

ICL2026

International Conference on Luminescence 2026

September 21-26, 2026

Kyoto, Japan

Plenary

Venue: Clock Tower Centennial Hall (Yoshida Campus)

Plenary Chair: Yoichi Kawakami

16:00 - 17:00
(1P-01) AlN-Based Deep-UV Laser Diodes: A New Frontier in Luminescence Science and Engineering
*Hiroshi Amano^{1,2}, Akira Yoshikawa^{2,1}, Ziyi Zhang^{2,1}, Maki Kushimoto^{1,2}
¹ Nagoya Univ.(Japan)
² Ultec Inc.(Japan)

Plenary Chair: Susumu Noda

17:00 - 18:00
(1P-02) White light sources based on nitride semiconductor light emitting devices and phosphors
*Takashi Mukai¹
¹ Nichia Corporation(Japan)

Lecture Hall A

Venue: 3F of ILAS bldg.

Spectroscopy *Chair: Miki Hasegawa*

13:20 - 13:50

(1A-01) Sensitizing lanthanide luminescence

*Jean-Claude Georges Bünzli^{1,2}

¹ Ecole Polytechnique Federale de Lausanne (EPFL)(Switzerland)

² Hong Kong Polytechnic University(China)

13:50 - 14:20

(1A-02) Eu-doped GaN red LEDs: From breakthrough to innovation

*Yasufumi Fujiwara¹

¹ Ritsumeikan University(Japan)

LED phosphor *Chair: Jean-Claude Georges Bünzli*

14:40 - 15:10

(1A-03) Unveiling halide perovskite photophysics through luminescence spectroscopy

*Yoshihiko Kanemitsu¹

¹ Kyoto University(Japan)

15:10 - 15:40

(1A-04) Exploration of phosphor focusing on single particle and local structure

*Takashi Takeda¹

¹ National Institute for Materials Science(Japan)

Lecture Hall B

Venue: 3F of ILAS bldg.

Nanomaterial/Upconversion *Chair: Fiorenzo Vetrone*

13:20 - 13:50

(1B-01) The Whisper of Water: Density Rhythms Around Luminescent Nanoprobes

*Luis Carlos¹

¹ University of Aveiro(Portugal)

13:50 - 14:20

(1B-02) Photon avalanches in nanoparticles and the critical fluctuations that drive them

*P James Schuck¹, N Fardian-Melamed¹, Y Karube¹, C.-L. Chung¹, A. Ray¹, A. Alharmoodi¹, V. Quiros Cordero¹, L. Passini², Y. Liu², A. Skripka³, B. E. Cohen², E. M. Chan²

¹ Columbia University(USA)

² Lawrence Berkeley National Lab(USA)

³ Oregon State University(USA)

Nanomaterial/Upconversion *Chair: Luis Carlos*

14:40 - 15:10

(1B-03) Rare Earth Based Nanoplatfroms: From Luminescent Imaging to Theranostic Strategies in Nanomedicine

*Fiorenzo Vetrone¹

¹ INRS, Université du Québec(Canada)

15:10 - 15:40

(1B-04) Engineering upconversion nanoparticles for imaging, sensing, and diagnostics

*Jiajia Zhou¹

¹ University of Technology Sydney(Australia)

Plenary

Venue: Lecture Hall A (3F of ILAS bldg.)

Plenary *Chair: Jumpei Ueda*

09:00 - 10:00

(2P-01) Luminescence of Lanthanides in Water and Ice

*Andries Meijerink¹

¹ Utrecht University(Netherlands)

Plenary *Chair: Philippe Goldner*

10:00 - 11:00

(2P-02) Photonic-Crystal Surface-Emitting Lasers (PCSELS) - Physics and Applications -

*Susumu Noda¹

¹ Kyoto University(Japan)

Plenary *Chair: Setsuhisa Tanabe*

11:20 - 12:20

(2P-03) Advanced Organic Light-Emitting Diodes by Controlling Precise Charge Transfer Phenomena

*Chihaya Adachi¹

¹ Kyushu University(Japan)

Lecture Hall A

Venue: 3F of ILAS bldg.

Spectroscopy *Chairs: Ru-Shi Liu, Jakoah Brgoch*

14:20 - 14:50

(2A-01) Shifting Eu^{2+} Emission Bands to low Energies

*Claudia Wickleder¹

¹ University of Siegen(Germany)

14:50 - 15:20

(2A-02) Crystal field theory, DFT and machine learning methods in application to optical materials

*Mikhail G. Brik^{1,2,3,4}

¹ University of Tartu(Estonia)

² Chongqing University of Posts and Telecommunications(China)

³ Vinča Institute of Nuclear Sciences (Serbia)

⁴ Jan Długosz University(Poland)

15:20 - 15:50

(2A-03) Nanophotonics to unravel the excited-state dynamics of lanthanides

*Freddy Rabouw¹, Sander Vonk¹, Thomas van Swieten¹, Tim Senden¹, Tim Prins¹, Andries Meijerink¹

¹ Utrecht University(Netherlands)

15:50 - 16:20

(2A-04) Luminescent nanoparticles for advanced biomedical devices

*Daniel Jaque Garcia¹

¹ nanoBIG, Universidad Autónoma de Madrid(Spain)

LED phosphor *Chairs: Claudia Wickleder, Freddy Rabouw*

16:40 - 17:10

(2A-05) From Pairs to Clusters: Engineering *Chromium* Interactions in Blue-LED Excitable NIR Phosphors

*Ru-Shi Liu¹

¹ National Taiwan University(Taiwan)

17:10 - 17:40

(2A-06) Machine Learning as a Tool for Discovering Cr^{3+} NIR-Emitting Phosphors

*Jakoah Brgoch^{1,2}, Amit Kumar^{1,2}

¹ University of Houston(USA)

² Texas Center for Superconductivity(USA)

17:40 - 18:10

(2A-07) Precise Refinement and Advanced Applications of NIR Emission Phosphors

*Chun Che Lin¹, Wan-Yun Chu¹

¹ National Taipei University of Technology(Taiwan)

18:10 - 18:30

(2A-08) AI-Assisted Screening and Binder-Free Formation of Color Conversion Layers via Solvent-Tuned Plasticity in Lead-Free Manganese Halides

*Won Bin Im¹

¹ Hanyang University(Korea)

Lecture Hall B

Venue: 3F of ILAS bldg.

Quantum photonics *Chairs: Andries Meijerink, Michael F Reid*

14:20 - 14:50

(2B-01) Rare earth doped thin films for optical quantum technologies

*Philippe Goldner¹

¹ PSL University/CNRS(France)

14:50 - 15:20

(2B-02) Direct Observation of Optical Pathways in Distorted Photonic Crystals

*Kyoko Kitamura¹

¹ TOHOKU University(Japan)

15:20 - 15:50

(2B-03) Engineering Luminescence Dynamics via Plasmonics and Nanophotonics with Collective Effects

*Koichi Okamoto¹

¹ Osaka Metropolitan University(Japan)

15:50 - 16:20

(2B-04) Engineering strong optical transitions in europium-doped CaF₂ nanoparticles for quantum technologies

Michael D Moull¹, Diana Serrano², Philippe Goldner², Nicholas L Jobbitt³, Evgenij Vasilenko³, Vishum Unni Chorakkunnath³, David Hunger³, Jamin LB Martin¹, Vladimir Golovko¹, Jon-Paul Wells¹, *Michael F Reid¹

¹ University of Canterbury(New Zealand)

² Chemie ParisTech(France)

³ Karlsruhe Institute of Technology(Germany)

Nanomaterial/Upconversion *Chairs: Xiaogang Liu, Bruno Viana*

16:40 - 17:10

(2B-05) Deep-tissue Decoding Biological Complexity: NIR Fluorescent Probes for Dynamic Multiplexed Imaging In Vivo

*Fan Zhang¹

¹ Fudan University(China)

17:10 - 17:40

(2B-06) Photon Avalanche emission for novel sensing and imaging

*Artur Bednarkiewicz¹, Malgorzata Misiak¹, Katarzyna Prorok¹, Grzegorz Bekarski¹

¹ Institute of Low Temperature and Structure Research, Polish Academy of Sciences(Poland)

17:40 - 18:10

(2B-07) Optical properties of organic-inorganic hybrid superlattice ZnTe(en)_{0.5} with ultra-thin ZnTe sheets

*Yong Zhang¹

¹ University of North Carolina at Charlotte(USA)

18:10 - 18:30

(2B-08) Excitation density dependence of time-resolved spectra of multiexciton superfluorescence from CuCl quantum dots

*Kensuke Miyajima¹, Gen Fujioka¹, Akira Ishikawa²

¹ Tokyuu University of Science(Japan)

² Univresity of Yamanashi(Japan)

Room C

Venue: Center bldg. South-wing Rm11

LED phosphor *Chairs: Won Bin Im, Chun Che Lin*

14:20 - 14:40

(2C-01) SWIR-to-SWIR Light Conversion through Lanthanide–Transition Metal Synergy

*Andrey Turshatov¹

¹ Karlsruhe Institute of Technology (Germany)

14:40 - 15:00

(2C-02) High-Pressure effects on NIR-II luminescence of Ni²⁺

*Mikołaj Kamiński¹, Mu-Huai Fang², Sebastian Mahlik¹

¹ Institute of Experimental Physics, University of Gdansk(Poland)

² Research Center for Applied Sciences, Academia Sinica(Taiwan)

15:00 - 15:20

(2C-03) Tunable Near-Infrared Emission via Crystal Field Engineering in Blue-Excitable In³⁺-Substituted Phosphors

*Yu Chieh Huang¹, Ru Shi Liu¹

¹ National Taiwan University (Taiwan)

15:20 - 15:40

(2C-04) Ligand Field Modulation in Cr³⁺-activated Oxides: Pathways to Broadband NIR Luminescence

*Maximilian Stremel¹, Markus Suta¹

¹ Heinrich-Heine-University Düsseldorf(Germany)

15:40 - 16:00

(2C-05) Decoupling Crystal Field Strength from Cr³⁺ Emission in Sulfide Phosphors through Low-Phonon-Enabled Emission Stability and Phase-Boundary Disorder

*Wan-Yun Chu¹, Jiguang Li³, Daiming Tang^{4,5}, Takayuki Nakanishi³, Chun Che Lin^{1,2}

¹ Institute of Organic and Polymeric Materials, National Taipei University of Technology, Taipei 106(Taiwan)

² Research and Development Center for Smart Textile Technology, National Taipei University of Technology, Taipei 106(Taiwan)

³ Research Center for Electronic and Optical Materials, National Institute for Materials Science (NIMS), Tsukuba 305-0044(Japan)

⁴ Research Center for Materials Nanoarchitectonics (MANA), National Institute for Materials Science (NIMS), Tsukuba 305-0044(Japan)

⁵ Institute of Pure and Applied Sciences, University of Tsukuba, Tsukuba 305-8571(Japan)

16:00 - 16:20

(2C-06) Mechanism of new type of sunlight-converter for plant growth and solar cell

*Takatoshi Seto¹

¹ School of Materials and Energy, Lanzhou University(China)

Spectroscopy *Chairs: Kenji Toda, Dagmara Stefanowska*

16:40 - 17:00

(2C-07) Redefining precision in rare-earth spectroscopy: Beyond classical Judd-Ofelt theory

*Jan Hrabovsky^{1,2}, Petr Varak³, Robin Krystufek⁴

¹ FZU - institute of Physics, Czech Academy of Sciences, Prague, Czech Republic(Czech Republic)

² Faculty of Mathematics and Physics, Charles University, Prague, Czech Republic(Czech Republic)

³ Dep. of Inorganic Chemistry, University of Chemistry and Technology, Prague, Czech Republic(Czech Republic)

⁴ Institute of Organic Chemistry and Biochemistry of the CAS, Prague 6 16610, Czech Republic(Czech Republic)

17:00 - 17:20

(2C-08) Influence of Charge Transfer States on Non-Radiative Relaxation Pathways in REF[WO₄]:Eu³⁺

*Priya Pandey¹, B. Knies², I. Hartenbach², M. Suta¹

¹ Heinrich Heine University Düsseldorf(Germany)

² University of Stuttgart(Germany)

17:20 - 17:40

(2C-09) Spectroscopic and Temperature-Dependent Luminescence Properties of Pr³⁺-Activated Fluoride Crystals

*Karolina Kowalska¹, Eugeniusz Zych¹

¹ Faculty of Chemistry, University of Wrocław(Poland)

17:40 - 18:00

(2C-10) High tunability of green and red emission in Pr-doped LaYO_3

*Federico Gonzalez¹, Ana Karina Elizalde-Galicia¹, Rosalba Carrera-Peralta¹, German Lopez-Pacheco¹

¹ Universidad Autonoma Metropolitana-Iztapalapa(Mexico)

18:00 - 18:20

(2C-11) Insights into Ce^{4+} Charge-Transfer Luminescence and $\text{Ce}^{4+}\text{--Yb}^{3+}$ Energy Transfer in Ca_2SnO_4

*Henry Kwan¹, Maren de Jong¹, Erik van der Kolk¹

¹ TU Delft(Netherlands)

18:20 - 18:40

(2C-12) Novel bright UV-C phosphors on the basis of $\text{Lu}_{1-x}\text{Sc}_x\text{PO}_4$ solid solution

*Dmitry Spassky¹, Irina Kudryavtseva¹, Vitali Nagirnyi¹, Leonid Dolgov¹, Artur Tamm¹

¹ Institute of Physics, University of Tartu(Estonia)

Room D

Venue: Center bldg. West-wing

Nanomaterial/Upconversion *Chairs: Fan Zhang, Artur Bednarkiewicz*

14:20 - 14:40

(2D-01) The cause and quantification of elemental migration in lanthanide-doped core—shell nanocrystals

*Ayla J.H. Dekker¹, Vincent R.M. Benning¹, Andries Meijerink¹, Freddy T. Rabouw¹

¹ Utrecht Univ.(Netherlands)

14:40 - 15:00

(2D-02) Polymer-functionalized UCNPs for rapid luminescence lifetime-based sensing

*Emilia Wakulska¹, Wojciech Piotrowski¹, Dominika Wawrzyńczyk¹, Urszula Bazylińska¹

¹ Wrocław University of Science and Technology(Poland)

15:00 - 15:20

(2D-03) Coupling plasmonic effects and host matrix polarizability for luminescence modulation

*Gabriel Moronari¹, Tamires M. Oliveira¹, Paulo Cesar de Sousa Filho¹

¹ University of Campinas(Brazil)

15:20 - 15:40

(2D-04) Multifunctional Magnetic–Luminescent Hybrid Ink with Dual Upconversion and Downshifting Emission for Anti-Counterfeiting Technologies

*Ana Maria Pires^{1,2}, André Lucas Costa^{1,2}, Caique Moureira Tavares^{1,2}, Leonardo Figueiredo Saraiva^{1,2}, Airton Germano Bispo Júnior³, Sergio Antonio Marques Lima^{1,2}, Flavia Artizzu⁴, Camilo Rúben Segura Paredes⁵

¹ Chemistry and Biochemistry Department, São Paulo State University (Unesp), School of Technology and Sciences, Presidente Prudente(Brazil)

² São Paulo State University (Unesp), Institute of Biosciences, Humanities and Exact Sciences, São José do Rio Preto (Brazil)

³ University of São Paulo (USP), São Paulo(Brazil)

⁴ University of Piemonte Orientale "Amedeo Avogadro", Vercelli(Italy)

⁵ University of Chile (UCHile)(Chile)

15:40 - 16:00

(2D-05) In vivo glioblastoma detection using near-infrared autofluorescence imaging

*Fernando Eduardo Matur¹, Qi Zhao¹, Erving Ximendes¹, Daniel Jaque¹

¹ Nanomaterials for Bioimaging Group, Materials Physics Department, Faculty of Science, Autonomous University of Madrid(Spain)

Semiconductor *Chairs: Kyoko Kitamura, Koichi Okamoto*

16:40 - 17:00

(2D-06) Geometry-Dependent Threshold Regimes in Planar Thin-Film Lasers

*Racha Akrou^{1,2}, Hong Hai Nguyen^{1,2}, Karim Elkhoul¹, Iakov Goldberg¹, Paul Heremans^{1,2}, Robert Gehlhaar¹, Jan Genoe^{1,2}

¹ IMEC(Belgium)

² KU Leuven(Belgium)

17:00 - 17:20

(2D-07) Towards Bright Topological Lasers

*Ariel Levenson², Amina Saadani^{1,2}, Keneth Syddall¹, Kaiwen Ji¹, Melissa Hedir², Kamel Bencheikh², Alejandro Yacomotti¹

¹ LP2N(France)

² C2N - CNRS(France)

17:20 - 17:40

(2D-08) Experimental Study of Layer-Number-Dependent Enhancement of Radiative Decay Rates in GaAs Multiple Quantum Wells

*Koki Hayashi¹, Takuya Matsuda^{1,2}, Masaya Nagai¹, Norihiko Sekine³, Hajime Ishihara⁴, Masaaki Ashida¹

¹ The University of Osaka(Japan)

² Osaka Metropolitan University(Japan)

³ National Institute of Information and Communications Technology(Japan)

⁴ Ritsumeikan University(Japan)

17:40 - 18:00

(2D-09) Dislocation-Limited Luminescence Quantum Efficiency in Chemical-Vapor-Deposition Diamond

*Kensuke Matsumoto¹, Yuki Katsuno¹, Soh Teramoto¹, Ryo Ikebe¹, Daiki Totsuka¹, Jan Isberg², Nobuko Naka¹

¹ Kyoto University(Japan)

² Uppsala University(Sweden)

18:00 - 18:20

(2D-10) Structure-property relationships for exciton transport in layered perovskites

*Raquel Utrera-Melero^{1,2}, Antonella Cutrupi¹, Upasana Das¹, Ivan Rivilla³, Davide Spirito⁴, Juan Cabanillas-González², Antonio Isaac Fernández-Domínguez¹, Carolina Sañudo⁵, Beatriz Martín-García³, Jose Sánchez-Costa², Ferry Prins¹

¹ Universidad Autónoma de Madrid(Spain)

² IMDEA Nanociencia(Spain)

³ IKERBASQUE, Basque Foundation for Science(Spain)

⁴ BCMaterials - Basque Center for Materials, Applications, and Nanostructures(Spain)

⁵ Universitat de Barcelona(Spain)

18:20 - 18:40

(2D-11) Relevance of Electron and Hole Transfer in Perovskite Nanocrystals for OptoElectronics Applications

*Manas Kumar Sarangi¹

¹ Assistant Professor(India)

Room E

Venue: Base of ILAS bldg.

Organic molecule/MOF/Complex/OLED *Chairs: Yunqi Liu, Anna Painelli*

14:20 - 14:40

(2E-01) Development of Advanced Luminescent Molecules and Polymers Based on Even-Electron/Odd-Atom Conjugated Systems

*Shunichiro Ito¹, Kazuo Tanaka¹

¹ Kyoto Univ.(Japan)

14:40 - 15:00

(2E-02) Trap-Engineered Persistent Charge Carriers and Photostimulated Readout in Organic Materials

*Dmitry Kovalevskiy¹, Kirill Mitrofanov¹, Liliia Moshniha¹, Yemini S. L. V. Narayana², Kaede Kawaguchi¹, Ryota Kabe¹

¹ Okinawa Institute of Science and Technology(Japan)

² Vignan's Foundation for Science, Technology and Research(India)

15:00 - 15:20

(2E-03) Symmetry- and Substituent-Controlled Singlet-Triplet Energetics in Heptazine Derivatives

*Dominik Madea¹, Ryota Kabe¹

¹ Okinawa Institute of Science and Technology(Japan)

15:20 - 15:40

(2E-04) Highly Efficient ECL Immunosensing via a Stimuli-Responsive Luminophore

*Giorgio Facchetti¹, Isabella Rimoldi¹, Lorenzo Arnal¹, Alessandro Fracassa², Giulia Ferrari¹, Maria Vittoria Balli², Alessia Marconi², Matteo Calvaresi², Luca Prodi², Giovanni Valenti², Luisa De Cola¹

¹ Università degli Studi di Milano(Italy)

² Università di Bologna (Italy)

15:40 - 16:00

(2E-05) Isomer-dependent multicolor solid-state excimer emission of ethynylantracene-substituted pyridines modulated by pressure and co-crystallization

*Hideyuki Takahashi¹, Itaru Tsuchiya², Yoshiki Ozawa², Masaaki Abe², Shuhei Matsumura³, Ayumi Ishii³, Akiko Hori¹

¹ Shibaura Institute of Technology(Japan)

² University of Hyogo(Japan)

³ Waseda University(Japan)

Theoretical modelling and computational methods *Chairs: Masayoshi Mikami, Yuuki Kitagawa*

16:40 - 17:00

(2E-06) Interpreting Emission Trends in Eu²⁺-Activated Phosphors from a Data-Driven Perspective

*Yukinori Koyama¹, Ryusei HAYASAKA², Yuta MATSUSHIMA², Takayuki NAKANISHI¹, Takashi TAKEDA¹, Naoto HIROSAKI¹

¹ National Institute for Materials Science(Japan)

² Yamagata University(Japan)

17:00 - 17:20

(2E-07) High-throughput synthesis of luminescent inorganic thin films by coupling spray-coating deposition and laser irradiation

*Simon Delacroix¹, Amandine Séné¹, Sandrine Tusseau-Nenez¹, Arnaud Lahouati^{1,2}, Yijing Chen¹, Thierry Gacoin¹

¹ Laboratoire de Physique de la Matière Condensée (PMC), CNRS, École Polytechnique – IP Paris(France)

² Aionobios(France)

17:20 - 17:40

(2E-08) From Algorithms to Illumination: Machine Learning for Phosphorescent OLEDs

*George Fitzgerald¹, Sean Ryno¹, Henry Herbol¹, Diana Drennan¹, Gbolade Kayode¹

¹ Universal Display Corporation(USA)

17:40 - 18:00

(2E-09) Erbium and its complexes in semiconductors

*Minseok Choi¹

¹ Inha University(Korea)

18:00 - 18:20

(2E-10) Shaping the photophysical properties in real-sized lanthanide-doped nanoparticles

*Albano N. Carneiro Neto¹

¹ Department of Inorganic Chemistry, University of Santiago de Compostela(Spain)

Area I

Venue: Base of Human and Environmental bldg.

