

# **CONFERENCE PROGRAM**

**The 6th International Conference on the Physics of  
Optical Materials and Devices  
AND  
The 5th International Workshop of Persistent and  
Photostimulable Phosphors (IWPPP-5)**

**August 29<sup>th</sup> to September 2<sup>nd</sup>, 2022  
Belgrade, Serbia**

<b>Sunday, August 28<sup>th</sup>, 2022</b>	
<b>Hotel Falkensteiner (Lobby)</b>	
<b>16.00-20.00</b>	<b>Registration (Lobby)</b>

<b>Monday, August 29<sup>th</sup>, 2022</b>	
<b>Hotel Falkensteiner (Main conference room)</b>	
<b>8.00-16.00</b>	<b>Registration (Lobby)</b>
<b>9.30-10.00</b>	<b>Meet and Greet</b>
<b>10.00-10.10</b>	<b>Opening Ceremony</b>
<b>Session 1: 10.10-11.00 <i>Light for sensing</i></b> <i>Session chairs: Xiaogang Liu, Andries Meijerink</i>	
<b>10.10-10.35</b>	Invited lecture 1 Claudia Wickleder <b><i>Luminescence of mixed valence materials - essentially unexplored.</i></b>
<b>10.35-11.00</b>	Invited lecture 2 Stephen Rand <b><i>Laser cooling of sapphire on an electric-dipole transition</i></b>
<b>11.00-11.30</b>	<b>Coffee Break</b>
<b>Parallel sessions 2 (Conference room A) and 3 (Conference room B): 11.30-13.00</b> <b>2 <i>Luminescence of Crystals</i> (Chairs: M. Brik, M. Piasecki)</b> <b>3 <i>Thin Films and Composites</i> (Chairs: G. Lozano, M. Wickleder)</b>	
<b>11:30-11.45</b>	Oral lecture 1 Milan Lalic <b><i>New ferroelectric photovoltaic devices: the origin of a large difference in power conversion efficiency between the hexagonal manganites and ferrites</i></b>
<b>11.45-12.00</b>	Oral lecture 2 Hong Zhang <b><i>New possibilities</i></b>
<b>11:30-11.45</b>	Oral lecture 6 Jeremy Cathalan <b><i>Development of rare earth-free aluminium borate-based phosphors and composite films</i></b>
<b>11.45-12.00</b>	Oral lecture 7 Luiz Jacobsohn <b><i>MgAl<sub>2</sub>O<sub>4</sub> AND</i></b>

	<i>of phosphor from a nano perspective</i>	<i>ZnAl<sub>2</sub>O<sub>4</sub>: microstructure, defects and luminescence</i>
12.00-12.15	Oral lecture 3 Andrei Racu <i>Erbium doped materials and correlation of photoluminescence, structure and symmetry</i>	Oral lecture 8 Yaroslav Zhydachevskyy (Andrzej Suchocki) <i>Chemical tuning of Mn<sup>4+</sup> photoluminescence in Ga<sub>2</sub>O<sub>3</sub> Al<sub>2</sub>O<sub>3</sub> alloys</i>
12.15-12.30	Oral lecture 4 Kei Kamada <i>Development of novel eutectic scintillators for thermal neutron detections and their material design</i>	Oral lecture 9 Peng Feng <i>Investigation on effect of trap on afterglow process in long wavelength PersL SrMgGe<sub>2</sub>O<sub>6</sub>: Mn<sup>2+</sup>, Sm<sup>3+</sup></i>
12.30-12.45	Oral lecture 5 Rei Sasaki <i>Crucible free growth and scintillation properties of <math>\beta</math>-Ga<sub>2</sub>O<sub>3</sub> single crystals</i>	
12.45-15.00	<b>Break</b>	
<b>Session 4 (Main conference room): 15.00-17.35</b> <i>Exploring luminescent Systems</i> <i>Session chairs: Željka Antić, Stephen Rand</i>		
15.00-15.45	Plenary lecture 1 Xiaogang Liu <i>Luminescent nanoparticles: a wonderful toolbox for assistive technologies.</i>	
15.45-16.10	Invited lecture 3 Gabriel Lozano <i>Nanophosphor-based Photonic Materials provide fine control over the emission properties of rare-earth nanocrystals</i>	
16.10-16.30	<b>Coffee Break</b>	
16.30-17.15	Plenary lecture 2 Andries Meijerink <i>Non-radiative transitions: our dark foe...and friend</i>	
17.15-17.40	Invited lecture 4 Matias Wickleder <i>Divalent lanthanide triflates</i>	

