIRES BY INFRARED THERMOGRAPHY

A. Mendioroz, E. Apiñaniz, A. Salazar, University of the Basque Country, BILBAO, Spain

14:05 - 14:25

TH-PA-2C-2

MODULATED SPOT HEATING FOR THE MEASUREMENT OF THERMAL DIFFUSIVITY WITH MICRO-SCALE THERMOGRAPHY

J. Morikawa¹, T. Hashimoto¹, T. Eto², E. Hayakawa³

¹Tokyo Institute of Technology, TOKYO, Japan

²Eto Denki, Co., Ltd., TOKYO, Japan

³Ai-Phase, Co., Ltd., TOKYO, Japan

14:25 - 14:45

TH-PA-2C-3

THERMAL WAVE IMAGING USING LOCKIN INTERFEROMETRIC METHODS

G. Busse, P. Menner, H. Gerhard, Institute of Polymer Technology (IKT), Universität Stuttgart, STUTTGART, Germany

TH-PA-2D / Thursday Parallel Session 2D: Semiconductors

Auditorium AV 00.17, 13:45 - 14:50

Chair: Bincheng Li

13:45 - 14:05

TH-PA-2D-1

FREQUENCY-RESOLVED TEMPERATURE IMAGING OF INTEGRATED CIRCUITS WITH HETERODYNE HOLOGRAPHY

S. Suck¹, N. Warnasooriya¹, A. Babuty¹, Y. De Wilde², G. Tessier¹

¹ESPCI, PARIS, France

²ESPCI / CNRS, PARIS, France

14:05 - 14:25

TH-PA-2D-2

OPTICALLY EXCITED PLASMAELASTIC WAVES IN SEMICONDUCTING PLATE - COUPLED PLASMA AND ELASTIC PHENOMENA

D. Todorovic¹, S. Galovic², M. Popovic²

¹Institute for Multidisciplinary Researches, BELGRADE, Serbia

²VINCA Institute of Nuclear Sciences, BELGRADE, Serbia

14:25 - 14:50

TH-PA-2D-2 (in Book of Abstracts: WE-PA-1B-2)

INFRARED ANALYSIS OF THIN-FILM PHOTOVOLTAIC MODULES

C. Buerhop¹, J. Bachmann²

¹Bavarian Center for Applied Energy Research (ZAE Bayern), ERLANGEN, Germany

²ZAE Bayern, ERLANGEN, Germany

TH-PA-2E / Thursday Parallel Session 2E: Nanostructures and Ultrafast Phenomena**Auditorium AV 02.17, 13:45 - 14:50***Chair: Bernard Perrin*

- 13:45 - 14:05 *TH-PA-2E-1*
OPTICAL EXCITATION AND DETECTION OF TERAHERTZ ACOUSTIC WAVES WITH SEMICONDUCTOR SUPERLATTICES
A. Huynh, INSP, PARIS, France
- 14:05 - 14:25 *TH-PA-2E-2*
PHOTOACOUSTIC SPECTRA OF AU QUANTUM DOTS ABSORBED ON NANOSTRUCTURED TiO₂ ELECTRODES TOGETHER WITH THE PHOTOELECTROCHEMICAL CURRENT CHARACTERISTICS
T. Toyoda, The University of Electro-Communications, TOKYO, Japan
- 14:25 - 14:50 *TH-PA-2E-3 - Invited Lecture*
NANO SCALE THERMAL MANAGEMENT BY WAY OF HETERODYNE PICOSECOND THERMOREFLECTANCE
S. Dilhaire, J.M. Rampnoux, S. Grauby, G. Pernot, G. Calbris, W. Claeys, CPMOH Université Bordeaux1, TALENCE, France

TH-PL-2 / Thursday Plenary Session 2**Auditorium Max Weber, 15:30 - 17:30**

- 15h30-17h00 *IPPA prize*
- 15h30 *IPPA prize announcement and hand over, award lecture first prize winner*
- 16h00 *IPPA prize announcement and hand over, award lecture second prize winner*
- 16h30 *IPPA prize announcement and hand over, award lecture third prize winner*
- 17h00-17h20 *Election of next conference site and organizer*
- 17h20-17h30 *Closing note*