Poster core times differ for odd- and even-numbered posters.

Odd-numbered posters (01, 03, 05, ...): First poster session (12:40-13:50)

Even-numbered posters (02, 04, 06, ...): Second poster session (18:50-20:00)

LED phosphor

(2PT01) $\text{Cr}^{3+}/\text{Ni}^{2+}$ Co-Doped Garnet Phosphors for Broadband NIR pc-LEDs toward Non-Destructive Pesticide Detection

*Monalisha Behera¹, Jatin Dhanuka¹, Sudipta Som¹, Hendrick C Swart²

¹ Shiv Nadar University Chennai(India)

² University of Free state South Africa (South Africa)

(2PT02) Lower-Temperature Synthesis of $\text{Ba}_3\text{Bi}(\text{PO}_4)_3:\text{Eu}^{3+}$ Eulytite Phosphors

*Nagomi Yaba¹, Takeshi Toyama¹, Brahim Elouadi²

¹ Department of Materials and Applied Chemistry, College of Science and Technology, Nihon University(Japan)

² ENSAM-Rabat, Université Mohammed-V(Morocco)

(2PT03) Near-Infrared Emission of La-Doped $\text{Eu}_2\text{Si}_5\text{N}_8$

*Seika Tokumitsu^{1,2}, Takashi Takeda¹, Kohsei Takahashi¹, Junichi Tatami², Motoyuki Iijima², Naoto Hirotsaki¹

¹ National Institute for Materials Science(Japan)

² Yokohama National University(Japan)

(2PT04) A-Site Cation Control and Symmetry Dependence of Perovskite-Type $\text{ATiO}_3:\text{Eu}^{3+}, \text{Li}^+$ (A = Ca, Sr, Ba) Phosphors for Advanced Photoluminescent Textile Security Applications

*Gabriel Nicolo Azores De Guzman^{1,2}, Jeff Ryan S. Magalong¹, Ace B. Gapiza¹, Julius L. Leaño, Jr.¹

¹ Philippine Textile Research Institute, Department of Science and Technology(Philippines)

² Science and Technology Fellows Program, Department of Science and Technology(Philippines)

(2PT05) $\text{LiGd}_2\text{Si}_3\text{N}_5\text{O}_2$ - Unveiling Blue and Orange Emission via Ce^{3+} and Eu^{2+} Activation in the First Rare-Earth Oxonitridolithosilicate

*Mike van Os¹, Kilian Rießbeck¹, Hubert Huppertz¹

¹ Universität Innsbruck(Austria)

(2PT06) Tunable Near-Infrared Emission in Cr^{3+} Doped $\text{Li}(\text{In},\text{Y})\text{O}_2$ Solid Solutions Through Crystal-Field Engineering

*Likhit Balse¹, Hirohisa Miyata¹, Jumpei Ueda¹

¹ Japan Advanced Institute of Science and Technology (JAIST)(Japan)

(2PT07) $\text{Li}_4\text{GeO}_4:\text{Cr}^{4+}$ Phosphors Exhibiting Broadband NIR-II Emission via Reductive Heat Treatment

*Aunsaya Eksatit¹, Takayuki Nakanishi¹, Takuya Ohmi¹, Akihiro NAKANISHI¹, Jian Xu²

¹ National Institute for Materials Science(Japan)

² Kyoto University(Japan)

(2PT08) Investigation of Monovalent ions Induced Luminescence Enhancement in $\text{La}_2\text{Zr}_2\text{O}_7:\text{Eu}^{3+}$ for WLEDs and Latent Fingerprint Visualization Applications

*Vijayata Jagtap¹, Astha Tyagi¹, C. Shivakumara¹

¹ Indian Institute of Science, Bangalore, India(India)

(2PT09) Tuning Photoluminescence in $\text{Ca}_3(\text{VO}_4)_2:\text{Dy}^{3+}$ via Li^+ Co-doping: A Single Phosphor Platform for Lighting, Forensic, and Security Applications.

*Deepak Kumar¹, Praveen Chandra Pandey¹

¹ Indian Institute of Technology (BHU), Varanasi(India)

(2PT10) Defects elucidation of Eu^{3+} -activated novel lithium-potassium borate ($\text{Li}_{1.8}\text{K}_{0.2}\text{B}_4\text{O}_7$) phosphor

*Rahul Awasthi¹, Arun Kumar R², Dinesh Sankar Reddy³

¹ Optical Materials Group, School of Sciences (Physics), National Institute of Technology Andhra Pradesh(India)

² Department of Physics, National Institute of Technology Warangal(India)

³ Department of Chemical Engineering, National Institute of Technology Andhra Pradesh(India)

(2PT11) Artificial Sodalites derived from Minerals: A Sustainable Alternative to Lighting

*Amrithakrishnan Bindhu^{1,2}, Sami Vuori², Miradije Rama³, Esa Heilimo⁴, Mika Lastusaari⁵

¹ Asst. Prof. Physics, GPTC Vandiperiyar, Idukki, Kerala(India)

² Dept. Chemistry, Univ. Turku, Turku(Finland)

³ Research Scientist, Geological Survey of Finland, Espoo(Finland)

⁴ Prof. Geology, Dept. Geography & Geology, Univ. Turku, Turku(Finland)

⁵ Prof. Chemistry, Dept. Chemistry, Univ. Turku, Turku(Finland)

(2PT12) Energy transfer and color tunability in Sm^{3+} co-doped with $\text{Sr}_3\text{La}_2\text{B}_4\text{O}_{12}:\text{Dy}^{3+}$ phosphors for high-performance WLEDs

*Beny Jermila S¹, Masilla Moses Kennedy S¹

¹ Sri Sivasubramaniya Nadar College of Engineering, Kalavakkam(India)

(2PT13) Investigation of LFP Development using Na^+ doped Zinc Vanadate Phosphor

*Tanika Chauhan¹, Satyam Chaturvedi¹, Praveen Chandra Pandey¹

¹ Department of Physics, Indian Institute of Technology, Varanasi(India)

(2PT14) Eu^{3+} Doped CaMgB_2O_5 Phosphor for Next-Generation Lighting and Sensing: Recent Trends in Rare-Earth Phosphor Application.

*J Aman Kunjam¹, Durga Prasad Bisen¹, Nameeta Brahme¹, Chitrakant Belodhiya¹, Sivakumar Vaidhyanathan²

¹ S.o.S. in Physics and Astrophysics, Pt. Ravishankar Shukla University, Raipur, Chhattisgarh, India. (India)

² Department of Chemistry, Indian Institute of Technology Hyderabad(India)

(2PT15) Tuneable Blue-to-Red Emission of Bi^{3+} -codoped Fluoride Nanophosphors for LEDs in Agricultural Applications

*Bojana Milicevic¹, Sanja Kuzman¹, Jovana Perisa¹, Ljubica Djacanin Far¹, Aleksandar Ciric¹, Katarina Milenkovic¹, Miroslav D Dramicanin¹

¹ Centre of Excellence for Photoconversion, Vinča Institute of Nuclear Sciences - National Institute of the Republic of Serbia, University of Belgrade(Serbia)

(2PT16) Excitation wavelength and intensity dependence of blinking phenomena in InGaN/GaN single quantum well semiconductors

*Kotaro Oikawa¹, Ruggero Micheletto¹

¹ Yokohama City University(Japan)

(2PT17) Photoluminescence Properties and Crystal Structure of Eu^{2+} -Activated $\text{Ba}_2\text{LiAlSi}_2\text{O}_8$ Blue-Green Phosphor Discovered by Single-Particle-Diagnosis

*AKIHIRO NAKANISHI¹, SHIRO FUNAHASHI², YUKINORI KOYAMA³, HISANORI YAMANE², KOHSEI TAKAHASHI², TAKAYUKI NAKANISHI², NAOTO HIROSAKI², TAKASHI TAKEDA²

¹ Tokushima University(Japan)

² Advanced Phosphor Group, National Institute for Materials Science(Japan)

³ Center for Basic Research on Materials, National Institute for Materials (Japan)

(2PT18) Red-Emitting Eu^{3+} : BaYAl_3O_7 Luminescent Ceramic for Solid-State Lighting and Advanced Photonic Devices

*Aabha Pardhi¹, Nameeta Brahme¹, Durga Prasad Bisen¹

¹ SoS in physics and Astrophysics, Pt. RaviShankarShukla University, Raipur(India)

(2PT19) Structural, optical and thermoluminescence properties of solution combustion derived Dy^{3+} doped $\text{BaAl}_2\text{Si}_2\text{O}_8$ phosphor

*Manash Kalita¹, J.M. Kalita¹

¹ Department of Physics, Cotton University(India)

(2PT20) Sustainable Development Goals (SDGs) - inspired fabrication of phosphor-in-glass (PiG) – based luminescent devices : An eco-friendly approach!

*Arun Kumar Raman¹, Mitrabhanu Behera², Rajashree Panda³, Mahesha K Hegde⁴

¹ National Institute of Technology Warangal(India)

² Adam Mickiewicz University Poznan(Poland)

³ The Maharaja Sayajirao University of Baroda(India)

⁴ National Institute of Technology Andhra Pradesh(India)

(2PT21) Structure-luminescence correlation studies in lanthanide doped $\text{Ca}_2\text{P}_2\text{O}_7$ and $\text{Sr}_2\text{P}_2\text{O}_7$ phosphors

*Parvathy Mallika¹, Sabeena Mannilthodi¹

¹ Department of Physics Cochin University of Science and Technology(India)

(2PT22) Precision LED Excitation Systems for Spectroscopy Studies Across a Broad Spectral Range

*Maciej Grzegorzczak¹, Natalia Majewska²

¹ University of Gdańsk(Poland)

² Adam Mickiewicz University, Poznań(Poland)

(2PT23) Temperature and high-pressure luminescence properties of Cr³⁺-doped Sr₂Ga_(1-x)In_xSbO₆ double perovskite

*Agata Gurzyńska¹, Natalia Majewska^{1,2}, Yu-Te Lee³, Yi-Ting Tsai³, Mu-Huai Fang³, Sebastian Mahlik¹

¹ Institute of Experimental Physics, Faculty of Mathematic, Physics, and Informatics, University of Gdańsk, Wita Stwosza 57, 80-308 Gdańsk(Poland)

² Faculty of Chemistry, Adam Mickiewicz University, Uniwersytetu Poznańskiego 8, 61-614 Poznań(Poland)

³ Research Center for Applied Sciences, Academia Sinica, Taipei 11529(Taiwan)

(2PT24) Advanced Luminescent Security Inks: Achieving High Stability and Selective Excitation for Strategic Anti-Counterfeiting

*Payal Priyadarshini Pradhan¹, HARANATH DIVI¹

¹ NATIONAL INSTITUTE OF TECHNOLOGY WARANGAL(India)

(2PT25) Zero-Concentration Quenching in LiSrLa(MoO₄)₃:Eu³⁺ Phosphors for Multifunctional Applications

*Aravind Kumar^{1,2}, Jumpei Ueda¹, Samuel Paul David²

¹ Japan Advanced Institute of Science and Technology(Japan)

² Vellore Institute of Technology(India)

(2PT26) When Average Structure Fails: Local Symmetry Governs Cr Luminescence in Perovskite Oxides

*Jiazheng Li¹, Jian Xu¹, Jumpei Ueda², Michele Back³, Ruilin Zheng^{4,5}, Natalia Majewska^{6,7}, Setsuhisa Tanabe¹

¹ Kyoto University(Japan)

² Japan Advanced Institute of Science and Technology (JAIST)(Japan)

³ Ca' Foscari University of Venice(Italy)

⁴ Nanjing University of Posts and Telecommunications(China)

⁵ Shanghai Institute of Optics and Fine Mechanics(China)

⁶ University of Gdańsk(Poland)

⁷ Adam Mickiewicz University(Poland)

(2PT27) Humidity-Dependent Degradation Behavior of a UCr₄C₄-Type Green Phosphor

*Jeong Hui Kim¹, Won Bin Im¹

¹ Hanyang Univ.(Korea)

Area II

Venue: Base of Human and Environmental bldg.

Poster core times differ for odd- and even-numbered posters.

Odd-numbered posters (01, 03, 05, ...): First poster session (12:40-13:50)

Even-numbered posters (02, 04, 06, ...): Second poster session (18:50-20:00)

Scintillator

(2PT29) Shallow-Trap Perovskite Scintillators for High-Resolution, Ghosting-Free X-Ray Imaging

*Zhenzhen Zhang¹

¹ Fuzhou University(China)

(2PT30) Investigation of Low-LET and High-LET Radiation Response in Borate Phosphor for LEO Dosimetry

*Naresh Degda¹, Sachin Kumar Hazari², Kevil Shah³, Yashesh Gandhi³, Naveen Chauhan²

¹ Department of Physics, Faculty of Science, The Maharaja Sayajirao University of Baroda, Vadodara(India)

² AMOPH division, Physical Research Laboratory, Ahmedabad(India)

³ Department of Applied Physics, Faculty of Technology and Engineering, The Maharaja Sayajirao University of Baroda, Vadodara(India)

(2PT31) Development of radiophotoluminescence materials for real-time neutron measurements

*Go Okada¹, Masanori Koshimizu², Kiyomitsu Shinsho³, Genichiro Wakabayashi⁴, Hiroki Tanaka⁵, Kenichi Watanabe⁶

¹ Kanazawa Institute of Technology(Japan)

² Shizuoka University(Japan)

³ Tokyo Metropolitan University(Japan)

⁴ Kindai University(Japan)

⁵ Kyoto University(Japan)

⁶ Kyushu University(Japan)

(2PT32) Optical and scintillation properties of Y₂O₃:Gd transparent ceramics and their dependence on Gd concentration

*Yuma Saito¹, Shota Otake¹, Takumi Kato¹, Kenichi Watanabe², Daisuke Nakauchi¹, Noriaki Kawaguchi¹, Takayuki Yanagida¹

¹ Nara Institute of Science and Technology(Japan)

² Kyushu Univ.(Japan)

(2PT33) AI-Assisted High-Resolution X-ray Imaging with Solution-Processed Radioluminescence Scintillators

*Qiushui Chen¹

¹ Fuzhou University(China)

(2PT34) Photoluminescence and scintillation properties of Eu-doped La₂O₃-Al₂O₃-SiO₂ glasses

*Akihiro Nishikawa¹, Takumi Kato¹, Daisuke Nakauchi¹, Noriaki Kawaguchi¹, Takayuki Yanagida¹

¹ Nara Institute of Science and Technology(Japan)

(2PT35) Optical and dosimetric properties of ns²-ion-doped sodium borosilicate glasses for personal dosimeter

*Shota Otake¹, Takumi Kato¹, Akihiro Nishikawa¹, Daisuke Nakauchi¹, Noriaki Kawaguchi¹, Takayuki Yanagida¹

¹ Nara Institute of Science and Technology(Japan)

(2PT36) Yields of Auger-free luminescence in different chloride compounds

*Masanori Koshimizu¹

¹ Shizuoka University(Japan)

(2PT37) Luminescence Properties of Beryllium Aluminate Single Crystals Induced by Ionizing Radiation

*Ryosei Takahashi¹, Kai Okazaki¹, Haruaki Ezawa¹, Daisuke Nakauchi¹, Takumi Kato¹, Noriaki Kawaguchi¹, Takayuki Yanagida¹

¹ Nara Institute of Science and Technology(Japan)

(2PT38) Optical modulation in nanoscintillators based on ZnGa₂O₄:Cr and/or REE for X-PDT

*Shaian José Anghinoni¹, Paulo César de Sousa Filho², Verônica de Carvalho Teixeira³

¹ Brazilian Center for Research in Energy and Materials (CNPEM/LNLS) and Institute of Chemistry (UNICAMP)(Brazil)

² Institute of Chemistry (UNICAMP)(Brazil)

³ Brazilian Center for Research in Energy and Materials (CNPEM/LNLS)(Brazil)

(2PT39) Copper Chloride Cluster Compounds with 18-crown-6–AlkaliMetal Complexes: Phosphors for Radiation Detection

*Itsuki Gonda¹, Keishi Yamabayashi¹, Daisuke Nakauchi¹, Takumi Kato¹, Noriaki Kawaguchi¹, Takayuki Yanagida¹

¹ Nara Institute of Science and Technology(Japan)

(2PT40) Synthesis and Characterization of NaBiF₄:Ln³⁺ nanoscintillators

*Paulo Vinicius Brancacio de Simone¹, Verônica De Carvalho Teixeira², Hermi Felinto de Brito¹

¹ IQUSP(Brazil)

² LNLS-CNPEM(Brazil)

(2PT41) Photoluminescence and radioluminescence properties of Sm-doped Gd₂SrAl₂O₇ single crystals

*Keiichiro Miyazaki¹, Daisuke Nakauchi¹, Kenichi Watanabe², Takumi Kato¹, Noriaki Kawaguchi¹, Takayuki Yanagida¹

¹ Nara Institute of Science and Technology(Japan)

² Kyushu Univ.(Japan)

(2PT42) Experimental Cathodoluminescence Apparatus for Temperature-Dependent Studies of Luminescent Materials

*Ondrej Zapadlik^{1,2}, Martin Nikl¹

¹ Institute of Physics of the Czech Academy of Sciences(Czech Republic)

² Crytur(Czech Republic)

(2PT43) Luminescence and Scintillation properties of Ce-doped Tb₃Sc₃Al₃O₁₂ crystals

*Daisuke Nakauchi¹, Takumi Kato¹, Noriaki Kawaguchi¹, Takayuki Yanagida^{1,2}

¹ Nara Institute of Science and Technology(Japan)

(2PT44) Photoluminescence and scintillation properties of ZnO-BaO-TeO₂-CsBr-PbBr₂ glasses

*Takumi Kato¹, Akihiro Nishikawa¹, Daisuke Nakauchi¹, Noriaki Kawaguchi¹, Takayuki Yanagida¹

¹ Nara Institute of Science and Technology(Japan)

(2PT45) Near-infrared scintillation properties of Nd-doped BaO-Tl₂O-P₂O₅ glasses

*Keita Miyajima¹, Akihiro Nishikawa¹, Takumi Kato¹, Daisuke Nakauchi¹, Noriaki Kawaguchi¹, Takayuki Yanagida¹

¹ Nara Institute of Science and Technology(Japan)

(2PT46) Optical and radiation induced luminescence properties of Eu-doped NaGd(WO₄)₂ single crystals

*Hiromi Kimura¹, Kodai Makino^{1,2}, Daiki Shiratori², Kensei Ichiba³, Takayuki Yanagida⁴, Hidetoshi Kato¹, Yutaka Fukuchi², Takeshi Fujiwara¹

¹ National Institute of Advanced Industrial Science and Technology(Japan)

² Tokyo University of Science(Japan)

³ Kansai University(Japan)

⁴ Nara Institute of Science and Technology(Japan)

(2PT47) Mechanochemical Synthesis of Lead-Free Cs₃Cu₂I₅:Mn²⁺ Nanocrystals:A Versatile Platform for White-Light LEDs and High-Resolution X-Ray Imaging

Tong Yu¹, *Hancheng Zhu¹, Xintong Zhang¹, Yichun Liu¹

¹ Northeast Normal University(China)

(2PT48) Host-cation effect on radio-photoluminescence properties of isostructural Eu-doped KSrPO₄ and KBaPO₄ ceramics

*Daiki Shiratori¹, Akihiro Nishikawa², Go Okada³, Yutaka Fukuchi¹, Takayuki Yanagida²

¹ Tokyo University of Science(Japan)

² Nara Institute of Science and Technology(Japan)

³ Kanazawa Institute of Technology(Japan)

(2PT49) Application of thermoluminescence (TL), continuous optically stimulated luminescence (COSL) and pulsed optically stimulated (POSL) for mixed field neutron–gamma dosimetry using LiF:Mg,Ti (TLD-700)

*Leonid Oster¹, Ilan Eliyahu², Yigal Horowitz³, Alex Shapiro¹

¹ Sami Shamon College of Engineering(Israel)

² Soreq Nuclear Research, Center, Yavneh, Israel.(Israel)

³ Physics Department, Ben Gurion University of the Negev, Beer Sheva, 8410501, Israel(Israel)

(2PT50) Achieving Trap-Depth-Tunable Organic Persistent Luminescence through Host Energy-Level Engineering

*Chenhan Zhan¹, Cunjian Lin², Jumpei Ueda², Yixi Zhuang^{1,3}, Rong-Jun Xie^{1,4}

¹ Xiamen University(China)

² Japan Advanced Institute of Science and Technology(Japan)

³ Shenzhen Research Institute of Xiamen University(China)

⁴ State Key Laboratory of Physical Chemistry of Solid Surfaces(China)

Area III

Venue: Base of Human and Environmental bldg.