17.40-17.55	Oral lecture 10 Carlos Brites <i>Taking advantage of trivalent lanthanide ions for reprogrammable and reconfigurable photonic molecular logic gates</i>
17:55	Break
19.30-21.30	Welcome Party at Restaurant and Bar “AMSTERDAM” ADDRESS: KEJ OSLOBODJENJA BB, BELGRADE

## Tuesday, August 30<sup>th</sup>, 2022

### Hotel Falkensteiner

8.00-16.00	Registration (Main conference room)
Session 5 (Main conference room):9.00-11.00 <i>Persistent Luminescence Materials</i> Session chairs: Bruno Viana, Mathieu Allix	
9.00-9.45	Plenary lecture 3 Setsuhisa Tanabe <i>Traps for persistence or/and photochromism; can they be AND?</i>
9.45-10.20	Keynote lecture 1 Wei Chen <i>Persistent Luminescence nanophosphors for Photodynamic activation and Anti-counterfeiting Application</i>
10.20-10.45	Invited lecture 5 David van der Heggen <i>Metastable states in persistent phosphors: A spectroscopic game of hide-and-seek</i>
10.45-11.00	Oral lecture 11 Verena Fritz <i>Lost in the heat of the moment: bringing losses in persistent phosphors to light with a set of thermoluminescence measurements</i>
11.00-11.30	Coffee Break
Session 6 (Main conference room):11.30-13.05 <i>Persistent Luminescence Mechanisms</i> Session chairs: Setsuhisa Tanabe, Thomas Justel	

11.30-12.05	Keynote lecture 2 Philippe Smet <i>Moving persistent phosphors beyond afterglow: A platform for sensing</i>
12.05-12.40	Keynote lecture 3 Pieter Dorenbos <i>Bismuth for luminescence and charge carrier storage in inorganic compounds</i>
12.40-13.05	Invited lecture 6 Stephane Jobic <i>Can theoretical calculations meet experiments and explain luminescence properties?</i>
13.05-15.00	<b>Break</b>
<b>Session 7 (Main conference room): 15.00-17.10</b> <b><i>Tools and Applications of Persistent Phosphors</i></b> <i>Session chairs: Philippe Smet, Bernhard Walfort</i>	
15.00-15.25	Invited lecture 7 Farida Selim <i>Advanced cryogenic thermally stimulated emission spectroscopy-A new tool for assessing optical materials</i>
15.25-15.50	Invited lecture 8 Lucas Rodrigues <i>Coupling persistent luminescence materials for increased applicability: thin films and upconversion energy transfer</i>
15.50-16.15	Invited lecture 9 Victor Castaing <i>Transparent persistent luminescence films: from design to glowing perspectives</i>
16.15-16.40	Invited lecture 10 Teresa Delgado <i>Multi-band persistent luminescence emission in garnet crystals (YAGG) and garnet nanoparticles with magnetic responses (GAGG)</i>
16.40-16.55	Oral lecture 12 Sergey Fateev <i>All dimensions within sole cation: structure and optical properties of low-dimensional halide perovskites with formamidinium</i>
16.55-17.10	Oral lecture 13 Songsong Ding <i>Strategies For Designing Ultra-Broadband Near-Infrared Long Persistent Luminescent Materials</i>
17.10-17.30	<b>Coffee Break</b>
17.30-19.30	<b>POSTER SESSION &amp; CONFERENCE PHOTO</b> <b>Conference rooms 1<sup>st</sup> floor</b>

# Wednesday, August 31<sup>st</sup>, 2022

## Hotel Falkensteiner

**8.00-10.00** Registration (Main conference room)

**Session 8 (Main conference room): 9.00-10.50**

### *Design of Optical Thermometers*

*Session chairs: Daniel Jaque, Lukasz Marciniak*

**9.00-9.45**

Plenary lecture 4 Luis Carlos *Luminescent thermometers as new toys in the block. All you need is light.*