Poster core times differ for odd- and even-numbered posters.

Odd-numbered posters (01, 03, 05, ...): First poster session (12:40-13:50)

Even-numbered posters (02, 04, 06, ...): Second poster session (18:50-20:00)

Organic molecule/MOF/Complex/OLED

(2PT51) Ligand Engineering of Amphiphilic Glucoconjugates for Tunable Lanthanide Luminescence and (Chir)optical Response

*Parmeshthi Parikh¹, Ajay Kumar Sah²

¹ PhD candidate(India)

² Supervisor(India)

(2PT52) Efficient and stable perovskite solar cells enabled by strong-anchoring bisphosphonic self-assembly molecules with regulated orientations

*Wansheng Zong¹

¹ Xinjiang University(China)

(2PT53) Organometallic Emitters for ElectroChemiluminescence (ECL) Signal Amplification

*Luigi Menduti¹, Nicolò Quadrio¹, Nayla Kusimoto Takeuti¹, Claudia Martinez Asenjo², Alessandro Fracassa², Giovanni Valenti², Luisa De Cola¹

¹ University of Milan(Italy)

² University of Bologna(Italy)

(2PT54) Luminescence of Lanthanides in Unusual Oxidation States

*Steffen Schwamborn¹, Niko Flosbach¹, Maxim Bykov², Mathias Wickleder¹

¹ University of Cologne(Germany)

² Goethe University Frankfurt(Germany)

(2PT55) Efficient solid-state circularly polarised luminescence in polar crystals incorporating chiral Eu₃ clusters

*Marta Niemiec¹, Aleksander Hoffman^{1,2}, Jakub J. Zakrzewski³, Fumitaka Kagawa⁴, Szymon Chorazy¹

¹ Faculty of Chemistry, Jagiellonian University, Kraków, 30-387(Poland)

² Doctoral School of Exact and Natural Sciences, Jagiellonian University, Kraków, 30-348(Poland)

³ Department of Chemistry, School of Science, The University of Tokyo, Tokyo, 113-0033(Japan)

⁴ RIKEN Center for Emergent Matter Science (CEMS), Wako, 351-0198(Japan)

(2PT56) Halide-Dependent Emission Tuning in Eu²⁺-Based Low-Dimensional Metal Halides via Local Structural Distortion

*Sanha Choi¹, Won Bin Im¹

¹ Hanyang University(Korea)

(2PT57) Quest for coordination polymers exhibiting nonlinear- and chiro-optical activity in the UV range

*Hubert Dzielak¹, Aleksander Hoffman¹, Jakub Józef Zakrzewski^{1,2}, Shin-ichi Ohkoshi², Szymon Chorazy¹

¹ Faculty of Chemistry, Jagiellonian University(Poland)

² Department of Chemistry, The University of Tokyo(Japan)

(2PT58) Optically Stimulated Luminescence of Coconut Wax for dosimetric applications

*Maurício Maekawa Chaves^{1,2}, Matheus Cavalcanti dos Santos Nunes^{1,2}, Paulo Roberto Costa¹, Carina Ulsen¹, Neilo Marcos Trindade¹

¹ University of São Paulo(Brazil)

² State University of São Paulo(Brazil)

(2PT59) Tuning Emission of Iodinated MOF Linkers through Environment and Framework Formation

*Jean Patrick Weber¹, Martin Breugst², Uwe Ruschewitz¹

¹ University of Cologne(Germany)

² Technische Universität Chemnitz(Germany)

(2PT60) Enhanced solid-state emission and guest-recognition of 9,10-dihydro-9,9-dimethylacridine-based dicarbonyl compounds

*Asaka Nara¹, Ko Kanehisa¹, Hideyuki Takahashi¹, Shuhei Matsumura², Ayumi Ishii², Akiko Hori¹

¹ Shibaura Institute of Technology(Japan)

² Waseda University(Japan)

(2PT61) Beyond Conventional Molecular Emission: Slow Transient Emission Reveals Hidden Long-Lived Charge-Separated States

*Liliia Moshniaha¹, Rengo Yoshioka¹, Ryota Kabe¹

¹ Okinawa Institute of Science and Technology(Japan)

(2PT62) Influence of selective distribution of lanthanides over crystallographic sites on luminescent properties of binuclear β -diketonates

*Victoria Gontcharenko^{1,2}, Trofim Polikovskiy^{1,3}, Daniil Karpenko⁴, Yuriy Belousov^{1,4}, Ilya Taydakov¹

¹ P.N. Lebedev Physical Institute of the Russian Academy of Sciences(Russia)

² Faculty of Chemistry, HSE University(Russia)

³ Landau School of Physics and Research, Moscow Institute of Physics and Technology(Russia)

⁴ Chemistry Department, Moscow State University(Russia)

(2PT63) Formation and photophysical properties of lanthanide coordination polymer crystals with hetero-ligands

*Takayuki Nakanishi¹, Yuichi Hirai¹

¹ NIMS(Japan)

(2PT64) Reversible Phase Transition of Lead-Free Manganese(II) Halides Toward Stimuli-Triggered 4D-Printed Functional Architectures

*Minhyeok Kim¹, Jung Hyeon Yoo¹, Won Bin Im¹

¹ Hanyang University(Korea)

Area IV

Venue: Base of Human and Environmental bldg.

Poster core times differ for odd- and even-numbered posters.

Odd-numbered posters (01, 03, 05, ...): First poster session (12:40-13:50)

Even-numbered posters (02, 04, 06, ...): Second poster session (18:50-20:00)

Semiconductor

(2PT65) Four-photon excitation processes for excitonic luminescence in Cu_2O

*Yuma Furuno¹, Ippei Yamanaka¹, Kohei Eguchi¹, Nobuko Naka¹

¹ Kyoto University(Japan)

(2PT66) Optical Properties of Cr^{3+} in $\text{Mg}_{1-x}\text{Zn}_x\text{Al}_2\text{O}_4$ Spinel: a Systematic HF-DFT Study on Structural and Compositional Influence

*Alexander Platonenko¹, Rostislavs Rostovskis¹, Marina Konuhova¹, Anatoli I Popov¹

¹ Institute of Solid State Physics, Univ. of Latvia(Latvia)

(2PT67) Influence of ZnSe Shell Thickness on Electron Transfer in ZnCl_2 -Passivated ZnSeTe Quantum Dots

*Rahul Singh¹, Won Bin Im¹

¹ Hanyang University, Seoul, South Korea(Korea)

(2PT68) Biodegradable Silver Coated Porous Silicon: A Dual-Modal Platform for Photoluminescence Cell Imaging and SERS Analysis

Hanna Bandarenka¹, Aliaksandr Burko¹, Diana Laputko¹, Abdirash Akilbekov², Zhuldyz Nurlan², Diana Junisbekova², *Alma Dauletbekova²

¹ Applied Plasmonics Laboratory, Belarusian State University of Informatics and Radioelectronics(Belarus)

² Department of Technical Physics, L.N. Gumilyov Eurasian National University(Kazakhstan)

(2PT69) Black Phosphors: Infrared self-trapped exciton luminescence from small bandgap thiovanadates

*Jeffrey Zom¹, Erik van der Kolk¹

¹ Technical University Delft(Netherlands)

(2PT70) Environment-Driven Modulation of NV Luminescence in Nanodiamonds

*Kristi Kanya Saikia¹

¹ Doctoral Student, Graduate School of Environmental, Life, Natural Sciences and Technology, Okayama University(Japan)

Area V

Venue: Base of Human and Environmental bldg.

Poster core times differ for odd- and even-numbered posters.

Odd-numbered posters (01, 03, 05, ...): First poster session (12:40-13:50)

Even-numbered posters (02, 04, 06, ...): Second poster session (18:50-20:00)

Mechanoluminescence

(2PT71) Luminescent characteristics of Ce⁺-doped LuBO₃ powders at extreme conditions of pressure and temperature. Applications in manometry and thermometry

*Ulises R. Rodríguez-Mendoza^{1,3,5}, Christian Hernández-Álvarez¹, Gerardo Gil-de-Cos¹, Antonio Diego Lozano-Gorrín^{2,3}, Javier González-Platas^{1,4,5}, Víctor Lavín^{1,4,5}

¹ Department of Physics. Universidad de La Laguna (Spain)

² Department of Chemistry. Universidad de La Laguna (Spain)

³ INM. Universidad de La Laguna (Spain)

⁴ IUDEA. Universidad de La Laguna (Spain)

⁵ MALTA Consolider Team (Spain)

(2PT73) First-Principles Investigation of Defect Luminescence in ZnO Mechanoluminescent Materials

*Guangfa Yang¹, Koko Otonari¹, Reona Omori¹, Tomoki Uchiyama¹, Ying Chen¹, Xu-Guang Zheng², Chao-Nan Xu¹

¹ Tohoku University (Japan)

² Saga University (Japan)

(2PT75) Unveiling the Triboluminescence Mechanism: How Lamellar Cleavage Drives Luminescence in Chiral Europium Complexes

*Reo Ohno¹, Nikita Madhukar¹, Miki Hasegawa¹

¹ Aoyama Gakuin University (Japan)

Bioimaging

(2PT72) Annealing Temperature Dependent Luminescence Behaviour of Eu³⁺ Doped Calcium Magnesium Silicate with Bioimaging Investigations

*Navya Sara Kuriyan¹, P. S. Ghosh², A. Arya², A. Deepti³, P. S. Baby Chakrapani³, M. Sabeena¹

¹ Department of Physics, Cochin University of Science, Kochi, Kerala and Technology, Kochi, Kerala, India (India)

² Glass & Advanced Materials Division, Bhabha Atomic Research Centre, Mumbai, Maharashtra (India)

³ Center for Neuroscience, Department of Biotechnology, Cochin University of Science and Technology, Kochi, Kerala, India (India)

(2PT74) Luminescent Metal-Chelating Pt(II) Complexes for Targeting Metal-Induced Protein Oligomerization

*Isabella Silvia Rimoldi¹, Matteo Boglioli¹, Isabella Rimoldi¹, Giorgio Facchetti¹

¹ Department of Pharmaceutical Sciences (DiSFarm), University of Milan (Italy)

Plenary

Venue: Lecture Hall A (3F of ILAS bldg.)

Plenary *Chair: Jiajia Zhou*

09:00 - 10:00

(3P-01) Extending the Frontiers of Bioimaging Using Lanthanide Nanoparticles

*Lingdong Sun¹, Chun-Hua Yan¹

¹ Peking University(China)

Plenary *Chair: Daniel Jaque Garcia*

10:00 - 11:00

(3P-02) Turning Scattering into Vision

*Xiaogang Liu¹

¹ National University of Singapore(Singapore)

Lecture Hall A

Venue: 3F of ILAS bldg.

Nanomaterial/Upconversion *Chairs: Pieter Dorenbos, Martin Nikl*

11:20 - 11:50

(3A-01) From Synthesis to Sensing: Designing Luminescent Ln-Doped Nanoparticles

*Eva Hemmer¹

¹ University of Ottawa, Department of Chemistry and Biomolecular Sciences(Canada)

Persistent phosphor *Chairs: Pieter Dorenbos, Martin Nikl*

14:00 - 14:30

(3A-02) Energy storage in persistent phosphors: mechanism, limitations and workarounds

*Philippe Smet¹, Daniel Rytz², Pieter Geiregat¹, David Van der Heggen¹

¹ Ghent University(Belgium)

² Brevator Sarl(Switzerland)

14:30 - 15:00

(3A-03) Advancements in Persistent Phosphors: Hole-Detrapping, Electric Charging and Defect-Controlled Transparent Ceramics

*Jumpei Ueda¹

¹ Japan Advanced Institute of Science and Technology(Japan)

15:00 - 15:30

(3A-04) Trap-Engineered Organic Luminescent Materials for Persistent and Stimulated Emission

*Ryota Kabe¹

¹ Okinawa Institute of Science and Technology Graduate University(Japan)

15:30 - 15:50

(3A-05) Shedding Light on Afterglow: New Methods to Rationalize Persistent Luminescent Materials

*Gabriel Lozano¹, Manuel Romero¹, Victor Castaing², Hernán Míguez¹

¹ Institute of Materials Science of Seville, Spanish National Research Council (CSIC), Seville.(Spain)

² Laboratoire de Physique de la Matière Condensée (PMC), CNRS, Ecole Polytechnique-Institut Polytechnique de Paris(France)

15:50 - 16:10

(3A-06) Near-Infrared Luminescence of Ce³⁺-Doped α -YFS

*Yuuki Kitagawa¹, Kenji Shinozaki¹, Jumpei Ueda²

¹ National Institute of Advanced Industrial Science and Technology (AIST)(Japan)

² Japan Institute of Advanced Science and Technology (JAIST)(Japan)

Scintillator *Chairs: Yuriy Zorenko, Go Okada*

16:40 - 17:10

(3A-07) Heavy perovskite and garnet single crystal scintillators: state of art and perspectives

*Martin Nikl¹

¹ Institute of Physics of the Czech Academy of Sciences(Czech Republic)

17:10 - 17:40

(3A-08) Recent research on near infrared emitting scintillators

*Takayuki Yanagida¹, Keita Miyajima¹, Kai Okazaki¹, Takumi Kato¹, Daisuke Nakauchi¹, Noriaki Kawaguchi¹

¹ Nara Institute of Science and Technology(Japan)

17:40 - 18:00

(3A-09) Bypassing the Self-Absorption Limit in CsPbBr₃ Scintillators via Tandem Heterostructures with Copper-Based Halide

*Chao-Yu Peter Chen¹

¹ Dept. Photonics, National Cheng Kung University(Taiwan)

18:00 - 18:20

(3A-10) Persistent phosphorescence and dual emission phosphors for neuromorphic photonic computing

*Rute AS Ferreira¹, Lilia MS Dias², Rita Bastos^{2,3}, Lianshe Fu¹, Albano Neto⁴, Paulo S André

¹ Department of Physics and CICECO – Aveiro Institute of Materials, University of Aveiro, 3810-193 Aveiro, Portugal(Portugal)

² Instituto de Telecomunicações, Instituto Superior Técnico, Universidade de Lisboa, 1049-001 Lisbon, Portugal(Portugal)

³ Department of Electrical and Computer Engineering, Instituto Superior Técnico, Universidade de Lisboa, 1049-001 Lisbon, Portugal (Portugal)

⁴ Department of Molecular Theory and Spectroscopy, Max Planck Institut(Germany)

18:20 - 18:40

(3A-11) Ultrafast Scintillation from Lanthanide-Doped Nanocrystals to Millimeter-Scale Assemblies

*Parivash Moradifar¹

¹ Stanford University(USA)

Lecture Hall B

Venue: 3F of ILAS bldg.

Organic molecule/MOF/Complex/OLED *Chairs: Takayuki Nakanishi, Yuichi Hirai*

11:20 - 11:50

(3B-01) Molecular and its Aggregation Design of Hexadentate Organic Ligands for the Rare Earth Luminescence

*Miki Hasegawa¹

¹ Aoyama Gakuin University(Japan)

Organic molecule/MOF/Complex/OLED *Chairs: Takayuki Nakanishi, Yuichi Hirai*

14:00 - 14:30

(3B-02) Disordered States and Phase Transitions of Metal-Organic Frameworks for Optoelectronic Functions

*Satoshi Horike¹

¹ Kyoto University(Japan)

14:30 - 15:00

(3B-03) Luminescent lanthanide coordination polymers and aggregates for environmental sensing applications

*Yasuchika Hasegawa¹

¹ Hokkaido University(Japan)

15:00 - 15:30

(3B-04) Bridging Molecules and Nanoparticles: Composition-Controlled Luminescence in Molecular Cluster Aggregates

*Muralee Murugesu¹

¹ University of Ottawa(Canada)

15:30 - 16:00

(3B-05) Exploring functions and properties of lanthanide complexes at nanoscale

*Shun Omagari¹, Eisuke Hirao¹, Shun Yoneda¹, Martin Vacha¹

¹ Institute of Science Tokyo(Japan)

16:00 - 16:20

(3B-06) Phosphorescent Metal Complexes for Optoelectronic Applications

*Wai-Yeung Wong¹

¹ The Hong Kong Polytechnic University(Hong Kong)

Thermometer *Chairs: Michele Back, Eva Hemmer*

16:40 - 17:10

(3B-07) The Logic of Luminescence in Single-Molecule Magnets

*Carlos D.S. Brites¹, Jérôme R. M. Long², Luís D. Carlos¹

¹ Phantom-g, CICECO-Aveiro Institute of Materials, Physics Department, University of Aveiro,(Portugal)

² ICGM, Univ. Montpellier, CNRS, ENSCM, Montpellier, 34090 France(France)

17:10 - 17:40

(3B-08) Luminescence Thermometry Beyond the Diffraction Limit

*Andrea Pickel¹

¹ The University of Texas at Austin(USA)

17:40 - 18:00

(3B-09) When Traps Talk and Mn²⁺ Listens: A New Route to Thermal Imaging

*Lukasz Marciniak¹, Yuka Abe¹, Maja Szymczak¹, Justyna Zeler²

¹ Institute of Low Temperature and Structure Research PAS(Poland)

² Faculty of Chemistry, University of Wrocław(Poland)

18:00 - 18:20

(3B-10) Merging the fields of luminescent thermometry and ferroelectricity by functionalizing cyanido metal complexes

*Szymon Chorazy¹, Pawel J. Bonarek^{1,2}, Michal Liberka¹, Mikolaj Zychowicz^{1,2}, Jan Rzepiela¹, Jakub J. Zakrzewski^{1,3}, Karol Wolski¹, Junhao Wang⁴, Hiroko Tokoro⁴, Shin-ichi Ohkoshi³

¹ Faculty of Chemistry, Jagiellonian University(Poland)

² Doctoral School of Exact and Natural Sciences, Jagiellonian University(Poland)

³ Department of Chemistry, School of Science, The University of Tokyo(Japan)

⁴ Department of Materials Sciences, Institute of Pure and Applied Sciences, University of Tsukuba(Japan)

18:20 - 18:40

(3B-11) Are garnet phosphors underrated?

*Eugeniusz Zych¹, Dagmara Stefanowska¹, Joanna Trojan-Piegza¹, Justyna Zeler¹, Paulina Bukowska¹

¹ University of Wroclaw(Poland)

Room C

Venue: Center bldg. South-wing Rm11

Spectroscopy *Chairs: Vasilii Khanin, Andrey Turshatov*

14:00 - 14:20

(3C-01) Phase-dependent spectroscopic properties of the Nd^{3+} ion in nano- and micro-crystalline BiPO_4 hosts

*Malgorzata Elzbieta Guzik^{1,2}, K.A. Prokop^{1,2}, Y Gouyot³, G Boulon³, M Wilk-Kozubek¹, A.-V. Mudring⁴, J. Cybińska^{1,2}

¹ Łukasiewicz Research Network – PORT Polish Center for Technology Development(Poland)

² University of Wrocław, Faculty of Chemistry(Poland)

³ Univ Lyon, Institute Light Matter (iLM), CNRS-Claude Bernard/Lyon1University(France)

⁴ Intelligent Advanced Materials (iAM), Department of Biological and Chemical Engineering and iNANO, Aarhus University(Denmark)

14:20 - 14:40

(3C-02) Decoding nonradiative pathways in Cr^{3+} -activated oxides via photoelectric spectroscopy

*Natalia Majewska^{1,2}, Miłosz Pol², Yu-Te Lee³, Yi-Ting Tsai³, Tadeusz Lesniewski², Mu-Huai Fang³, Sebastian Mahlik²

¹ Faculty of Chemistry, Adam Mickiewicz University(Poland)

² Institute of Experimental Physics, Faculty of Mathematic, Physics, and Informatics, University of Gdańsk(Poland)

³ Research Center for Applied Sciences, Academia Sinica(Poland)

14:40 - 15:00

(3C-03) Transition metals-based Luminescent Concentrators for broadband Short-Wave Infrared (SWIR) emission

*Maël Plouet¹, Nicolas Caraud¹, François Balembois², Pascal Loiseau¹, Bruno Viana¹

¹ Institut de Recherche de Chimie Paris (IRCP)(France)

² Institut d'Optique Graduate School(France)

15:00 - 15:20

(3C-04) I brought you erbium, you brought me cerium: Tailoring the Er^{3+} NIR emission in oxyfluoride tellurite glasses via CeF_3 incorporation

*Gaston Lozano Calderón¹, Beatriz Helena Costa², Víctor Anthony García Rivera³, Marcos de Oliveira Junior², Euclides Marega Junior², Danilo Manzani¹

¹ São Carlos Institute of Chemistry, University of São Paulo(Brazil)

² São Carlos Institute of Physics, University of São Paulo(Brazil)

³ Physics Department, Institute of Geosciences and Exact Sciences, São Paulo State University(Brazil)

15:20 - 15:40

(3C-05) Multifunctional Luminescence and Nonlinear Optical Properties of Nd^{3+} - Mn^{2+} -Doped ZnS/CaZnOS Heterostructure

*Marta Dominika Gordel-Wójcik¹, Jan Moszczyński², Przemysław Woźny², Marcin Runowski²

¹ Faculty of Chemistry, University of Wrocław(Poland)

² Faculty of Chemistry, Adam Mickiewicz University(Poland)

15:40 - 16:00

(3C-06) Eu^{3+} - Doped Mixed Chalcogenide Phosphors for White LEDs

*Margarita Samoli¹, Jintao Kong^{1,2}, Andries Meijerink¹

¹ Utrecht University(Netherlands)

² Seaborough(Netherlands)

16:00 - 16:20

(3C-07) PHOTOLUMINESCENCE AN EFFECTIVE METHOD FOR THE NON-INVASIVE ANALYSIS OF GEMSTONES OF CULTURAL HERITAGE MASTERPIECES

*Gérard Panczer¹, Roxanne Bauer², Andrea Pazery³

¹ ILM Lyon 1 University(France)

² DUGEM Lyon 1(France)

³ Laboratoire français de Gemmologie(France)

LED phosphor *Chairs: Takashi Takeda, Malgorzata Elzbieta Guzik*

16:40 - 17:00

(3C-08) Innovative Solid-State Fluorination Route to $K_2SiF_6:Mn^{4+}$ Red-emitting Phosphor for High-Performance LED Systems

Chloé RAPATEL¹, Philippe BOUTINAUD¹, Tomy FALCON³, François REVERET³, Katia ARAUJO DA SILVA², *Damien BOYER¹

¹ Clermont Auvergne INP(France)

² University Clermont Auvergne(France)

³ CNRS(France)

17:00 - 17:20

(3C-09) Disorder tolerance in LED phosphor host $CaAlSiN_3$

*Maryia Shymanovich¹, Alexander Squires¹, David Scanlon¹

¹ University of Birmingham(UK)

17:20 - 17:40

(3C-10) Understanding and fixing instability of Ce-doped garnet nanomaterials

*Vasilii Khanin¹, Freddy Rabouw², Robin Vogel², Federico Montanarella¹, Atul Sontakke¹, Jence Mulder¹, Mohamed Tachikiri¹, Mike Krames^{1,3}, Marie Anne van de Haar¹

¹ Seaborough BV(Netherlands)

² Utrecht Univ.(Netherlands)

³ Arkesso LLC(USA)

17:40 - 18:00

(3C-11) Highly Efficient Narrow-Band Green-Emitting Phosphors for Backlight Devices: Advancing High-Definition Display Technologies

*Sudipta Som¹, Jatin Dhanuka¹, Monalisha Behera¹, Somrita Dutta¹, H. C. Swart²

¹ Shiv Nadar University Chennai, India(India)

² University of the Free State(South Africa)

18:00 - 18:20

(3C-12) Synthesis and Photoluminescence properties of Eu^{3+} -doped red-emitting phosphate phosphors for pc-WLED applications

*Chitrkant Belodhiya¹, D.P. Bisen¹, Nameeta Brahme², Ganesh Ram Banjare³, Sanjay Baghel¹, Dipti Sahu¹, Yugbodh Patle¹, Kanchan Tiwari¹, Kiran Verma¹, Garima Dewangan¹, J Aman Kunjam¹

¹ SOS IN PHYSICS AND ASTROPHYSICS PT. RAVISHANKAR SHUKLA UNIVERSITY RAIPUR, 492010, INDIA(India)

² Centre for Nano-Science and Nano Technology, Pt. Ravishankar Shukla University, Raipur, 492010, India (India)

³ Department of Physics, Government Engineering College, Raipur, 492015, India (India)

18:20 - 18:40

(3C-13) Photonic nanomaterials of Nd/Yb-codoped oxides for technological applications: Structural, spectroscopic, and thermal studies

*Lauro June Queiroz Maia¹

¹ Physics Institute, Federal University of Goias(Brazil)

Room D

Venue: Center bldg. West-wing

Thermometer *Chairs: Carlos D.S. Brites, Riccardo Marin*

14:00 - 14:20

(3D-01) Analysis of the nonradiative dynamics of the 5D_3 of Tb^{3+} in huntite-type $REAl_3(BO_3)_4$ (RE = Y, Gd, Lu)

*Duong Pham Thuy¹, Leonardo Ceccon², Marco Bettinelli², Fabio Piccinelli², Markus Suta¹

¹ Heinrich Heine University Düsseldorf (Germany)

² University of Verona and INSTM (Italy)

14:20 - 14:40

(3D-02) 808 nm near infrared excited Ho^{3+} and Tm^{3+} based metal-organic frameworks for luminescent thermometry and photothermal conversion

*Helene Serier-Braut¹, Albenc Nexha², Dasheng Lu³, Maria Cintia Pujol², Jaume Massons², Patricia Haro Gonzalez⁴, Joan Josep Carvajal²

¹ CNRS, Institute of Materials Nantes, Nantes university (France)

² Univ. Rovira i Virgili, Dept. Química Física i Inorgànica, Campus Sescelades, E-43007, Tarragona (Spain)

³ College of Rare Earths, Jiangxi University of Science and Technology, Ganzhou (China)

⁴ Nanomaterials for Bioimaging Group, Facultad de Ciencias, Universidad Autónoma de Madrid (Spain)

14:40 - 15:00

(3D-03) Structural and luminescent properties of photoluminescent sensor for thermal history diagnostic in the 500-1000 °C range

*Lisa Guibbert^{1,2,3}, Etienne Copin², Sandrine Duluard¹, Philippe Brevet³, Florence Ansart¹, Thierry Sentenac²

¹ Univ. Toulouse, Toulouse INP, CNRS, CIRIMAT (France)

² Univ Toulouse, IMT Mines Albi, INSA Toulouse, ISAE-SUPAERO, CNRS, ICA, Albi (France)

³ Safran Helicopter Engines, Avenue Joseph Szydlowski, Bordes, 64510 (France)

15:00 - 15:20

(3D-04) Development of bismuth-doped orthovanadate nanoparticles for sprayable fast response temperature sensitive paints

*Encarnacion Arroyo¹, Victor Castaing², Thierry Gacoin², Corinne Chaneac³, Benoît Fond¹

¹ Department of Aerodynamics, Aeroelasticity and Acoustics (DAAA), ONERA The French Aerospace Lab, Meudon, 92190 (France)

² Laboratoire de Physique de la Matière Condensée (PMC), CNRS, Ecole Polytechnique – Institut Polytechnique de Paris, Palaiseau, 91120 (France)

³ Laboratoire de Chimie de la Matière Condensée de Paris (LCMCP), CNRS, Sorbonne Université, Paris, 75005 (France)

15:20 - 15:40

(3D-05) Internal Validation of Thermometric Readout via Dual Boltzmann and Stark Intensity Ratios in Upconverting Probes

*Leonardo Saraiva¹, Airton Germano Bispo-Jr.², Sergio Antonio Marques Lima¹, Ana Maria Pires¹

¹ São Paulo State University (UNESP) (Brazil)

² Institute of Chemistry, University of São Paulo (USP) (Brazil)

15:40 - 16:00

(3D-06) Mapping the Funnel of Life: Luminescent Nanoprobes as Reporters of Hydration-Water Structural Heterogeneity

*Ramon Raposo Filho¹, Carlos D.S. Brites¹, Luís Carlos¹, Nikita Panov², Riccardo Marin², Daniel Jaque², Fernando Maturi²

¹ CICECO - University of Aveiro (Portugal)

² NanoBIG - Universidad Autónoma de Madrid (Spain)

Nanomaterial/Upconversion *Chairs: Yong Zhang, Kensuke Miyajima*

16:40 - 17:00

(3D-07) Ratiometric luminescent pH sensors based on lignin derived carbon quantum dots

*Karolina Elzbieciak-Piecka¹, Maja Szymczak¹, Lukasz Marciniak¹, Jelena Papan Djaniš^{2,3}

¹ Institute of Low Temperature and Structure Research PAS Wrocław (Poland)

² Faculty of Chemistry and Chemical Technology, Univ. of Ljubljana (Slovenia)

³ Centre of Excellence for Photoconversion, Vinča Institute of Nuclear Sciences, National Institute of the Republic of Serbia, Univ. of Belgrade (Serbia)

17:00 - 17:20

(3D-08) Eu^{3+} doped carbon dots for volatile organic compounds sensing: insights into structure and photoluminescence properties

*Bruno Seiki Domingos Onishi^{1,2}, Leonardo F Saraiva³, Valmor R Mastelaro⁴, Sidney J. L. Ribeiro⁵, Boris Mizaikoff², Danilo Manzani¹

¹ São Carlos Institute of Chemistry, USP, São Carlos(Brazil)

² Institute of Analytical and Bioanalytical Chemistry, Ulm University, Ulm(Germany)

³ School of Technology and Sciences, UNESP, Presidente Prudente, SP(Brazil)

⁴ São Carlos Institute of Physics, USP, São Carlos(Brazil)

⁵ Institute of Chemistry, UNESP, Araraquara(Brazil)

17:20 - 17:40

(3D-09) Wet Chemistry Control of Visible and Near-Infrared Er^{3+} Luminescence in YPO_4 Nanocrystals

Rocio Molina Motos¹, Jose Francisco Fernandez Iozano¹, *Victor Fuertes de la Llave¹

¹ The Institute of Ceramics and Glass (ICV-CSIC)(Spain)

17:40 - 18:00

(3D-10) Temperature behaviour and stability of luminescence of LaAlO_3 sol-gel nanoparticles under synchrotron excitation

*Oksana Chukova¹, Aleksei Kotlov¹, Tetiana Voitenko², Alina Popova³, Ihor Fesych⁴

¹ Deutsches Elektronen-Synchrotron DESY(Germany)

² University of Cambridge(UK)

³ V. N. Karazin Kharkiv National University(Ukraine)

⁴ Taras Shevchenko National University of Kyiv(Ukraine)

18:00 - 18:20

(3D-11) Photoluminescence and energy transfer dynamics in $\text{Ce}^{3+}/\text{Tb}^{3+}$ doped BaF_2 nanoparticles for latent fingerprint detection and anti-counterfeit applications

*Ningombam Yaiphaba¹, Henasurkishore Oinam¹

¹ Manipur University(India)

Room E

Venue: Base of ILAS bldg.

Scintillator *Chairs: Takayuki Yanagida, Mamoru Kitaura*

14:00 - 14:20

(3E-01) Synchrotron radiation in the luminescence research: comparative study of the single crystals and films of Ce^{3+} doped $\text{Gd}_3(\text{AlGa})_5\text{O}_{12}$ garnets, $(\text{Gd,Y,Lu})\text{AlO}_3$ perovskites and $(\text{Gd,Y,Lu})_2\text{SiO}_5$ orthosilicates

*Yuriy Zorenko¹

¹ Kazimierz Wielki University in Bydgoszcz(Poland)

14:20 - 14:40

(3E-02) Growth and characterization of $\text{Y}_2\text{SiO}_5:\text{Ce,Mg}$ single crystals

*Herbert Kindl^{1,2}, Jan Pejchal¹, Romana Kučerková¹, Alena Beitlerová¹, Jiří Antonín Mareš¹, Martin Nikl¹

¹ Institute of Physics of the Czech Academy of Sciences(Czech Republic)

² Department of Inorganic Chemistry, University of Chemistry and Technology, Prague (UCT Prague) (Czech Republic)

14:40 - 15:00

(3E-03) Challenges of growth of $\text{LaAlO}_3:\text{Ce,Cr,Mg}$ single-crystals by micro-pulling-down and its luminescence mechanism

*Frantisek Zajic^{1,2}, Frantisek Hajek¹, Petra Zemenova¹, Jan Pejchal¹

¹ Institute of Physics of the Czech Academy of Sciences (FZU CAS)(Czech Republic)

² Faculty of Nuclear Sciences and Physical Engineering of the Czech Technical University in Prague (FNSPE CTU)(Czech Republic)

15:00 - 15:20

(3E-04) Scintillation of Cd_3SiO_5 pure and 1% Pr^{3+} doped

*Elena Iraê Santos¹, Flávio Maron Vichi²

¹ Departament of Fundamental Chemistry at University of São Paulo(Brazil)

² Departament of Fundamental Chemistry, University of São Paulo(Brazil)

15:20 - 15:40

(3E-05) Reactive Nanocasting as a Route to Rare-Earth Silicate Nanoscintillators for X-ray Photodynamic Therapy

*Rowan Schokkaert¹, Domitille Mostacchi¹, Christophe Dorandeu¹, Christophe Dujardin², Tangi Aubert¹, Aurélie Bessière¹

¹ ICGM, University of Montpellier, CNRS, ENSCM, Montpellier(France)

² Université Lyon1, CNRS UMR5306, ILM, 69622 Villeurbanne(France)

15:40 - 16:00

(3E-06) Ca co-doping Effect on Scintillation Properties of $\text{Y}_3(\text{Al,Ga})_5\text{O}_{12}:\text{Ce}$ Garnet Single Crystals

*Hisato Suezumi^{1,2}, Kei Kamada^{2,3,4}, Masao Yoshino^{2,3}, Rikito Murakami^{2,3,12}, Satoshi Ishizawa^{2,3}, Yuui Yokota^{2,4}, Akira Yoshikawa^{2,3,4}

¹ Graduate School of Engineering, Tohoku University(Japan)

² Institute for Materials Research, Tohoku University(Japan)

³ C&A corporation(Japan)

⁴ New Industry Creation Hatchery Center, Tohoku University(Japan)

16:00 - 16:20

(3E-07) Luminescence properties of Ce^{3+} -doped rare-earth sulfohalides

*Vojtech Vanecek¹, Vitezslav Jary¹, Lubomir Havlak¹, Romana Kucerkova¹, Alena Beitlerova¹, Vladimir Babin¹, Frantisek Zajic^{1,2}, Jan Barta²

¹ FZU AVCR(Czech Republic)

² FNSPE CTU(Czech Republic)

Persistent phosphor *Chairs: Chao-Nan Xu, Philippe Smet*

16:40 - 17:00

(3E-08) Persistent Luminescence in Nanocomposite Thin Films: Photonic Control of Trap Dynamics

*Victor Castaing^{1,2}, Thierry Gacoin¹, Manuel Romero², Gabriel Lozano², Hernán Míguez²

¹ Laboratoire de Physique de la Matière Condensée (PMC), CNRS, Ecole Polytechnique(France)

² Institute of Materials Science of Seville, Spanish National Research Council – University of Seville(Spain)

17:00 - 17:20

(3E-09) The (Glow)curvy Road to Modelling Persistent Phosphors

*Verena Fritz¹, David Van der Heggen¹, Philippe F. Smet¹

¹ Ghent University(Belgium)

17:20 - 17:40

(3E-10) Unraveling the Electronic Structure and Multi-Modal Luminescence of Sm³⁺ Doped Hexagonal BaZrSi₃O₉ Phosphor

*Nameeta Brahme¹, Akesh Kumar¹, Kanchan Tiwari¹

¹ School of Studies in Physics and Astrophysics, Pt. Ravishankar Shukla University, Raipur Chhattisgarh, India(India)

Mechanoluminescence Chairs: Philippe Smet, Chao-Nan Xu

17:40 - 18:00

(3E-11) Elastic mechanoluminescence of rare-earth free ZnO for self-powered near-infrared emissions

*Tomoki Uchiyama^{1,2}, Koki Otonari², Reona Omori², Guangfa Yang², Eiji Nishibori³, Ying Chen⁴, Xu-Guang Zheng^{1,5}, Chao-Nan Xu^{1,2}

¹ Department of Material Science and Engineering, Faculty of Engineering, Tohoku University(Japan)

² Department of Material Science and Engineering, Graduate School of Engineering, Tohoku University(Japan)

³ Department of Physics, Faculty of Pure and Applied Sciences, University of Tsukuba(Japan)

⁴ Global Learning Center, Tohoku University(Japan)

⁵ Department of Physics, Faculty of Science and Engineering, Saga University(Japan)

18:00 - 18:20

(3E-12) Sound- and force-activated luminescence of Mn²⁺-Nd³⁺ for excitation-light-free imaging and thermometry: application in biological systems

*Jan Moszczyński¹, Kevin Soler-Carracedo¹, Justyna Barzowska², Przemysław Woźny¹, Teng Zheng³, Sebastian Mahlik², Dengfeng Peng⁴, Marcin Runowski¹

¹ Adam Mickiewicz University(Poland)

² University of Gdansk(Poland)

³ Hangzhou City University(China)

⁴ Shenzhen University(China)

18:20 - 18:40

(3E-13) Luminescent mechanochromic materials based on copper(I) iodide complexes

*Alexia Rocheteau¹, Hélène Serier-Brault¹, Sandrine Perruchas¹

¹ Nantes Université, CNRS, Institut des Matériaux de Nantes Jean Rouxel, IMN, F-44000 Nantes, France(France)

Area I

Venue: Base of Human and Environmental bldg.

Poster core times differ for odd- and even-numbered posters.