**9.45-10.10**

Invited lecture 11 Helene Brault *Luminescence thermometry of Eu-Tb mixed metal-organic frameworks: some ways to tune the thermometric performances*

**10.10-10.35**

Invited lecture 12 Aleksandar Ciric *LumTHools - software for analysis of phosphors' luminescence temperature dependence*

**10.35-10.50**

Oral lecture 14 Abbi Mullins *Dual-emission luminescence thermometry using LaGaO<sub>3</sub>:Cr<sup>3+</sup>, Nd<sup>3+</sup> phosphors*

**10.50-11.30**

**Coffee Break**

**Session 9 (Main conference room):11.30-12.25**

### *Phosphors for bio-applications*

*Session chairs: Corinne Chaneac, Wei Chen*

**11.30-11.55**

Invited lecture 13 Angel Millan *A new technology for real-time intracellular temperature imaging and monitoring. Application to local magnetic hyperthermia therapy*

**11.55-12.10**

Oral Lecture 15 Cyrille Richard *Coating ZGO nanoparticles for in vivo imaging*

**12.10-12.25**

Oral Lecture 16 Ivan Mukhin *Flexible optoelectronic devices based on III-V nanowires encapsulated into polymer matrix*

**12.25-15.00**

**Break**

**Session 10 (Main conference room):15.00-16.30**

### *New Optical Phenomena*

<i>Session chairs: Stephane Jobic, Pieter Dorenbos</i>	
<b>15.00-15.25</b>	Invited lecture 14 Diana Serrano <i>Rare-earth molecular crystals for photonic quantum technologies</i>
<b>15.25-15.50</b>	Invited lecture 15 Amina Bensalah-Ledoux <i>Polarization control in chirowaveguides: towards integrated chiral sensors</i>
<b>15.50-16.15</b>	Invited lecture 16 Michal Piasecki <i>Mid-Infrared Luminescent Materials: Overview and Structure–Property Relationship</i>
<b>16.15-16.30</b>	Oral Lecture 17 Dimitrije Mara <i>Lanthanide MOFs linear and nonlinear optical properties</i>
<b>16.30</b>	<b>Break</b>
<b>19.00-22.00</b>	<b>BOAT CRUISE AND CONFERENCE DINNER PARTY</b> (Boarding at 18.45, <b><u>Jahting klub "Kej"</u></b> , Ušće, Beograd)

<b>Thursday, September 1<sup>st</sup>, 2022</b>	
<b>Hotel Falkensteiner</b>	
<b>8.00-10.00</b>	<b>Registration (Main conference room)</b>
<b>Session 11 (Main conference room):9.00-11.00</b> <i>Optical Thermometry</i> <i>Session chairs: Helene Brault, Luis Carlos</i>	
<b>9.00-9.45</b>	Plenary lecture 5 Daniel Jaque <i>The future of brain thermometry: the era of nano</i>
<b>9.45-10.20</b>	Keynote lecture 4 Markus Suta <i>Can we control luminescent thermometers? - From the application to a fundamental understanding of non-radiative rates</i>
<b>10.20-10.45</b>	Invited lecture 17 Corinne Chaneac <i>Optimization of doped spinel oxides and silver sulfide for optical</i>

	<i>imaging and temperature sensing. Some examples of temperature measurements</i>	
10.45-11.00	Oral lecture 18 Thimo Jacobs <i>Nanoscale Sensing of Temperature during Catalytic Reactions in a Broad Temperature Range</i>	
11.00-11.30	<b>Coffee Break</b>	
<b>Session 12 (Main conference room):11.30-13.00</b> <b><i>Applications of Lanthanides' Emissions</i></b> <i>Session chairs: Diana Serrano, Claudia Wickleder</i>		
11.30-12.05	Keynote lecture 5 Lukasz Marciniak <i>New strategies of enhancing the performance of lanthanide based luminescence thermometers</i>	
12.05-12.30	Invited lecture 18 Alessandra Toncelli <i>Lanthanide Ions: from Visible to Mid-Infrared Emission</i>	
12.30-12.45	Oral lecture 19 Matthias Adlung <i>Unrevealing the optical properties of Dy<sup>2+</sup> and Ho<sup>2+</sup> doped in different halide host lattices</i>	
12.45-13.00	Oral lecture 20 Takahiko Horiai <i>Crystal Growth of Ce-doped (Gd,Y)ScO<sub>3</sub> Scintillators by Micro-Pulling-Down Method and Their Optical Properties</i>	
13.00-15.00	<b>Break</b>	
<b>Parallel session 13 (Conference room A) and 14 (Conference room B): 15.00-16.30</b> <b>13 Thermometry (Session chair: Zeljka Antic)</b> <b>14 Glasses and Crystals (Session chair: Teresa Delgado)</b>		
15.00-15.15	Oral lecture Vitaliy Shkoldin <i>STM nanolithography of hybrid structures for tunnel junction based localized optical sources</i>	Oral lecture 27 Akira Yoshikawa <i>Bulk crystal growth of Ce:GAGG and Ce:La-GPS single crystal from the melt using precious metal crucible-free OCCC Method</i>
15.15-15.30	Oral lecture 21 Jur de Wit <i>Temperature-dependent Photoluminescence</i>	Oral lecture 28 Aytaç Gürhan Gokçe <i>Europium doped bismuth borate</i>

	<b><i>Saturation Effects in <math>K_2SiF_4: Mn^{4+}</math></i></b>	<b><i>glasses: from structure to luminescence properties</i></b>
<b>15.30-15.45</b>	Oral lecture 22 Karolina Elzbieciak -Piecka <b><i><math>GdAl_3(BO_3)_4 :Cr^{3+}</math> for light-induced heat generation</i></b>	Oral lecture 29 Ryuga Yajima <b><i>Growth and scintillation properties of a novel <math>K_2CeCl_5/LiCl</math> eutectic for thermal neutron detection</i></b>
<b>15.45-16.00</b>	Oral lecture 23 Thomas P. van Swieten <b><i>Enormous photonic artefacts in luminescence nanothermometry</i></b>	Oral lecture 30 Yuui Yokota <b><i>Growth of <math>La_2Zr_2O_7</math> and <math>La_2Hf_2O_7</math> Single Crystals with High Melting Point by Novel Growth Method and their Luminescent Properties</i></b>
<b>16.00-16.15</b>	Oral lecture 24 Julijana Cvjetinovic <b><i>Optical properties of diatom algae: research methods and potential applications</i></b>	Oral lecture 31 Leonid Oster <b><i>Improved linearity of dose response in the thermoluminescence of gamma irradiated <math>LiF:Mg,Ti</math> (TLD-100) following optical excitation</i></b>
<b>16.15-16.30</b>	Oral lecture 25 Dmitry Sovyk <b><i>Opal-like photonic structures made of single crystal diamond</i></b>	Oral lecture 32 Melis Gökçe <b><i>Optical properties of <math>Sm^{3+}</math> ions doped bismuth germanate glasses for photonic applications</i></b>
<b>16.30-16.45</b>	Oral lecture 26 Kirill Boldyrev <b><i>High-resolution luminescent studies of <math>LiYF_4:Ho</math> for sensor applications</i></b>	Oral lecture 33 Vitezslav Jary <b><i>Optical properties of <math>InGaN</math> epitaxial layers doped by Si and Ge</i></b>