Odd-numbered posters (01, 03, 05, ...): First poster session (12:20-13:30)

Even-numbered posters (02, 04, 06, ...): Second poster session (18:50-20:00)

Spectroscopy

(3PT01) Investigating the Energy Transfer between Eu^{2+} and Mn^{2+} ions in SrZnCl_4

*Bianca Tuschhoff¹, Claudia Wickleder¹

¹ University of Siegen(Germany)

(3PT02) Phototransferred glow curves of potassium feldspar (KAlSi_3O_8)

*Roberto Turibio Ebina Kawanaka Martins¹, Makaiko Chithambo², Neilo Marcos Trindade¹

¹ Universidade de São Paulo(Brazil)

² Rhodes University(South Africa)

(3PT03) The potential of *N*-phosphorylated carboxamides with heteroaromatic rings as ligands sensitizing UV and NIR Ln^{3+} emission utilizing back energy transfer

*Justyna Nasalska¹, Albano Carneiro Neto², Viktor Trush³, Alina Bieńko¹, Agata Białońska¹, Fernando Maturi⁴, Volodymyr Amirkhanov³, Luis Carlos⁴, Oscar Malta⁵, Paula Gawryszewska¹

¹ University of Wrocław(Poland)

² University of Santiago de Compostela(Spain)

³ Kyiv National Taras Shevchenko University(Ukraine)

⁴ University of Aveiro(Portugal)

⁵ Federal University of Pernambuco(Brazil)

(3PT04) Correlation Between Optically Stimulated Luminescence and Thermoluminescence in Brazilian Fluorapatites

*Frantz Sagbvagare Vieira^{1,2}, Matheus Cavalcanti dos Santos Nunes^{1,2}, Neilo Marcos Trindade¹

¹ University of São Paulo (USP)(Brazil)

² São Paulo State University "Júlio Mesquita Filho" (UNESP)(Brazil)

(3PT05) Evaluation of Eu^{3+} site occupancy in $\text{Sr}_3\text{Ca}_2(\text{PO}_4)_3\text{F}$ by spectroscopic analysis

*Goro Aso^{1,2}, Masaaki Yamazaki², Jumpei Ueda¹

¹ Japan Advanced Institute of Science and Technology(Japan)

² SUMITA Optical Glass Corporation Inc.(Japan)

(3PT06) Tailoring Broadband Near-Infrared Luminescence of $\text{Gd}_3\text{Ga}_5\text{O}_{12}:\text{Cr}^{3+}$ by $\text{Zn}^{2+}/\text{Zr}^{4+}$ Co-Substitution

*Meldra Kemere¹, Pavels Rodionovs¹, Anatolijs Sarakovskis¹

¹ Institute of Solid State Physics, University of Latvia(Latvia)

(3PT07) Structural Investigation of Lanthanide β -Diketonate Complexes Using Electron Paramagnetic Resonance (EPR) and Luminescence Spectroscopy

*Marcelo Cecconi Portes¹, Lucca Blois¹, Paulo Roberto da Silva Santos^{2,1}, Livia Benitez¹, Lucas Carvalho Veloso Rodrigues¹, Hermi Felinto de Brito¹

¹ University of São Paulo(Brazil)

² Instituto de Pesquisas Energéticas e Nucleares(Brazil)

(3PT08) Local-Structure Engineering of Bismuth Active Centers in Bi/Ge Co-Doped Silica Glass and Fiber for Ultrabroadband NIR Emission

*Xin Li¹, Ruilin Zheng², Lili Hu¹

¹ Shanghai Institute of Optics and Fine Mechanics, Chinese Academy of Sciences(China)

² College of Science & College of Electronic and Optical Engineering, Nanjing University of Posts and Telecommunications(China)

(3PT09) Luminescence and VUV excitation spectroscopy of Mg_2TiO_4 spinel and its electronic structure

*Vladimir Pakratov¹, Miroslav D Dramicanin², Katarina Milenkovic², Mina Medic², Kirill Chernenko³, Leonid L Rusevich¹, Eugene A Kotomin¹

¹ Institute of Solid State Physics, University of Latvia(Latvia)

² Vinča Institute of Nuclear Sciences – National Institute of the Republic of Serbia(Serbia)

³ MAX IV Laboratory, Lund University(Sweden)

(3PT10) *In situ* reduction of Europium(III) using Ammonium Fluoride

*Gustavo Cecconi Portes¹, Elaine de Mattos¹, Marcelo Portes¹, Israel Costa¹, Hermi de Brito¹, Lucas Rodrigues¹

¹ Institute of Chemistry of the University of São Paulo(Brazil)

(3PT11) Influence of A-site cations on the photoluminescence properties of Eu³⁺-doped AOF (A = La, Y, Lu)

*TOAN DUC NGUYEN¹, Sangwon Wi¹, Yunsang Lee¹

¹ Department of Physics and Integrative Institute of Basic Sciences, Soongsil University(Korea)

(3PT12) Unveiling the local environment of rare earth-doped glass-forming metal-organic frameworks

*Leandro Olivetti Estevam da Silva¹, Beatriz Helena Costa², Bruno Seiki Domingos Onishi¹, Marcos de Oliveira Júnior², Danilo Manzani¹

¹ São Carlos Institute of Chemistry - University of São Paulo(Brazil)

² São Carlos Institute of Physics - University of São Paulo(Brazil)

(3PT13) Luminescence of Pr³⁺ and Yb³⁺ incorporated into Ca_{1-x}Sr_xTiO₃

*Germán López-Pacheco¹, Enrique Barrera-Calva¹, Federico González¹

¹ Universidad Autónoma Metropolitana Unidad Iztapalapa(Mexico)

(3PT14) Luminescence Characterization of YTaO₄, CrTaO₄, and YNbO₄ Relevant to High-Temperature Coatings

*Marina Konuhova¹, Zhakyp Karipbayev², Arturas Zalgas³, Jevgenijs Gabrusenoks¹, Anatoli I. Popov¹

¹ Institute of Solid State Physics, University of Latvia(Latvia)

² L.N. Gumilyov Eurasian National University(Kazakhstan)

³ Institute of Chemistry, Faculty of Chemistry and Geosciences, Vilnius University(Lithuania)

(3PT15) Radiophotoluminescence Properties of Ag-doped SABS Glass

*Caroline Paschoal Fernandes^{1,3}, Go Okada², Rene Rojas Rocca³, Sonia Hatsue Tatum^{1,3}

¹ Department of Electrical Engineering, University of São Paulo(Brazil)

² Co-creative Research Center for Industrial Science and Technology, Kanazawa Institute of Technology(Japan)

³ Department of Marine Sciences, Federal University of São Paulo(Brazil)

(3PT16) Luminescence Response of BaMgF₄ Ceramics under VUV Synchrotron Irradiation

Assel V. Strelkova², Zhakyp Karipbayev², Amangeldy M. Zhunusbekov², Marina Konuhova¹, *Anatoli I. Popov¹

¹ Institute of Solid State Physics, University of Latvia(Latvia)

² L.N. Gumilyov Eurasian National University, Astana (Kazakhstan)

(3PT17) PFAS Detection Powered by Lanthanide Ion Luminescence

*Leonardo Ceccon¹, Silvia Ruggieri¹, Massimo Fant², Alessandro Pellizzaro², Fabio Piccinelli¹

¹ University of Verona(Italy)

² Acque del Chiampo S.P.A.(Italy)

(3PT18) OSL Properties of Ti and Al doped LiMgPO₄ samples

*Sonia Hatsue Tatum^{1,2}, Noemi Aguiar Silva¹, Anna Carolina Zampieri de Oliveira¹, Caroline Paschoal Fernandes², Isadora Augusta Machado Duque², Marcio Yee¹, Rene Rojas Rocca¹, Alvaro de Farias Soares¹

¹ Federal University of São Paulo(Brazil)

² University of São Paulo(Brazil)

(3PT19) White Light Emission of Ce³⁺/Tb³⁺ Doped Bismuth Borate Glasses

*Deniz KOCYIGIT KAPLAN¹

¹ Pamukkale University(Turkey)

(3PT20) Thermoluminescent properties of the GreenSpar lunar regolith simulant exposed to beta irradiation

*Isabela Alves Ferreira^{1,2}, Caio Morelli Vicentini¹, Matheus Cavalcanti dos Santos Nunes^{1,2}, Carina Ulsen¹, Luiz Gustavo Jacobsohn³, Neilo Marcos Trindade¹

¹ University of São Paulo(Brazil)

² São Paulo State University(Brazil)

³ Clemson University(USA)

(3PT21) Tuning optical properties of densified silica glass via high pressure and ultrafast laser excitation

*Junpei Ueda¹, Misora Tsubone¹, Yasuhiko Shimotsuma¹, Yoshio Kono², Keita Kobayashi³

¹ Kyoto university (Japan)

² Kwansei Gakuin University(Japan)

³ Japan Atomic Energy Agency(Japan)

(3PT22) Ytterbium-based coordination compounds: Solid-state emission quantum yield measurement approach

*Ewa Kasprzycka¹, Albano N. Carneiro Neto², Viktor A. Trush³, Volodymyr M. Amirkhanov³, Oscar L. Malta⁴, Paula Gawryszewska-Wilczyńska¹

¹ Univeristy of Wrocław(Poland)

² University of Santiago de Compostela(Spain)

³ Kyiv National Taras Shevchenko University (Ukraine)

⁴ Universidade Federal de Pernambuco(Brazil)

(3PT23) The Origin of Luminescence in Bi-Doped Silica Glass: Local Structures-Modulated Atomic and Electronic Structures of Bi Species

*Jiayuan Chen¹, Ruilin Zheng^{1,2}, Lili Hu¹

¹ Shanghai Institute of Optics and Fine Mechanics(China)

² Nanjing University of Posts and Telecommunications(China)

(3PT24) Luminescence and decay kinetics of magnesium aluminate spinel crystals irradiated with swift heavy ions at different temperatures

*Abdirash Akilbekov¹, Vladimir Skuratov², Nikita Kirilkin², Arseny Kiryakov³, Zhulduz Ospanova¹, Alma Dauletbekova¹

¹ L N Gumilyov Eurasian National University(Kazakhstan)

² Joint Institute for Nuclear Research, Dubna(Russia)

³ Institute of Solid State Chemistry, UB of RAS, Ekaterinburg(Russia)

(3PT25) Regulating the formation of perovskite quantum dots in glass

*Kejie Huang¹, Ruilin Zheng^{1,2}, Jian Xu^{1,3}, Setsuhisa TANABE¹

¹ Kyoto University(Japan)

² Nanjing University of Posts and Telecommunications(China)

³ Global Environmental Studies (GSGES)(Japan)

(3PT26) Unusual photophysical behavior of homo- and heterobinuclear lanthanide compounds generated by short Ln-O-Ln bridges.

*Aneta Lipa¹

¹ University of Wroclaw(Poland)

(3PT27) Eu³⁺ Luminescence as an Optical Probe for Thermal and Pressure-Induced Phase Transition in LaGaO₃ Perovskite

*Koki Meguro¹, Jian Xu^{1,2}, Takayuki Nakanishi³, Setsuhisa TANABE^{1,2}

¹ Kyoto university(Japan)

² Global Environmental Studies (GSGES), Kyoto University(Japan)

³ National Institute for Materials Science (NIMS)(Japan)

(3PT28) NIR photon downshifting via host sensitization in Yb³⁺-doped SrSnO₃

*Isela Padilla Rosales¹, Germán López Pacheco³, Federico Gonzalez³, Elizabeth Chavira², Omar Guillermo Morales¹

¹ Instituto de Ciencias Aplicadas y Tecnología, Universidad Nacional Autónoma de México(Mexico)

² Instituto de Investigaciones en Materiales, Universidad Nacional Autónoma de México(Mexico)

³ Departamento de Ingeniería de Procesos e Hidráulica, Universidad Autónoma Metropolitana-Iztapalapa(Mexico)

(3PT29) Optically stimulated luminescence and Thermoluminescence properties of Al₂O₃:Mg laser sintered ceramic

*Matheus Cavalcanti dos Santos Nunes^{1,2}, Eliane Pinheiro Silva³, Ronaldo Santos Silva³, Neilo Marcos Trindade¹

¹ São Paulo State university(Brazil)

² University of São Paulo(Brazil)

³ Federal University of Sergipe(Brazil)

Area II

Venue: Base of Human and Environmental bldg.

Poster core times differ for odd- and even-numbered posters.

Odd-numbered posters (01, 03, 05, ...): First poster session (12:20-13:30)

Even-numbered posters (02, 04, 06, ...): Second poster session (18:50-20:00)

Thermometer

(3PT31) Luminescent Thermometry Based on Triply Doped $\text{Y}_3\text{Al}_5\text{O}_{12}$ Nanophosphors

*Aleksandra Owczarek¹, Justyna Zeler¹, Eugeniusz Zych¹

¹ University of Wrocław, Faculty of Chemistry(Poland)

(3PT32) Temperature Sensing and Thermal Threshold Indicator Based on $\text{Ca}_{19}\text{Ce}(\text{PO}_4)_{14}:\text{Mn}^{2+}$

*Yuka Abe¹, Maja Szymczak¹, Justyna Zeler², Rafal Szukiewicz³, Łukasz Marciniak¹

¹ Institute of Low Temperature and Structure Research, Polish Academy of Sciences(Poland)

² Faculty of Chemistry, University of Wrocław(Poland)

³ Faculty of Physics, University of Wrocław, Institute of Experimental Physics(Poland)

(3PT33) Thermoluminescent and thermometric properties of $(\text{Cr}^{3+}, \text{Yb}^{3+}, \text{Er}^{3+})$ - doped LaAlO_3

*Dominika Grzesiak¹, Eugeniusz Zych¹, Justyna Zeler¹

¹ University of Wrocław(Poland)

(3PT34) Designing Mn^{4+} Luminescence Kinetics - A Nephelauxetic Approach to Lifetime Thermometry

*Ayisha Basheer¹, Maja Szymczak¹, Michal Piasecki², Alok M Srivastava³, Mikhail G Brik^{2,4,5,6,7}, Łukasz Marciniak¹

¹ Institute of Low Temperature and Structure Research, Polish Academy of Sciences, Wrocław(Poland)

² Faculty of Science and Technology, Jan Długosz University, Częstochowa(Poland)

³ Current Chemicals, Inc, Cleveland(USA)

⁴ School of Integrated Circuits, Chongqing University of Posts and Telecommunications, Chongqing(China)

⁵ Center of Excellence for Photoconversion, Vinča Institute of Nuclear Sciences, University of Belgrade, Belgrade(Serbia)

⁶ Institute of Physics, University of Tartu, Tartu(Estonia)

⁷ Academy of Romanian Scientists, Bucharest(Romania)

(3PT35) $\text{Eu}^{2+}/\text{Eu}^{3+}$ valence control and luminescence tuning by dopant concentration in $\text{SrAl}_2\text{O}_4:\text{Eu}, \text{Dy}$ ceramics laser-sintered in air

*David Sampaio¹, Deyvid Silva¹, Jerre Santos², Marcos Vermelho¹, Miguel Hernández-Rodríguez^{3,4}, Carlos Brites³, Luís Carlos³, John Ballato⁵, Ronaldo Silva⁶

¹ Federal University of Alagoas(Brazil)

² Federal University of Recôncavo of Bahia(Brazil)

³ University of Aveiro(Portugal)

⁴ Universidad de La Laguna(Spain)

⁵ Clemson University(USA)

⁶ Federal University of Sergipe(Brazil)

(3PT36) Photoluminescence properties of tellurite glasses

*Roman Yatskiv¹

¹ Institute of Photonics and Electronics, Czech Academy of Sciences(Czech Republic)

(3PT37) $\text{LuPO}_4:\text{Ln}^{3+}$ as a Radioluminescent Temperature Sensor

*Anna Klecha¹, Justyna Zeler¹, Eugeniusz Zych¹

¹ University of Wrocław, Faculty of Chemistry(Poland)

(3PT38) Sensing Performance of $\text{Ba}_2\text{MO}_4:\text{Mn}^{5+}$ (M=Ge, Si, Ti) Doped Materials: From Crystalline Structure to Luminescence Properties.

*Jacopo Cangiotti¹, Natalia Majewska², Sebastian Mahlik², Jumpei Ueda³, Pietro Riello¹, Michele Back¹

¹ Ca' Foscari University of Venice(Italy)

² University of Gdansk(Poland)

³ Japan Advance Institute of Science and Technology(Japan)

(3PT39) Core-Shell Engineering and Dopant Optimization in Lanthanide-Doped Upconverting Nanoparticles for Enhanced Ratiometric Nanothermometry

*Chi Zhang^{1,2}, Jin-Wen Zhang¹, Xiao-Hang Cao¹, Ling-Dong Sun¹, Chun-Hua Yan¹

¹ Peking University(China)

² University of Rochester(USA)

(3PT40) Fe^{3+} - Cr^{3+} - Eu^{3+} Co-doped LiAl_5O_8 Spinel for Ratiometric Optical Nanothermometry

Daiane Maria Medeiros¹, Tasso Sales¹, Leonardo Clemente¹, William Alves², Ariosvaldo Souza³, André Moura¹, Marcos Rezende², *Carlos Jacinto¹

¹ Instituto de Física- Universidade Federal de Alagoas (Brazil)

² Instituto de Física- Universidade Federal de Sergipe(Brazil)

³ Instituto de Física- Universidade Federal de Mato Grosso(Brazil)

(3PT41) Enhancing Thermal Sensitivity of Tb(III) Emission by Ligand Triplet Energy Escape in a Dinuclear Tb(III)–Nd(III) Complex

*Yusaku Yamaguchi¹, Takuma Nakai¹, Shun Omagari², Mengfei Wang³, Yasuchika Hasegawa^{3,4}, Yuichi Kitagawa^{3,4}

¹ Graduate School of Chemical Sciences and Engineering, Hokkaido University(Japan)

² Department of Materials Science and Engineering, Institute of Science Tokyo(Japan)

³ Faculty of Engineering, Hokkaido University(Japan)

⁴ Institute for Chemical Reaction Design and Discovery (WPI-ICReDD), Hokkaido University(Japan)

(3PT42) Beyond Thermally Coupled Levels: Dual-Center Luminescent Nanothermometry in Eu^{3+} -Doped YVO_4 Nanoparticles

Carlos Jacinto Silva^{1,3}, *Tasso Oliveira Sales¹, Ales Braga Silva¹, João Pedro Leite¹, Andressa Novatski²

¹ Nano-Photonics and Imaging Group, Institute of Physics, Universidade Federal de Alagoas Imaging Group, Institute of Physics, Universidade Federal de Alagoas, 57072-900, Maceio-AL, Brazil.(Brazil)

² Departamento de Física, Universidade Estadual de Ponta Grossa, 4748, CEP 84030-900, Ponta Grossa, PR, Brazil.(Brazil)

³ Programa de Pós-Graduação em Materiais, Centro de Tecnologia, Universidade Federal de Alagoas, 57072-900, Maceio-AL, Brazil.(Brazil)

(3PT43) Visual Optical based Thermometry in Ce^{3+} , Cr^{3+} Co-Doped KGaGeO_4

*Antreena George¹, Maja Szymczak¹, Łukasz Marciniak¹

¹ Institute of Low Temperature and Structure Research, PAS(Poland)

(3PT44) Development of a carbon quantum dot temperature sensing method using machine learning

*Haruta Onishi¹, Yumi Yoshida¹, Kohji Maeda¹, Shingo Sotoma¹

¹ Kyoto Institute of Technology(Japan)

(3PT45) Luminescence Thermometry Based on Structural Phase Transition of $\text{LaGaO}_3:\text{Eu}^{3+}$ Co-doped with Al^{3+} and Sc^{3+}

*Muhammad Tahir Abbas¹, Maja Szymczak¹, Damian Szymanski¹, Justyna Zeler², Marek Drozd¹, Lam Giang³, Lukasz Marciniak¹

¹ Institute of Low Temperature and Structure Research, Polish Academy of Sciences, Wroclaw, 50-422, Poland (Poland)

² University of Wroclaw, Faculty of Chemistry, Wroclaw, 50-383, Poland(Poland)

³ Institute of Materials Science, Vietnam Academy of Science and Technology, Hanoi, Vietnam(Viet Nam)

(3PT46) Cross-Validation of Nanodiamond Quantum Thermometry with Mn-Doped MFG Phosphor Thermometry

*Areasha Kainat¹, MASAZUMI FUJIWARA¹, ASHUTOSH RATHI¹, ALDO MENDIETA², GAVIN SUTTON², ALEX JONES²

¹ Graduate School of Environmental, Life, Natural Science and Technology, Okayama University.(Japan)

² NATIONAL PHYSICAL LABORATORY, NPL(UK)

(3PT47) Structural Phase-Transition-Based Luminescent Platform for Thermal Sensing and Imaging

*Anam Jayaid¹, Malgorzata Kubicka¹, Vasyl Kinzhybalov¹, Marek Drozd¹, Damian Szymanski¹, Maja Szymczak¹, Lukasz Marciniak¹

¹ Institute of Low Temperature and Structure Research, Polish Academy of Sciences, Wroclaw, 50-422, Poland (Poland)

(3PT48) Structure-Driven Modulation of Lanthanide Luminescent Thermometers: Charge-Transfer States and Sensitivity–Range Integral (SRI) evaluation

*Trofim Polikovskiy^{1,2}, Victoria Gontcharenko¹, Ilya Taydakov¹

¹ P. N. Lebedev Physical Institute of the Russian Academy of Sciences(Russia)

² Landau School of Physics and Research, Moscow Institute of Physics and Technology(Russia)

(3PT49) Eu^{3+} based luminescent thermometry in calcite-type structure

*Hirohisa Miyata¹, Yusuke Asai², Kosaku Ohishi², Yuichi Hirai³, Miwa Saito², Teruki Motohashi², Takayuki Nakanishi³, Jumpei Ueda¹

¹ Japan Advanced Institute of Science and Technology(Japan)

² Kanagawa Univ.(Japan)

³ National Institute for Materials Science(Japan)

Area III

Venue: Base of Human and Environmental bldg.