<b>Friday, September 2<sup>nd</sup>, 2022</b>	
<b>Hotel Falkensteiner</b>	
<b>8.00-10.00</b>	<b>Registration (Main conference room)</b>
<b>Session 15 (Main conference room): 9.00-12.55</b> <b><i>Tuning Optical Properties</i></b> <i>Session chairs: Alessandra Toncelli, Markus Suta,</i>	
<b>9.00-9.35</b>	Keynote lecture 6 Mikhail Brik <b><i>Crystal field and first-principles calculations of optical properties of the Mn<sup>4+</sup>-doped phosphors</i></b>
<b>9.35-10.00</b>	Invited lecture 19 Andrzej Suchocki <b><i>Luminescence of d5 transition-metal ions under high-pressures</i></b>
<b>10.00-10.15</b>	Oral lecture 34 Deniz Koçyiğit <b><i>Effect of silver (Ag) nanoparticles on the luminescence properties of Dy<sup>3+</sup> ions in borate glasses for solid state lighting applications</i></b>
<b>10.15-10.30</b>	Oral lecture 35 Arnoldus J. van Bunningen <b><i>Thermal Luminescence quenching in Mn<sup>2+</sup></i></b>
<b>10.30-11.00</b>	<b>Coffee Break</b>
<b>11.00-11.35</b>	Keynote lecture 7 Aleksandra Djurisic (ONLINE) <b><i>Quasi-2D halide perovskite light emitting materials and devices</i></b>
<b>11.35-12.00</b>	Invited lecture 20 Ivana Evans <b><i>Inorganic phosphors: structural characterisation across the length scales</i></b>
<b>12.00-12.15</b>	Oral lecture 36 Dasheng Lu <b><i>Thermoresponsive polymeric nanolenses magnify the thermal sensitivity of single upconverting nanoparticles</i></b>
<b>12.15-12.30</b>	Oral lecture 37 Mykhailo Chaika <b><i>On the time dependence of white emission intensity and the temperature of transparent Cr-doped YAG ceramics</i></b>
<b>12.30-12.45</b>	Oral lecture 38 Linda Dalipi <b><i>2D luminescence thermometry using dual low power LED excitation and single-band emission</i></b>
<b>12.45-13.15</b>	<b>Closing Ceremony</b>

## POSTER PRESENTATIONS:

- P1. Bernhard Walfort  
Fundamental Loading-Curve Characteristics of the Persistent Phosphor  $\text{SrAl}_2\text{O}_4:\text{Eu}^{2+},\text{Dy}^{3+},\text{B}^{3+}$
- P2. Kyoung Jin Kim  
A novel ternary eutectic of  $\text{CeCl}_3/\text{LiCl}/\text{CaCl}_2$  as a thermal neutron scintillator
- P3. Ondřej Lalinsky  
Accelerated cathodoluminescence response of  $\text{YAP}:\text{Ce},\text{Mg}$  single-crystalline films
- P4. Blagovest Napoleonov  
ALD DEPOSITED  $\text{ZnO}:\text{AL}$  FILMS ON RIGID AND FLEXIBLE SUBSTRATES FOR ORGANIC/INORGANIC HYBRID STRUCTURES
- P5. Dragana Tošić  
Anthocyanins from aronia powder as pH-responsive sensors
- P6. Sergei Cherevko  
APPLICATION OF AMPHIPHILIC CARBON DOTS FOR POTENTIAL IMPROVEMENT OF LIGHT HARVESTING IN OPTOELECTRONIC DEVICES
- P7. Simona Premcheska  
BIOCOMPATIBLE UPCONVERTING  $\text{Yb}^{3+}\text{-Er}^{3+}$  CO-DOPED INORGANIC  $\text{Na}_3\text{ZrF}_7$  NANOPARTICLES AND HYBRID  $\text{PMO}@\text{Na}_3\text{ZrF}_7$  AND  $\text{PMO}@\text{NaYF}_4$  NANOPARTICLES FOR TEMPERATURE SENSING IN THE PHYSIOLOGICAL RANGE
- P8. Ivana Vukoje  
CHARGE TRANSFER COMPLEX FORMATION BETWEEN SILVER NANOPARTICLES AND AROMATIC AMINO ACIDS: EXPERIMENTAL AND DFT STUDY
- P9. Hiroki Kawamoto  
Composition dependence of recombination behavior of electrons and holes at high temperature in Ag-doped phosphate glasses

- P10. Bruno Viana  
Control of defects and applications of persistent luminescence materials at various sizes
- P11. Kyoung Jin Kim  
Crystal growth and scintillation properties of Mo co-doped Ce:Gd<sub>3</sub>Al<sub>2</sub>Ga<sub>3</sub>O<sub>12</sub> single crystal scintillators
- P12. Masanori Koshimizu  
Development of Ce-doped GAGG nanoparticle scintillators using sol–gel method
- P13. Renaud Valois  
Development of new transparent ceramics for laser applications in the 1.7 – 2.7 μm window
- P14. Atsushi Sato  
Development of plastic scintillators doped with silole-based aggregation-induced-emission phosphors for light yield improvement
- P15. Masanori Koshimizu  
Development of thermoluminescent Li<sub>2</sub>CaSiO<sub>4</sub>:Tm ceramics for neutron detection
- P16. Abbi Mullins  
Dual-emission luminescence thermometry using LaGaO<sub>3</sub>:TM<sup>3+</sup>, Ln<sup>3+</sup> phosphors
- P17. Milica Perić  
EFFECT OF THE LEVEL DEGENERACY ON KERR NONLINEARITY IN THREE-LEVEL LADDER-TYPE SYSTEM
- P18. Keleshek B. Zhangylyssov  
Electron-hole trapping centers in alkaline earth metal sulfates with Mn impurity
- P19. Mateusz Pieprz  
ENHANCEMENT OF Nd<sup>3+</sup> EMISSION THROUGH Cr<sup>3+</sup>→Nd<sup>3+</sup> ENERGY TRANSFER IN La<sub>3</sub>Ga<sub>5</sub>GeO<sub>14</sub>: Nd<sup>3+</sup>, Cr<sup>3+</sup>
- P20. Luidgi Giordano

Enhancement of red upconversion in NaBiF<sub>4</sub>:Yb,Er(Ho) by Ce<sup>3+</sup> co-doping

P21. Vesna Lazic

EPR STUDY OF CHARGE TRANSFER COMPLEX BETWEEN TiO<sub>2</sub> AND NON-AROMATIC LIGAND SQUARIC ACID

P22. Andrei Racu

EVALUATION OF SITE SYMMETRIES OF Er<sup>3+</sup> DOPED CaF<sub>2</sub> AND BaF<sub>2</sub> CRYSTALS BY HIGH RESOLUTION PHOTOLUMINESCENCE SPECTROSCOPY

P23. Nevena Celic

FABRICATION OF ZnO/SnO<sub>2</sub> NANOCOMPOSITES FOR EFFICIENT WATER REUSE

P24. Zeljka Nikitovic

FOUR WAVE MIXING (FWM) IN ALKALI ATOM VAPORS

P25. Naomoto Hayashi

Growth of Er-doped La<sub>2</sub>Hf<sub>2</sub>O<sub>7</sub> Single Crystal by Micro-Pulling-Down Method and Optical Properties

P26. Jelena Pajovic

Hybrid metal nanostructures as photodynamic therapy agents: the case of riboflavin-functionalized gold nanoparticles

P27. Nando Gartmann

Indications for Local processes in SrAl<sub>2</sub>O<sub>4</sub>:Eu<sup>2+</sup>, Dy<sup>3+</sup>: Fitting of the Luminescence Decay

P28. Vadim Yu. Zhmykhov

JUDD-OFELT PARAMETERS OF SINGLE CRYSTALS OF THE BaF<sub>2</sub> - SrF<sub>2</sub> - ErF<sub>3</sub> SOLID SOLUTIONS

P29. João Gonçalves

LASER-INDUCED PHOTOCATALYTIC HYDROGEN PRODUCTION OF La<sub>0.25</sub>Nd<sub>0.75</sub>AlO<sub>3</sub> IN METHANOL

P30. Verena Fritz

Lost in the heat of the moment: bringing losses in persistent phosphors to light with a set of thermoluminescence measurements