Poster core times differ for odd- and even-numbered posters.

Odd-numbered posters (01, 03, 05, ...): First poster session (12:20-13:30)

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Nanomaterial/Upconversion

(3PT51) Ultra-wideband-responsive photon conversion in lanthanide nanocrystals

*Zhao Jiang¹, Wanwan Li²

¹ University of Cambridge(UK)

² Shanghai Jiao Tong University(China)

(3PT52) Influence of Alkaline-Metals Addition on Up-Conversion Luminescence Intensity of CaTiO₃:Er

*Masayoshi Nagata¹, Tomoki Koikawa¹, Tomoyuki Yamamoto¹

¹ Waseda University(Japan)

(3PT53) Lanthanide Luminescent Materials for Advanced Anti-Counterfeiting and X-ray Imaging

*Lili Xie¹

¹ Fujian Medical University(China)

(3PT54) Selective Sensing of Fe³⁺ Ions Using Ce³⁺ Sensitized BaF₂:Tb³⁺ Nanocrystals: Static Quenching and Inner Filter Effect Mechanism

*Oinam Henasurkishore Singh¹

¹ Manipur University(India)

(3PT55) Indoor Application of Luminescent Solar Concentrators Using Fluorescent Nanocomposite Films of CuInS₂/ZnS Quantum Dots

*Hiroki Koyasu¹, Tetsuhiko Isobe¹, Yoshiki Iso¹

¹ Keio university(Japan)

(3PT56) Observation of polarization fluctuations in single superfluorescent pulses from an ensemble of CuCl quantum dots

*Tomoya Suzuki¹, Akihiro Ito¹, Ryotaro Chiba¹, Jun Ishihara², Kensuke Miyajima¹

¹ Tokyo University of Science(Japan)

² Tohoku University(Japan)

(3PT57) Photoluminescence and energy transfer properties of Mn-doped Zn_{1-x}Cd_xSe alloy quantum dots

*Yuto Osako¹, DaeGwi Kim¹

¹ Osaka Metropolitan University(Japan)

(3PT58) Upconversion luminescence enhancement in UCNP-Metal oxide heterostructures for high resolution imaging

*Sung Woo Jang¹, Won Bin Im¹

¹ Hanyang University(Korea)

(3PT59) Photoluminescence properties of water-soluble CdSe/ZnS quantum dots prepared by a hydrothermal method

*Takumi Ishikawa¹, DaeGwi Kim¹

¹ Osaka Metropolitan University(Japan)

(3PT60) Fano-resonance-driven directional scattering in color conversion layers using SiO₂@TiO₂ core-shell nanoparticles

*Min Ji Kim¹, Won Bin Im¹

¹ Hanyang University(Korea)

(3PT61) Optimizing the red photoluminescence quantum yield of ligand-exchanged CuInS₂/ZnS quantum dots in a PBS solution

*Haowei Tan¹, Yoshiki Iso¹, Tetsuhiko Isobe¹

¹ Keio university(Japan)

(3PT62) Multicolor Upconversion and Downshifting Luminescence in Tri-Doped CaWO_4 Nanophosphors for Advanced Photonic Applications

*Kedukhro Khupfu¹, Naorem Shanta Singh¹

¹ Nagaland University(India)

(3PT63) Change in Intensity Ratio between Red and Green Up-Conversion Luminescence from Er-Doped Oxides

*Tomoki Koikawa¹, Mikhail G. Brik², Tomoyuki Yamamoto¹

¹ Waseda University(Japan)

² University of Tartu(Estonia)

(3PT64) Investigation of thermal effects of X-ray excited optical luminescence by primary thermometry

*Elaine Andrade de Mattos¹, Lucas Carvalho Veloso Rodrigues¹

¹ University of São Paulo(Brazil)

(3PT65) Influence of low phonon energy on Yb^{3+} -sensitized upconversion luminescence in KPb_2Cl_5 nanocrystals

*Małgorzata Misiak¹, Magdalena Sobota¹

¹ Institute of Low Temperature and Structure Research Polish Academy of Sciences, Wrocław, Poland(Poland)

(3PT66) Dual-wavelength-excited upconversion luminescence for UV photonic security in Tm^{3+} -doped garnets

Bingbing Yang¹, Feng Liu¹, *Yanfang Sun¹, Xiao-Jun Wang², Yichun Liu¹

¹ Northeast Normal University(China)

² Georgia Southern University(USA)

(3PT67) Rare Earth Doped $\text{Cs}_3\text{Bi}_2\text{Cl}_9$ for Optical Thermometry and Anticounterfeiting Applications

*Shanas Fatima¹, Santosh Kachhap², Zubair Nabi², Sunil Kumar Singh¹

¹ Indian Institute of Technology, (BHU)(India)

² Shiv Nadar Institute of Eminence(India)

(3PT68) $\text{RbY}_3\text{F}_{10}:\text{Ce}^{3+}, \text{Tb}^{3+}$ Phosphor with Intense Green Emission for Latent Fingerprint Visualization

*Katarina Milenkovic¹, Zoran Ristic¹, Vladimir Pankratov², Anatolijs Sarakovskis², Carlos D. S. Brites³, Luis D. Carlos³, Vesna Djordjevic¹, Miroslav D. Dramicanin¹

¹ Centre of Excellence for Photoconversion, Vinča Institute of Nuclear Sciences—National Institute of the Republic of Serbia, University of Belgrade(Serbia)

² Institute of Solid State Physics, University of Latvia, Riga, Latvia (Institute of Solid State Physics, University of Latvia)(Latvia)

³ Phantom-g, CICECO - Aveiro Institute of Materials, Department of Physics, University of Aveiro(Portugal)

(3PT69) Water-insensitive NIR-I-to-NIR-I Down-shifting Nanoparticles Enable Stable Biomarker Detection at Low Power Thresholds in Opaque Aqueous Environments

*Dongkyu Kang^{1,2}, Suyoen Kim¹, Joonseok Lee¹

¹ Hanyang University(Korea)

² Kyoto University(Japan)

(3PT70) Cu-Doped Layered Double Hydroxide (LDH) nanotubes for CO_2 reduction under supercritical conditions

*Alexandre Candido Teixeira¹, Danilo Mustafa¹

¹ Universidade de São Paulo(Brazil)

(3PT71) Resolving Singlet, Triplet, and Excimer Pathways in Porphyrin to Nedynium-doped Nanoparticles Energy Transfer

*Julia Osmólska¹, Lars van Turnhout¹, Zhongzheng Yu¹, Akshay Rao¹

¹ University of Cambridge(UK)

Area IV

Venue: Base of Human and Environmental bldg.

Poster core times differ for odd- and even-numbered posters.

Odd-numbered posters (01, 03, 05, ...): First poster session (12:20-13:30)

Even-numbered posters (02, 04, 06, ...): Second poster session (18:50-20:00)

Persistent phosphor

(3PT73) Green Persistent Luminescence in Eu²⁺-doped Hackmanite

*Joshua John Baggott^{1,2}, Minnea Tuomisto¹, J. A. Gareth Williams³, Sari Granroth⁴, Ermei Mäkilä⁴, Ari Väisänen⁵, Jani O. Moilanen⁵, Mika Lastusaari¹

¹ Department of Chemistry, University of Turku(Finland)

² University of Turku Graduate School (UTUGS), Doctoral Program in Exact Sciences (EXACTUS)(Finland)

³ Department of Chemistry, Durham University(UK)

⁴ Department of Physics and Astronomy, University of Turku(Finland)

⁵ Department of Chemistry, University of Jyväskylä(Finland)

(3PT74) Tailoring Long-Persistent Luminescence via Activator-Dependent Defect Engineering in CaSnO₃:Tb or Pr for Neuromorphic Computing

*YuJune Kim¹, Sangwon Wi¹, Yunsang Lee¹

¹ Department of Physics, Soongsil University(Korea)

(3PT75) Unveiling the structural determinants of Persistent Luminescence in Mn-Doped Halide Double Perovskites

*Emmanuela Di Giorgio^{1,2}, Francesca Cova³, Marta Campolucci¹, Chiara Solinas¹, Mauro Fasoli³, Alberto Martinelli⁴, Blanka Detlefs², Pieter Glatzel², Federico Locardi¹

¹ University of Genoa(Italy)

² ESRF – The European Synchrotron(France)

³ University of Milano – Bicocca(Italy)

⁴ CNR-SPIN(Italy)

(3PT76) Photonically engineered trap transfer for secure, hierarchical optical storage in electron-trapping phosphors

Lu Chen¹, *Feng Liu¹, Xintong Zhang¹, Yichun Liu¹

¹ Northeast Normal University(China)

(3PT77) Persistent luminescence emission characteristics of Pr³⁺ and Gd³⁺ activated strontium pyrophosphates

*Didzis Salnajs¹, Dace Nilova¹, Guna Doke¹, Jonas Stadulis², Sapargali Pazyzbek², Aleksej Zarkov², Andris Antuzevics¹

¹ Institute of Solid State Physics, University of Latvia(Latvia)

² Institute of Chemistry, Vilnius University(Lithuania)

(3PT78) Triplet Energy Gap-Directed Donor Engineering for Color-Tunable Guest-Host Afterglow Systems

*Tapashi Sarmah¹

¹ Indian Institute of Technology, Guwahati(India)

(3PT79) Laser-Induced Sintering of Luminescent Coatings

*Krisjanis Smits^{2,3,4}, Katrina Krizmane¹, Virginija Vitola¹

¹ Institute of Solid State Physics, University of Latvia, Riga(Latvia)

² Institute of Biomaterials and Bioengineering, Riga Technical University(Latvia)

³ R4ST Ltd(Latvia)

⁴ Institute of Physics and Materials Science, Faculty of Natural Sciences and Technology, Riga Technical University(Latvia)

(3PT80) Thermoluminescent properties of GdAlO₃: Cr³⁺, Sm³⁺, Ho³⁺

*Dominika Jurkowska¹, Eugeniusz Zych¹, Justyna Zeler¹

¹ Faculty of Chemistry, University of Wrocław(Poland)

Lecture Hall A

Venue: 3F of ILAS bldg.

Thermometer *Chairs: Katsuhisa Tanaka, Lukasz Marciniak*

09:00 - 09:30

(4A-01) Light-Driven Frontiers: From Energy Conversion to Health Applications

*Rogéria Rocha Gonçalves¹

¹ University of São Paulo(Brazil)

09:30 - 10:00

(4A-02) Towards Volumetric Luminescence Thermometry

*Erving Ximendes¹, Liyan Ming², Joan Riera-Cayetano¹, Riccardo Marin², Daniel Jaque¹

¹ nanoBIG, Universidad Autónoma de Madrid(Spain)

² IONS, Universidad Autónoma de Madrid(Spain)

10:00 - 10:30

(4A-03) *Ex unum, pluribus*: How to get more from a single sensor

*Riccardo Marin¹, Liyan Ming¹, Araceli de Aquino¹, Nikita Panov¹, Joan Riera¹, Daniel Jaque¹, Erving Ximendes¹

¹ Universidad Autónoma de Madrid(Spain)

10:50 - 11:10

(4A-04) Beyond the Size: The Site Occupation of Pr³⁺, Tb³⁺, and Eu³⁺ in Germanate and Silicate Garnets

*Dagmara Stefanowska¹, Andries Meijerink², Eugeniusz Zych¹

¹ University of Wrocław(Poland)

² Utrecht University(Netherlands)

11:10 - 11:30

(4A-05) Divalent Lanthanide Azides, Ln(N₃)₂ (Ln = Eu, Yb): Synthesis and Luminescence of Binary Lanthanide Nitrogen compounds

*Mathias Wickleder¹

¹ University of Cologne, Department of Chemistry (Germany)

11:30 - 11:50

(4A-06) Low temperature synthesis of halide-QD materials using Novel Water-Assisted Solid-State Reaction method

*Kenji Toda¹, Wataru Hikita¹

¹ Niigata University(Japan)

High Pressure *Chairs: Markus Suta, Marcin Runowski*

13:10 - 13:40

(4A-07) Looking for the Next Ruby

Jacopo Cangiotti¹, Laura Gardini¹, Hirohisa Miyata², Otgondemberel Galaaraidii³, Erdene Norov⁴, Pietro Riello¹, Jumpei Ueda², *Michele Back¹

¹ Ca' Foscari University of Venice(Italy)

² Graduate School of Advanced Science and Technology, Japan Advanced Institute of Science and Technology(Japan)

³ School of Applied Sciences, Mongolian University of Life Sciences(Mongolia)

⁴ School of Engineering & Technology, National University of Mongolia(Mongolia)

13:40 - 14:10

(4A-08) High-Pressure Spectroscopy for Probing Energy Structure and Luminescence Mechanisms in Phosphors

*Sebastian Mahlik¹

¹ University of Gdansk(Poland)

14:10 - 14:40

(4A-09) Luminescence of lanthanides under pressure

*Victor Lavin^{1,4,3}, Juan Enrique Muñoz-Santiuste^{2,3}, Ulises Ruymán Rodríguez-Mendoza^{1,5,3}, Miguel Andrés Hernández-Rodríguez^{1,4}

¹ Faculty of Sciences, University of La Laguna(Spain)

² Department of Physics, Universidad Carlos III de Madrid(Spain)

³ Malta-Consolider Team(Spain)

⁴ IUDEA(Spain)

⁵ IMN(Spain)

14:40 - 15:10

(4A-10) Innovations in High-Pressure Oxonitridoborate Chemistry: From Synthesis to Luminescence

*Hubert Huppertz¹

¹ University of Innsbruck(Austria)

Organic molecule/MOF/Complex/OLED *Chairs: Ryota Kabe, Shun Omagari*

15:30 - 16:00

(4A-11) Perovskite LEDs and Lasers

*Dawei Di¹

¹ Zhejiang University(China)

16:00 - 16:30

(4A-12) Organic/polymeric semiconducting materials for high-performance photoelectronic devices

*Yunqi Liu¹

¹ Institute of Chemistry, Chinese Academy of Sciences(China)

16:30 - 17:00

(4A-13) Fluorescence from solution to the solid state: static and dynamic solvation

*Anna Painelli¹

¹ University of Parma(Italy)

17:00 - 17:30

(4A-14) FRET is not dead, it just smells funny!

*Niko Hildebrandt¹

¹ McMaster University(Canada)

Lecture Hall B

Venue: 3F of ILAS bldg.

Transparent material *Chairs: Tanguy Rouxel, Angela Beth Seddon*

09:00 - 09:30

(4B-01) Innovation in Optical Ceramics

*Akio Ikesue¹

¹ World Lab. Co.(Japan)

09:30 - 10:00

(4B-02) Boosting luminescence in oxide phosphors by the vitrifying-devitrifying approach

*Jianrong Qiu¹

¹ Zhejiang University(China)

10:00 - 10:30

(4B-03) Glass Fibre Lasers for the Molecular Fingerprint Region.

*Angela Beth Seddon¹, Joel J Nunes¹, Boyu Xiao, Mark C Farries¹, David Furniss¹, Łukasz Sójka², Sendy Phang¹, Slawomir Sujecki²

¹ University of Nottingham(UK)

² Wrocław University of Science and Technology(Poland)

10:50 - 11:20

(4B-04) Phosphor-in-glass composites for lighting and energy conversion

*Andréa S. S. de Camargo^{1,4}, Divya Gupta¹, Ricardo Baltieri¹, Shweta Chahal¹, Leonnam Merizio², Marzieh Ghadamyari³

¹ Federal Institute for Materials Research and Testing (BAM)/Friedrich-Schiller University Jena (FSU)(Germany)

² Sao Carlos Institute of Chemistry, University of Sao Paulo(Brazil)

³ FunGlass – Centre for Functional and Surface Functionalized Glass, TnUAD(Slovakia)

⁴ Friedrich Schiller University Jena(Germany)

11:20 - 11:40

(4B-05) Magnetic and Luminescent Garnet Single Crystals Obtained from Controlled Glass Coling

*Marcelo Nalin¹

¹ São Paulo State University(Brazil)

11:40 - 12:00

(4B-06) Directional Control of Photoluminescence from Phosphor plates Using Nanoantenna Stickers

*Shunsuke Murai¹, Hongjie Gao², Katsuhisa Tanaka², Koichi Okamoto¹

¹ Osaka Metropolitan University(Japan)

² Kyoto University(Japan)

Nanomaterial/Upconversion *Chairs: Setsuhisa Tanabe, Mikhail G. Brik*

13:10 - 13:40

(4B-07) There is plenty of energy at the bottom: NIR to visible up-conversion luminescence driven photocatalytic water-splitting

*Pablo Acosta Mora¹, Pedro Esparza¹, Emma Borges¹, Miguel Medina Alayón¹, Javier del-Castillo Vargas¹, Amador Menéndez Veázquez², A.B. García Delgado², C.B. Mullins³, Jorge Méndez Ramos¹

¹ Universidad de La Laguna(Spain)

² Centro Tecnológico IDONIAL(Spain)

³ The University of Texas(USA)

13:40 - 14:10

(4B-08) Persistent luminescence nanoparticles for biosensors and bioimaging in the NIR range

*Bruno Viana¹, Guanyu Cai¹, Celina Matuszewska^{3,1}, Cyrille Richard², Corinne Chaneac³

¹ PSL University, IRCP-CNRS Chimie ParisTech, Paris(France)

² UTCBS-CNRS, INSERM, University Paris Cite, Paris(France)

³ LCMCP-CNRS, Sorbonne University, Paris(France)

14:10 - 14:40

(4B-09) Advances in first-principles calculation of luminescence properties of Eu²⁺/Ce³⁺-activated phosphors

*Masayoshi Mikami¹

¹ Mitsubishi Chemical Corporation(Japan)

14:40 - 15:10

(4B-10) Lanthanide-Doped Luminescent Nanoprobes: from Fundamentals to Bioapplications

*Xueyuan Chen¹

¹ Fujian Institute of Research on the Structure of Matter, Chinese Academy of Sciences(China)

Mechanoluminescence *Chairs: Sebastian Mahlik, Hubert Huppertz*

15:30 - 16:00

(4B-11) Frontiers in Mechanoluminescent Materials: Design, Mechanisms, and Applications

*Chao-Nan XU¹

¹ Tohoku University(Japan)

16:00 - 16:30

(4B-12) Structure–Mechanics–Luminescence Relationships in Mechanically Responsive Molecular Solids

*Yuichi Hirai¹

¹ National Institute for Materials Science(Japan)

16:30 - 16:50

(4B-13) Mechanoluminescence in crystalline inorganic materials: local disorder and the elastic distortion

*Tanguy Rouxel^{1,2}, Xavier Rocquefelte¹, Alexis Duval¹, Setsuhisa Tanabe²

¹ University of Rennes(France)

² University of Kyoto(Japan)

16:50 - 17:10

(4B-14) Sound-to-light conversion

*Marcin Runowski¹, Kevin Soler Carracedo¹, Jan Moszczyński¹, Przemysław Woźny¹, Fang Zhao¹, Justyna Barzowska⁴, Adrian Drozdowski¹, Tomasz Grzyb¹, Teng Zheng², Sebastian Mahlik⁴, Dengfeng Peng³

¹ Adam Mickiewicz University, Faculty of Chemistry, Uniwersytetu Poznańskiego 8, 61-614, Poznań(Poland)

² Hangzhou City University, School of Information and Electrical Engineering(China)

³ Key Laboratory of Optoelectronic Devices, College of Physics and Optoelectronic Engineering, Shenzhen University, Shenzhen 518060(China)

⁴ University of Gdansk, Faculty of Mathematics, Physics and Informatics, Gdansk 80-308(Poland)

17:10 - 17:30

(4B-15) Probing Ultrafast Light Driven Dynamics with an X-ray Free Electron Laser

*Tim van Driel¹

¹ SLAC National Accelerator Laboratory / Stanford University(USA)

Room C

Venue: Center bldg. South-wing Rm11

Dosimeter *Chairs: Taisei Hangai, Ying Lv*

09:00 - 09:20

(4C-01) Stimulated Luminescence as an Integrated Tool for Dosimetry, Defect Studies, and Extreme-Environment Materials Research

Filipe Santos Costa¹, Matheus Cavalcanti dos Santos Nunes^{1,2}, *Neilo Marcos Trindade¹

¹ Institute of Physics - University of São Paulo(Brazil)

² Graduate Program in Science and Technology of Materials - São Paulo State University(Brazil)