- P31. Jovana Periša  
MgAl<sub>2</sub>O<sub>4</sub>:Cr<sup>3+</sup> probe for luminescence thermometry in the physiological temperatures range
- P32. Katarina Milenkovic  
ENHANCEMENT OF Eu<sup>3+</sup> EMISSION INTENSITY IN LaPO<sub>4</sub>/Ag NANOPARTICLES
- P33. Bojana Milicevic  
HYDROTHERMAL SYNTHESIS AND PROPERTIES OF Yb<sup>3+</sup>/Tm<sup>3+</sup> DOPED Sr<sub>2</sub>LaF<sub>7</sub> UPCONVERSION NANOPARTICLES
- P34. Sanja Kuzman  
Multiple temperature readings from Ca<sub>6</sub>Ba(PO<sub>4</sub>)<sub>4</sub>O:Mn<sup>5+</sup> steady-state near-infrared emission in a physiological temperature range
- P35. Nikola Cichocka  
MICROWAVE DRIVEN HYDROTHERMAL GROWTH OF Eu<sup>3+</sup>/Ce<sup>3+</sup> DOPED Y<sub>3</sub>Al<sub>5</sub>O<sub>12</sub> NANOPOWDERS - OPTICAL AND STRUCTURAL CHARACTERIZATION
- P36. Anastasiia Babkina  
Mn<sup>4+</sup>/Mn<sup>2+</sup> conversion in alkali-zinc-germanate glass-ceramics
- P37. Alexandra Nicolae-Maranciuc  
NANOPARTICLES SIZE DISTRIBUTION ASSESSMENT BY DIRECT OPTICAL PARTICLE TRACKING
- P38. Kirill N. Boldyrev  
X-RAY AS A METHOD FOR MANIPULATION OF COLOR CENTERS  
CHARGE STATE IN DIAMONDS
- P39. Mirijam Lederer  
Novel thermal decomposition syntheses route of Ln<sup>3+</sup>-doped LaF<sub>3</sub>
- P40. Akito Watanabe  
Optical and scintillation properties of a tetraphenylethylene crystal exhibiting aggregation-induced emission
- P41. Teresa Delgado

PERSISTENT LUMINESCENCE NANOPARTICLES FOR  
BIMODAL BIOIMAGING IN THE NIR-I / II  
TRANSPARENCY WINDOW

P42. Celina Matuszewska

PERSISTENT LUMINESCENCE OF UNDOPED ZINC  
GALLOGERMANATES

P43. Jelena Papan Djaniš

HIGHLY STABLE MAGNETO-FLUORESCENT COLLOID  
BASED ON BARIUM HEXAFERRITE NANOPATELETS  
WITH POLYPHENOL COATING

P44. Vesna Đorđević

PHOTOLUMINESCENT PROPERTIES OF THE  $\text{Eu}^{3+}$  ION IN  
 $\text{YNbO}_4\text{-LuNbO}_4$  SOLID SOLUTION

P45. Mina Medić

DUAL-ACTIVATED LUMINESCENCE INTENSITY RATIO  
THERMOMETRY IN  $\text{Y}_3\text{Al}_5\text{O}_{12}$  NANOCRYSTALS

P46. Tamara Gavrilovic

THERMAL HISTORY MEASUREMENTS USING THE  
RATIO OF  ${}^5\text{D}_0 \rightarrow {}^7\text{F}_1$  AND  ${}^5\text{D}_0 \rightarrow {}^7\text{F}_2$   $\text{Eu}^{3+}$  EMISSIONS

P47. Milena Simić

Population Control of the Five-Level V-System by the Laser  
Interaction

P48. Guna Doke

RED AND NIR PERSISTENT LUMINESCENCE OF  
MAGNESIUM GERMANATE BASED MATERIALS

P49. Karina Fonseca

Red persistent luminescent nanofibers: a flexible and water-  
stable composite prepared by electrospinning

P50. Aleksandr Litvin

ROOM TEMPERATURE DOPING OF PEROVSKITE  
NANOCRYSTALS AND NANOPATELETS WITH NIR-  
EMITTING LANTHANIDE IONS

P51. Danijela Danilovic

Silver bismuth iodide rudorffites as potential lead-free hybrid photovoltaic materials

P52. Nina Kozlova

SPECTROPHOTOMETRIC TECHNIQUES FOR STUDYING THE PROPERTIES OF OPTICAL MATERIALS

P53. Aleksandra Strinic

Stability of necklace beams in media with cubic-quintic nonlinearity

P54. Elena Dobretsova

STRUCTURAL FEATURES OF THE BIXBYITE-TYPE YTTRIUM SCANDATE: X-RAY POWDER DIFFRACTION AND MICRO-RAMAN SPECTROSCOPY

P55. Daria Belikova

STRUCTURE, OPTICAL AND SCINTILLATION PROPERTIES OF HYBRID BROMOCUPRATES (I) BASED ON METHYLAMMONIUM AND FORMAMIDIUM CATIONS

P56. Radoš Raonić

SYNTHESIS AND CHARACTERIZATION OF (Y,Me)NbO<sub>4</sub>:Er, Yb PHOSPHORS: INFLUENCE OF LOCAL LATTICE DISORDERS

P57. Maja Szymczak

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