09:20 - 09:40

(4C-02) Structural, chemical and thermoluminescent properties of the CSM-LMT-1 lunar regolith simulant

*Caio Morelli Vicentini^{1,2}, Isabela Ferreira^{1,3}, Matheus Nunes^{1,3}, Georgia Pongeluppe¹, Carina Ulsen², Luiz Jacobsohn⁴, Neilo Trindade¹

¹ Institute of Physics/University of São Paulo(Brazil)

² Technological Characterization Laboratory/University of São Paulo(Brazil)

³ Graduate Program in Science and Technology of Materials/São Paulo State University(Brazil)

⁴ Department of Materials Science and Engineering/Clemson University(USA)

09:40 - 10:00

(4C-03) Processes related to phototransfer from deep traps in BeO

*Makaiko Chithambo¹

¹ Rhodes University(South Africa)

10:00 - 10:20

(4C-04) Ce Activated BaB₄O₇ Phosphor for Thermoluminescence Electron Dosimetry

*Kishor Hanumant Gavhane¹, Shailendra S. Dahiwal¹, Sanjay D. Dhole²

¹ Savitribai Phule Pune University, Pune(India)

² Dnyaan Prasad Global University, Pune (DPGU), Pimpri-Chinchwad, Pune(India)

Persistent phosphor *Chairs: Ying Lv, Taisei Hangai*

10:50 - 11:10

(4C-05) Defect related spectroscopic properties of Yb-doped CaF₂ nanocrystals

Giorgio Enrico Gagliardo Briuccia¹, Vitalii Boiko¹, Bogusław Macalik¹, Vladyslav Seminko², Mirosława Pawlyta³, Oleksii Bezkravnyi¹, Andris Antuzevičs⁴, Anatolijs Šarakovskis⁴, *Dariusz Hreniak¹

¹ Institute of Low Temperature and Structure Research, Polish Academy of Sciences(Poland)

² Institute for Scintillation Materials, National Academy of Sciences of Ukraine(Ukraine)

³ Materials Research Laboratory, Silesian University of Technology(Poland)

⁴ Institute of Solid State Physics, University of Latvia(Latvia)

11:10 - 11:30

(4C-06) Spectral Engineering of Invisible Persistent Luminescence from UV to NIR

*Guna Doke^{1,2}, Andris Antuzevičs¹, Pavels Radionovs¹, Guna Kriekē^{1,2}, Aleksej Zarkov²

¹ Institute of Solid State Physics, University of Latvia(Latvia)

² Institute of Chemistry, Vilnius University(Lithuania)

11:30 - 11:50

(4C-07) ZnGa₂O₄:Cr³⁺ persistent luminescence nanoparticles encapsulated in a hybrid nanocarrier for potential biomedical applications

*Piotr Kuich¹, Adrian Cernescu², Urszula Bazylińska¹, Dominika Wawrzynczyk¹

¹ Wrocław University of Science and Technology(Poland)

² neaspec - attocube systems AG(Germany)

11:50 - 12:10

(4C-08) The Impact of Nanostructuring on the Persistent Luminescence of Metal Halides

Emmanuela Di Giorgio¹, Chiara Maria Solinas^{1,2,3}, Philippe F Smet³, Andrea Fasciolo¹, Francesco Di Stasio², Alberto Martinelli⁴, Mauro Fasoli⁵, Francesca Cova⁵, *Federico Locardi¹

¹ Department of Chemistry, University of Genoa, 16146 Genova(Italy)

² Photonic Nanomaterials, Italian Institute of Technology, 16163 Genova(Italy)

³ LumiLab, Department of Solid State Sciences, Ghent University, 9000 Ghent(Belgium)

⁴ CNR-SPIN, 16152 Genova(Italy)

⁵ Department of Materials Science, University of Milano – Bicocca, 20125 Milano,(Italy)

Persistent phosphor *Chairs: Victor Castaing, Jian Xu*

13:10 - 13:30

(4C-09) Study on intrinsic trap centers and rare-earth-ion regulation behaviors in oxynitride persistent luminescence materials

*Ying Lv^{1,2}, Jumpei Ueda¹

¹ Japan Advanced Institute of Science and Technology(Japan)

² Jiangxi University of Water Resources and Electric Power(China)

13:30 - 13:50

(4C-10) Red Persistent Luminescence Properties in Eu²⁺-doped Sr₃Al₂O₅Cl₂ by Controlling Lanthanide Electron Traps

*Taisei Hangai¹, Sana Takagi¹, Jumpei Ueda¹

¹ Japan Advanced Institute of Science and Technology(Japan)

13:50 - 14:10

(4C-11) Defect-engineered Ca₂SnO₄:RE (Sm³⁺, Pr³⁺) Phosphors for Battery Free UV Dose Monitoring

*Yunsang Lee^{1,2}, Sangwon Wi^{1,2}

¹ Soongsil University(Korea)

² Integrative Institute of Basic Sciences(Korea)

14:10 - 14:30

(4C-12) Photonic Neural Network Processing based on Long-Persistent Luminescence and *f-f* Transitions of Luminescent Materials

*Sangwon Wi¹, YuJune Kim¹, N. D. Toan¹, Tae-ung Ha², Ky-ju Lee², Yunsang Lee¹

¹ Soongsil University(Korea)

² Chungnam National University(Korea)

14:30 - 14:50

(4C-13) Persistent Luminescence as Emergent Relaxation in a Disordered Kinetic Landscape

*José Miranda de Carvalho¹

¹ UFABC - Federal University of ABC(Brazil)

14:50 - 15:10

(4C-14) Enhanced Afterglow Properties of Orange-Red Emitting Sr-silicate Nanophosphors for Efficient Biological Applications

Vishnu Vikesh Jaiswal¹, Haranath Divi², Anamika A Jaiswal³, Abdul Azeem P², *Nagabhushana KR¹

¹ Amity University Bengaluru(India)

² National Institute of Technology Warangal(India)

³ IQVIA, Omega, Embassy Tech Square Bangalore(India)

Persistent phosphor *Chairs: Dariusz Hreniak, Victor Castaing*

15:30 - 15:50

(4C-15) Tailoring trap depth distributions in ZnGa₂O₄:Cr³⁺ persistent luminescence nanoparticles for cryopreservation monitoring and biosensing applications

*Celina Matuszewska^{1,2}, Izabel Mazon Anselmo¹, Nadia Touati², Laurent Binet², Zied Ferjaoui³, Cyrille Richard³, Bruno Viana², Corinne Chaneac¹

¹ LCMCP, CNRS, Sorbonne Université (France)

² IRCP, PSL, CNRS, Chimie ParisTech (France)

³ UTCBS, CNRS, INSERM, Université Paris Cité (France)

15:50 - 16:10

(4C-16) H₂O₂-Enhanced Persistent Luminescence of Cr-Doped ZnGa₂O₄ Nanoparticles for Ultrasensitive Biosensing

*Jianhua Liu¹, Yingshuai Liu³, Daniel Scherman², Cyrille Richard²

¹ Xinjiang University (China)

² Université Paris Cité (France)

³ Southwest University (China)

16:10 - 16:30

(4C-17) Defect-mediated luminescence in alkaline earth phosphates

*Andris Antuzevics¹, Didzis Salnajs¹, Guna Doke^{1,2}, Guna Krieke^{1,2}, Sapargali Pazylbek², Aleksej Zarkov²

¹ Institute of Solid State Physics, University of Latvia(Latvia)

² Institute of Chemistry, Vilnius University(Lithuania)

16:30 - 16:50

(4C-18) Multi-layer time-resolved optical authentication using luminescent physical unclonable functions

*Ana Rita Bastos^{1,2}, Lília Dias^{1,4}, Lianshe Fu^{3,4}, Rute A.S. Ferreira^{3,4}, Paulo S.B. André^{2,1}

¹ Instituto de Telecomunicações(Portugal)

² Department of Electrical and Computer Engineering, Instituto Superior Técnico, Universidade de Lisboa(Portugal)

³ Department of Physics, University of Aveiro(Portugal)

⁴ CICECO—Aveiro Institute of Materials, University of Aveiro(Portugal)

16:50 - 17:10

(4C-19) Persistent and Photostimulable Phosphors at Cryogenic Temperatures: Dynamic Trapping and Luminescence

*Joseph Schuyt¹, Hellen Nalumaga¹, Shen Chong¹, Grant Williams¹

¹ Victoria University of Wellington (New Zealand)

17:10 - 17:30

(4C-20) From Thermal Ionization to Modulometric Luminescence

Thermometry: A Frequency-Domain Approach

*Manuel Romero¹, Victor Castaing^{1,4}, Shunsuke Murai², Daniel Rytz³, Gabriel Lozano¹, Hernán Míguez¹

¹ Institute of Materials Science of Seville (CSIC-US)(Spain)

² Department of Physics & Electronics, Graduate School of Engineering, Osaka Metropolitan University(Japan)

³ BREVALOR Sàrl(Switzerland)

⁴ Laboratoire de Physique de la Matière Condensée (PMC), CNRS, Ecole Polytechnique-Institut Polytechnique de Paris(France)

Room D

Venue: Center bldg. West-wing

Nanomaterial/Upconversion *Chairs: Pablo Acosta Mora, Steve Smith*

09:00 - 09:20

(4D-01) Tailoring the Photophysical Properties of Natural Photosensitizers through Selenium Nanoparticle-Surface Interactions

*Lilia Courrol¹, Geovanna Noleto Barnabé¹, Marcia Regina Franzolin², Isabela Santos Lopes¹

¹ Universidade Federal de São Paulo(Brazil)

² Instituto Butantan(Brazil)

09:20 - 09:40

(4D-02) Mechanisms of ligand-assisted transformation from defect to band-edge emission in AgInS₂ quantum dots

Takahiro Seto¹, Taro Takayama¹, *Yasushi Hamanaka¹, Toshihiro Kuzuya²

¹ Nagoya Inst. Tech.(Japan)

² Muroran Inst. Tech.(Japan)

09:40 - 10:00

(4D-03) Unveiling Exciton Fine Structure in Atomically Thin CsPbBr₃ Nanoplatelets

Kaouther Tlili¹, Victor Guilloux², Violette Steinmetz², Kais Boujdaria¹, Emmanuel Lhuillier², Thierry Barisien², Laurent Legrand², Christophe Testelin², *Maria Chamarro²

¹ Université de Carthage, Faculté des Sciences de Bizerte, Laboratoire de Physique des Matériaux : Structure et Propriétés, 7021 Zarzouna, Bizerte(Tunisia)

² Sorbonne Université, CNRS, Institut des NanoSciences de Paris, F-75005, Paris(France)

10:00 - 10:20

(4D-04) Not Making the Cut: Photon-Correlation Evidence Against Quantum Cutting in Yb³⁺ Doped CsPbCl₃ Nanocrystals

*Vincent R.M. Benning¹, Faris Horani², Daniel R. Gamelin², Freddy T. Rabouw¹

¹ Utrecht University(Netherlands)

² University of Washington(USA)

10:50 - 11:10

(4D-05) Synthesis, structural, and optical properties of low-dimensional hybrid lead halide perovskite.

*Dagmara Stefańska¹, Anna Gągor¹, Barbara Popanda¹, Maciej Ptak¹, Mirosław Mączka¹

¹ Institute of Low Temperature and Structure Research PAS(Poland)

11:10 - 11:30

(4D-06) Various doping strategies for inorganic, micrometric halide perovskites and corresponding results

*Mariusz Stefanski¹, Bartosz Bondzior¹, Weronika Jagielowicz¹, Maciej Ptak¹, Bibo Lou², Chong-Geng Ma²

¹ Institute of Low Temperature and Structure Research PAS(Poland)

² School of Optoelectronic Engineering and CQUPT-BUL Innovation Institute, Chongqing University of Posts and Telecommunications, No. 2 Chongwen Road, Nan'an District, Chongqing 400065, China(China)

11:30 - 11:50

(4D-07) High-Throughput Photon Correlation Quantifies Biexciton-Efficiency Heterogeneity in Quantum Shells

*Tjom Arens¹, Mikhail Zamkov², Freddy Rabouw¹

¹ Utrecht University(Netherlands)

² Bowling Green State University(USA)

11:50 - 12:10

(4D-08) Bifunctional molecular materials: exploring the opto-magnetic properties of a mononuclear Yb complex

*Julio Corredoira Vázquez^{1,2}, Paula Oreiro-Martínez¹, Ana M. García-Deibe¹, Jesús Sanmartín Matalobos^{1,2}, Matilde Fondo¹

¹ Departamento de Química Inorgánica, Facultade de Química, Universidade de Santiago de Compostela, 15782 Santiago de Compostela(Spain)

² Institute of Materials (iMATUS), Universidade de Santiago de Compostela, 15782 Santiago de Compostela(Spain)

Thermometer *Chairs: Rogéria Rocha Gonçalves, Erving Ximendes*

13:10 - 13:30

(4D-09) Hybrid thermometry–photodynamic therapy nanoplatfrom fully operating in the NIR range

*Ian Pompermayer Machado¹, Ayse Alici¹, Syed Razi¹, Maximilian Stremel², Markus Suta², Anna M. Kaczmarek¹

¹ NanoSensing Group, Department of Chemistry, Ghent University, Krijgslaan 289-S3, 9000 Gent, Belgium(Belgium)

² Inorganic Photoactive Materials, Institute of Inorganic Chemistry, Heinrich Heine University Düsseldorf, Universitätsstraße 1, 40225 Düsseldorf, Germany(Germany)

13:30 - 13:50

(4D-10) Thermal Sensing in Challenging Environments via Thermoluminescence and Scintillation

*Justyna Anna Zeler¹, Aleksandra Owczarek¹, Dominika Grzesiak¹, Anna Klecha¹, Luís D. Carlos², Eugeniusz Zych¹

¹ University of Wrocław, Faculty of Chemistry(Poland)

² Phantom-g, CICECO-Aveiro Institute of Materials, Department of Physics, University of Aveiro(Portugal)

13:50 - 14:10

(4D-11) Luminescence Thermometry 2.0: Full-Spectrum Machine Learning Approaches to Elevate Temperature Measurement Performance

*Zoran Ristić¹, Aleksandar Ćirić¹, Miroslav Dramićanin¹

¹ Centre of Excellence for Photoconversion, Vinča Institute of Nuclear Sciences - National Institute of the Republic of Serbia, University of Belgrade, Belgrade, Serbia (Serbia)

14:10 - 14:30

(4D-12) Multiparametric Sensing from a Single Luminiscent Platform

*Araceli de Aquino Samper¹, Liyan Ming¹, Riccardo Marin¹

¹ Universidad Autónoma de Madrid(Spain)

14:30 - 14:50

(4D-13) Convolutional Neural Networks-enhanced Luminescence Thermometry

*Liyan Ming¹, Erving Ximendes², Daniel Jaque², Riccardo Marin¹

¹ Intelligent Optical Nanomaterials (IONs) Lab, Universidad Autónoma de Madrid(Spain)

² Universidad Autónoma de Madrid(Spain)

14:50 - 15:10

(4D-14) Reading the Past: $\text{Eu}^{3+}/\text{Eu}^{2+}$ Co-doped Materials as Thermal History Phosphors

*Maja Szymczak¹, Lukasz Marciniak¹

¹ Institute of Low Temperature and Structure Research Polish Academy of Sciences(Poland)

Nanomaterial/Upconversion Chairs: Yasushi Hamanaka, Maria Chamarro

15:30 - 15:50

(4D-15) Statistical Analysis of NIR to Visible Upconversion Luminescence from Single $\text{NaYF}_4:\text{Yb}^{3+},\text{Tm}^{3+}$ Nanoparticles on Plasmonic Substrates

*Steve Smith¹

¹ South Dakota Mines(USA)

15:50 - 16:10

(4D-16) Enhancing Light Extraction in Luminescent Coatings: The Role of Nanocrystal Size and Gold Nanosphere Scatterers

*Arjun Babu¹, François Reveret¹, Audrey Potdevin¹, Federico Cisnetti¹, Kevin Lemoine¹, Geneviève Chadeyron¹, Philippe Boutinaud¹, Emmanuel Centeno², Rafik Smaali², Damien Boyer¹

¹ Université Clermont Auvergne, Clermont Auvergne INP, CNRS, Institut de Chimie de Clermont-Ferrand (ICCF)(France)

² Université Clermont Auvergne, CNRS, SIGMA Clermont, Institut Pascal, Clermont-Ferrand(France)

16:10 - 16:30

(4D-17) A crown ether-ammonium supramolecular platform for luminescent $[\text{Cu}_4\text{I}_6]^{2-}$ cluster phosphors

*Disnel Ferrera¹, Vojtech Jancik², Estrella Ramos¹, Diego Solis¹, Juan de Dios Guzmán², Juan Carlos Alonso¹, Ioantani Álvarez¹, Jesús U Balderas¹

¹ Institute of Materials Research, National Autonomous University of Mexico(Mexico)

² Institute of Chemistry, National Autonomous University of Mexico(Mexico)

16:30 - 16:50

(4D-18) Design of lanthanide MOFs for luminescence thermometry: from directed energy transfer to laser surgery application

*Valentina V Utochnikova¹, Daniil S Koshelev¹, Lyubov O Tcelykh¹, Anastasiia V Orlova¹

¹ Lomonosov Moscow State University(Russia)

Room E

Venue: Base of ILAS bldg.

LED phosphor *Chair: Takatoshi Seto*

09:00 - 09:20

(4E-01) Characterization of defects in red-emitting $\text{ZnTa}_2\text{O}_6\text{:Eu,Li}$ using phototransferred thermoluminescence.

*Fiindje Elias Muliokela Elago^{1,2}, Luyanda Noto¹, Mubarak Yagoub³

¹ Univ. SA(South Africa)

² CB Univ.(Zambia)

³ Univ. J(South Africa)

09:20 - 09:40

(4E-02) Effect on photoluminescence property in mono, di- and trivalent ions co-doped with rare earth ion activated molybdates phosphors for display device applications

*Shivakumara C¹

¹ Indian Institute of Science(India)

09:40 - 10:00

(4E-03) Optical and structural insights of Tb^{3+} doped $\text{Na}_2\text{SrMg}(\text{PO}_4)_2$ phosphors for solid state lighting and anticounterfeiting applications

JAYASREE JAYARAMAN¹, RATHINA MALA V², *S Masilla Moses Kennedy¹

¹ SRI SIVASUBRAMANIYA NADAR COLLEGE OF ENGINEERING(India)

² SRI VIDYA COLLEGE OF ENGINEERING AND TECHNOLOGY(India)

Organic molecule/MOF/Complex/OLED *Chair: Gaël Ung*

10:50 - 11:10

(4E-04) Luminescent photochromism in multifunctional metal-organic materials based on uranyl cations

*Jakub J. Zakrzewski^{1,2}, Aleksander Hoffman¹, Junhao Wang³, Dariusz Matoga¹, Hiroko Tokoro³, Shin-ichi Ohkoshi², Szymon Chorazy¹

¹ Faculty of Chemistry, Jagiellonian University(Poland)

² Department of Chemistry, The University of Tokyo(Japan)

³ Institute of Pure and Applied Sciences, University of Tsukuba(Japan)

11:10 - 11:30

(4E-05) Synthesis, Structures, and Luminescent Properties of Divalent Lanthanide Triflates

*David Jan van Gerven¹, Alina Mircov¹, Niko T. Flosbach¹, Mathias S. Wickleder¹

¹ University of Cologne(Germany)

11:30 - 11:50

(4E-06) Temperature-dependent spectroscopic properties of Ln(III)-based chiral complexes

*Silvia Ruggieri¹, Fernando Eduardo Maturi^{2,3}, Albano Neto Carneiro Neto^{2,4}, Cristina Sissa⁵, Francesco Zinna⁶, Lorenzo Di Bari⁶, Andrea Gualandi⁷, Luis Dias Carlos², Fabio Piccinelli¹

¹ University of Verona(Italy)

² University of Aveiro(Portugal)

³ Autonomous University of Madrid(Spain)

⁴ University of Santiago de Compostela(Spain)

⁵ University of Parma(Italy)

⁶ University of Pisa(Italy)

⁷ University of Bologna(Italy)

11:50 - 12:10

(4E-07) Synthesis and Characterization of a Tetrakis Eu(III) Furan-2-Carboxylate Complex with Bright Red Luminescence and Excellent Thermometric Performance

*Raj Kishore Das^{1,2}, S. Maji¹, K. Sundararajan^{1,2}, Satendra Kumar^{1,2}

¹ Indira Gandhi Centre for Atomic Research(India)

² Homi Bhabha National Institute (HBNI)(India)

Organic molecule/MOF/Complex/OLED *Chairs: Yasuchika Hasegawa, Mathias Wickleder*

13:10 - 13:30

(4E-08) Determination of the structural factors responsible for high circularly polarized luminescence metrics

*Gaël Ung¹

¹ University of Connecticut(USA)

13:30 - 13:50

(4E-09) Multifunctionality of polar luminescent Mn(II)-based molecular hybrids for optical sensing and multitasking devices

*Aleksander Hoffman^{1,2}, Jakub J. Zakrzewski^{1,3}, Mikołaj Zychowicz^{1,2}, Jan Rzepiela¹, Sebastian Baś¹, Shin-ichi Ohkoshi³, Fumitaka Kagawa^{4,5}, Szymon Choraży¹

¹ Faculty of Chemistry, Jagiellonian University(Poland)

² Doctoral School of Exact and Natural Sciences, Jagiellonian University(Poland)

³ Department of Chemistry, School of Science, The University of Tokyo(Japan)

⁴ Department of Physics, Tokyo Institute of Technology(Japan)

⁵ RIKEN Center for Emergent Matter Science (CEMS)(Japan)

13:50 - 14:10

(4E-10) Excitation wavelength dependent luminescence of zeolite-like Ln-MOFs with isonicotinic acid

*Nikita Madhukar¹, Shun Fuji¹, Haruki Takiguchi¹, Miki Hasegawa¹

¹ Aoyama Gakuin University(Japan)

14:10 - 14:30

(4E-11) Ionic Liquid Crystals Bearing Polycyanidometallates Towards Functional Luminescent Molecular Hybrids

*Kinga Szczecińska^{1,2}, Aleksander Hoffman^{1,2}, Junhao Wang³, Sebastian Lalik⁴, Monika Marzec⁴, Fumitaka Kagawa⁵, Hiroko Tokoro³, Shin-ichi Ohkoshi⁶, Szymon Choraży¹

¹ Faculty of Chemistry, Jagiellonian Univ., Kraków, 30-387(Poland)

² Doctoral School of Exact and Natural Sciences, Jagiellonian Univ., Kraków, 30-348(Poland)

³ Department of Materials Science, Institute of Pure and Applied Sciences, Univ. of Tsukuba, Tsukuba, 305-8573(Japan)

⁴ Faculty of Physics, Astronomy and Applied Computer Science, Jagiellonian Univ., Kraków, 30-348(Poland)

⁵ RIKEN Center for Emergent Matter Science (CEMS), Wako, 351-0198(Japan)

⁶ Department of Chemistry, School of Science, The Univ. of Tokyo, Tokyo, 113-0033(Japan)

14:30 - 14:50

(4E-12) Tuning Light with Pressure and Heat: DABNA as a Dual Sensor of Extreme Conditions

*Przemysław Woźny¹, Zhao Fang¹, Jan Moszczyński¹, Tamilarasu Ganeshamurthy¹, Szymon Sobczak¹, Sali Jana², Natalia Majewska³, Sebastian Mahlik³, Eli Zysman-Coleman², Marcin Runowski¹

¹ Adam Mickiewicz University(Poland)

² University of St Andrews(UK)

³ University of Gdansk(Poland)

14:50 - 15:10

(4E-13) Beyond the molecular antenna: charge-transfer state driving record-luminescence in Ln(III) complexes via supramolecular energy harvesting

*Lada Puntus^{1,2}

¹ A.V. Topchiev Institute of Petrochemical Synthesis, Russian Academy of Sciences(Russia)

² V.A. Kotelnikov Institute of Radioengineering and Electronics, Russian Academy of Sciences(Russia)

Spectroscopy *Chairs: Natalia Majewska, Shunsuke Murai*

15:30 - 15:50

(4E-14) Two Photons, One Excited Tm²⁺: Upconversion in RbCaBr₃:Tm²⁺

*Moritz Justus Dango¹, Claudia Wickleder¹

¹ University of Siegen(Germany)

15:50 - 16:10

(4E-15) Lanthanide-doped Sesquioxides: An alternative approach to analysis and visualization of Stark splitting energy levels

*Andrei V Racu¹, Daniel Vizman², Michail G Brik^{3,4,5,6}

¹ National Institute of R&D for Electrochemistry and Condensed Matter, Timisoara(Romania)

² West University of Timisoara(Romania)

³ Vinča Institute of Nuclear Sciences, University of Belgrade(Serbia)

⁴ School of Optoelectronic Engineering and CQUPT-BUL Innovation Institute, Chongqing(China)

⁵ Institute of Physics, University of Tartu(Estonia)

⁶ Academy of Romanian Scientists, Bucharest(Romania)

16:10 - 16:30

(4E-16) Correlated inhomogeneous absorption profiles across distinct optical transitions in a rare-earth doped crystal

Flora Segur^{1,2}, *Sacha Welinski¹, Alban Ferrier^{3,4}, Perrine Berger¹, Anne Louchet-Chauvet²

¹ Thales Research & Technology(France)

² Institut Langevin, ESPCI(France)

³ Institut de Recherche de Chimie Parsi(France)

⁴ Sorbonne Université(France)

16:30 - 16:50

(4E-17) Boosting the Photoluminescence Quantum Yield of Deep-Blue Emission in CaYGaO₄:Bi³⁺ via Lithium-Based Flux Additives For Plant Applications

*Abdelrhman Yousif Mohmmmed^{1,2}, Turshatov Andrey¹, Busko Dmitry¹, Rajagopalan Krishnan¹, Elizabeth Coetsee⁴, Richards Bryce Sydney^{1,3}

¹ Institute of Microstructure Technology, Karlsruhe Institute of Technology (KIT), Hermann-von-Helmholtz-Platz 1 76344 Eggenstein-Leopoldshafen, Germany (Germany)

² University of Khartoum, Department of Physics, Faculty of Education, University of Khartoum, P.O. Box 321, Omdurman 11115, Sudan(Sudan)

³ Light Technology Institute, Karlsruhe Institute of Technology, Engesserstrasse 13, 76131 Karlsruhe, Germany(Germany)

⁴ Department of Physics, University of the Free State, Bloemfontein ZA9300, South Africa(South Africa)

16:50 - 17:10

(4E-18) Luminescence of Na_{3.6}Y_{1.8-x}Sc_x(PO₄)₃ solid solutions under synchrotron radiation

*Nataliya Krutyak¹, Vitali Nagirnyi¹, Dmitry Spassky¹

¹ Institute of Physics, University of Tartu(Estonia)

Lecture Hall A

Venue: 3F of ILAS bldg.

Nanomaterial/Upconversion Chairs: Lingdong Sun, Dagmara Stefańska

09:20 - 09:40

(5A-01) Direct laser writing synthesis of semiconductor nanocrystal

Mansour Abdurhman², Adilet Zhakeyev², *Jose Marques-Hueso¹

¹ Universitat De Valencia(Spain)

² Heriot-Watt University(UK)

09:40 - 10:00

(5A-02) Nonlinear optical behavior of colloidal core-shell nanoparticles for sensing and labelling applications.

*Agnieszka Siomra¹, Marcin Nyk¹

¹ Wroclaw University of Science and Technology(Poland)

10:00 - 10:20

(5A-03) Strategies to Luminescence Anti-thermal Quenching

*Ling Huang¹

¹ Zhejiang University(China)

10:40 - 11:00

(5A-04) Nanocrystalline trigonal $\text{TbPO}_4 \cdot n\text{H}_2\text{O}$: a simple compound with remarkably sophisticated optical properties

*Fabio Piccinelli¹, Silvia Ruggieri¹, Emanuele De Rienzo¹, Leonardo Ceccon¹, Marco Bettinelli¹, Francesco Zinna², Lorenzo Arrico², Lorenzo Di Bari²

¹ Luminescent Materials Laboratory, University of Verona(Italy)

² Department of Chemistry and Industrial Chemistry, University of Pisa(Italy)

11:00 - 11:20

(5A-05) A Strategy to enhance photon upconversion emission in lanthanide metal-organic frameworks

*Min Ying Tsang¹, Tapendu Samanta¹, Aleksandra Gerszendorf¹, Szymon J. Zelewski², Jan Zareba²

¹ Lukaszewicz PORT(Poland)

² Wroclaw University of Science and Technology(Poland)

11:20 - 11:40

(5A-06) Luminescence enhancement in monolayer MoS_2 driven by a ferroelectric substrate phase transition

*David Hernández Pinilla^{1,2}, Dennis P. Cachago¹, Yi An Xia¹, Guillermo López Polín^{1,3}, Maria de la O Ramírez^{1,2,3}, Luisa E. Bausá^{1,2,3}

¹ Universidad Autónoma de Madrid(Spain)

² Instituto Nicolás Cabrera(Spain)

³ Condensed Matter Physics Center (IFIMAC)(Spain)

11:40 - 12:00

(5A-07) Taming Mn^{5+} : From Synthetic Constraints to Optical Response in Nanoparticles

*Maxime Delaey¹, Azin Khamesan^{2,3}, Quan Zhang⁴, Daniela Maggioni², Daniela Meroni², Dirk Poelman¹

¹ Ghent university(Belgium)

² Università degli Studi di Milano(Italy)

³ University of Ottawa(Canada)

⁴ Anhui Jianzhu University(China)

Lecture Hall B

Venue: 3F of ILAS bldg.

Scintillator *Chair: Antonio Benayas*

09:20 - 09:40

(5B-01) Microstructure and luminescence of $(\text{Mg}_{1-x}\text{Zn}_x)\text{Al}_2\text{O}_4$ solid state solutions

*Luiz G. Jacobsohn¹, Robin L. Conner¹

¹ Clemson University(USA)

09:40 - 10:00

(5B-02) Crucible-Free Melt Growth of Ultrahigh Melting Point Y_2O_3 Crystal by the OCCC Method

*Kei Kamada^{1,2}, Taketoshi Tomida², Masanori Kitahara², Masao Yoshino^{1,2}, Rikito Murakami^{1,2}, Vladimir Kochurikhin², Yasuhiro Shoji², Koichi Kakimoto¹, Akira Yoshikawa^{1,2}

¹ Tohoku Univ.(Japan)

² C&A Corporation(Japan)

10:00 - 10:20

(5B-03) Visualizing non-radiative electron annihilation processes following the ionization of Ce^{3+} ions in $\text{Lu}_3\text{Al}_{5-x}\text{Ga}_x\text{O}_{12}:\text{Ce}$ ($x=3-5$) crystals by a mid-infrared free-electron laser

*Mamoru Kitaura¹, Heishun Zen², Shinta Watanabe³, Kei Kamada⁴, Kyoung Jin Kim⁵, Akira Yoshikawa⁵, Jumpei Ueda⁶

¹ Yamagata University(Japan)

² Kyoto University, IAE(Japan)

³ AGC(Japan)

⁴ Tohoku University, NICHe(Japan)

⁵ Tohoku University, IMR(Japan)

⁶ JAIST(Japan)

10:40 - 11:00

(5B-04) Observation of crystallization in Eu-doped glass phosphor by in-situ X-ray total scattering and photoluminescence measurements

*Seiya Shimono¹, Yasushi Nanai²

¹ Japan Synchrotron Radiation Research Institute (JASRI)(Japan)

² National Defense Academy(Japan)

Thermometer *Chair: Kei Kamada*

11:00 - 11:20

(5B-05) Luminescence thermometry today: latest experiments within a nanoparticle plus LUMETH metrology project

*Antonio Benayas¹

¹ nanoBIG - Universidad Autónoma de Madrid (Spain)

11:20 - 11:40

(5B-06) Multimodal Luminescent and Raman Nanothermometry in Acoustofluidic Microdevices

Leonardo C. E. de Barros¹, Harrison D. A. Santos^{1,2}, Wagner F. Silva¹, Andressa Novatski³, Flávio O. S. D'Amato^{1,2}, Glauber T. Silva^{2,4}, *Carlos Jacinto da Silva^{1,4}

¹ Nano-Photonics and Imaging Group, Institute of Physics, Universidade Federal de Alagoas, Maceió-AL(Brazil)

² Group of Physical Acoustics & Microfluidics, Institute of Physics, Universidade Federal de Alagoas, Maceió-AL(Brazil)

³ Departamento de Física, Universidade Estadual de Ponta Grossa, Ponta Grossa-PR(Brazil)

⁴ Progrtama de Pós-Graduação em Materiais, Centro de Tecnologia, Universidade Federal de Alagoas, Maceió-AL(Brazil)

11:40 - 12:00

(5B-07) Optical Thermometry Study of Er^{3+} co-doped $\text{SrMoO}_4:\text{Dy}^{3+}$ phosphor

*Praveen Chandra Pandey¹

¹ Indian Institute of Technology (BHU) Varanasi (India)

Room C

Venue: Center bldg. South-wing Rm11

Transparent material Chairs: Jianrong Qiu, Marcelo Nalin

09:20 - 09:40

(5C-01) When Upconversion Meets Persistent Luminescence: A Glass Composite Story

*Leonnam Gotardo Merizio¹, Luidgi Giordano¹, Everton Bonturim², Lucas Carvalho Veloso Rodrigues¹, Danilo Manzani¹

¹ University of São Paulo(Brazil)

² Mackenzie Presbyterian University(Brazil)

09:40 - 10:00

(5C-02) Exploring the potential of Nd³⁺-doped perovskite-type BaLaLiTeO₆ and BaLaNaTeO₆ for transparent ceramics

*Kacper Albin Prokop^{1,2}, Milosz Siczek¹, Elzbieta Tomaszewicz³, Yannick Gouyot⁴, Sandrine Cottrino⁵, Vincent Garnier⁵, Gilbert Fantozzi⁵, Martyna Zieciak¹, Malgorzata Guzik^{1,2}

¹ University of Wrocław, Faculty of Chemistry, 50-383 Wrocław, Poland(Poland)

² Łukasiewicz Research Network – PORT Polish Center for Technology Development, 54-066 Wrocław, Poland(Poland)

³ West Pomeranian University of Technology, Department of Inorganic and Analytical Chemistry, 71-065 Szczecin, Poland(Poland)

⁴ Univ Lyon, Institute Light Matter (iLM), CNRS-Claude Bernard/Lyon1University, 69100 Villeurbanne, France(Poland)

⁵ Institut National des Sciences Appliquées INSA Lyon, Université Claude Bernard Lyon 1, CNRS, MATEIS, 69621 Villeurbanne, France(Poland)

10:00 - 10:20

(5C-03) Development of Rare-Earth-Doped Luminescent Thin Films Grown by Magnetron Sputtering

*Everton Bonturim¹, Leonnam Gotardo Merizio^{3,2}, João Pedro de Freitas Ribeiro Rodrigues¹, Bianca Sanches Toledo¹, Enzo Prevideli de Andrade¹, Ruan Victor Bastos Durães¹, Karoline Tiemi Sakai¹, Lucas Carvalho Veloso Rodrigues³

¹ Mackenzie Presbyterian Univ.(Brazil)

² University of São Paulo (IQSC/USP)(Brazil)

³ University of São Paulo (IQ/USP)(Brazil)

10:40 - 11:00

(5C-04) Optical characterization of highly rare-earth ions doped glasses prepared by levitation technique

*Koki Tanabe¹, Atsunobu Masuno¹, Nobuaki Terakado¹, Yuta Shuseki¹, Katsuhisa Tanaka¹

¹ Graduate School of Engineering, Kyoto University(Japan)

11:00 - 11:20

(5C-05) Microstructured lanthanide-doped polymer films for improved photonic management in luminescent solar concentrators

*Sandra FH Correia¹, Francisca V Silva², Lianshe Fu¹, Vitor Sencadas², Rute AS Ferreira¹

¹ Department of Physics and CICECO - Aveiro Institute of Materials, University of Aveiro(Portugal)

² Department of Materials and Ceramic Engineering and CICECO - Aveiro Institute of Materials, University of Aveiro(Portugal)

11:20 - 11:40

(5C-06) Strategies for Phosphor-in-glass Refractive Index Matching for Fully Transparent Luminescent Materials

Natalia Miniajluk-Gawer¹, Radosław Lisiecki¹, Karolina Szkaradek¹, Nirajan Ojha², Khaldoun Nasser², Laetitia Petit²,

*Bartosz Bondzior¹

¹ Institute of Low Temperature and Structure Research, Polish Academy of Sciences(Poland)

² Photonics Laboratory, Tampere University(Finland)

Room D

Venue: Center bldg. West-wing

LED phosphor *Chairs: Yuuki Kitagawa, Jian Xu*

09:20 - 09:40

(5D-01) Preparation of Cu(I)-Based Hybrid Scintillation Thin Films and Their Application in Smart X-ray Imaging

*Shuai Zhang¹

¹ South China University of Technology(China)

09:40 - 10:00

(5D-02) Enhanced luminescence in $\text{Mg}_2\text{Lu}(\text{V,P})\text{O}_6:\text{Eu}^{3+}$ phosphor by P^{5+} -doping and its application in optical thermometry

*Abinaya Mayavan¹

¹ Zhejiang Normal University, China (China)

10:00 - 10:20

(5D-03) Luminescent properties of $\text{Ba}_2\text{Al}_2\text{SiO}_7:\text{Ce}^{3+}$ phosphor: Synthesized by different routes

*Tripti Richhariya¹, Nameeta Brahme¹

¹ SoS in Physics and Astrophysics, Pt. Ravishankar Shukla University(India)

Dosimeter *Chairs: Jian Xu, Yuuki Kitagawa*

10:20 - 10:40

(5D-04) Ti-Doped Zirconia Synthesized via Diverse Routes : Comparative Study of the Theoretical, Structural and Luminescent Properties for Multiple Applications

*Kanchan Tiwari¹, Nameeta Brahme¹, D.P. Bisen¹, Akesh Kumar¹

¹ Pandit Ravishankar Shukla University(India)

10:40 - 11:00

(5D-05) Electronic Structure, Judd-Ofelt Dynamics, and Stimulated Luminescence in Dy^{3+} -Doped $\text{BaZrSi}_3\text{O}_9$ Phosphors

*Akesh Kumar¹, D.P. Bisen¹, Kanchan Tiwari¹, Chitrakant Belodhiya¹, J. Aman Kunjam¹, Nameeta Brahme¹

¹ SoS in Physics and Astrophysics, Pandit Ravishankar Shukla University(India)

11:00 - 11:20

(5D-06) Enhancing OSL Intensity in Synthetic Quartz through Optimized Thermal Treatments

*Yogesh Dattatray Kale¹, Dr Trilok B Akhani¹, Dr Yashesh H Gandhi²

¹ Department of Physics, Parul Institute of Applied Sciences , Parul University, Vadodara, Gujarat (India)

² Applied Physics Department, Faculty of Technology and Engineering, The M S University of Baroda, Vadodara, Gujarat (India)

11:40 - 12:00

(5D-07) Sensitivity Analysis of OSL Components in Synthetic Quartz and Their Correlation with High-Temperature TL Glow Peaks

*Trilokkumar Bharatkumar Akhani¹, YOGESH D KALE¹, YASHESH H GANDHI²

¹ Department of Physics, Parul Institute of Applied Sciences, Parul University, Vadodara, Gujarat, 391760, India (India)

² Applied Physics Department, The M S University of Baroda, Gujarat, 39001, India(India)

Room E

Venue: Base of ILAS bldg.

Bioimaging *Chairs: Andrea Pickel, Niko Hildebrandt*

10:40 - 11:00

(5E-01) From Surface Engineering to Bioimaging: Silica-Based Lanthanide Stain with Tunable Photophysics

*Alessandra Garbosa Mutti¹, João Antonio Oliveira Santos², Felipe Silva Manrique Canisares³, Ana Maria Pires^{1,4}, Sergio Antonio Marques Lima^{1,4}

¹ FCT-UNESP(Brazil)

² IQ-UNESP(Brazil)

³ IQ-USP(Brazil)

⁴ IBILCE-UNESP(Brazil)

11:00 - 11:20

(5E-02) Achieving thermal tomography with lanthanide doped nanoparticles

*Natalia Ochoa¹, Chenxi Peng³, Guanying Chen², Dirk H. Ortgies¹, Xiaowang Liu³, Daniel Jaque¹

¹ UNIVERSIDAD AUTÓNOMA DE MADRID(Spain)

² Harbin Institute of Technology(China)

³ Northwestern Polytechnical University Xi'an(China)

11:20 - 11:40

(5E-03) Responsive Probes for Background-Free Luminescence Biosensing and Imaging

*Run Zhang^{1,2}

¹ Australian Institute for Bioengineering and Nanotechnology, The University of Queensland(Australia)

² Centre for Nutrition and Food Sciences, Queensland Alliance for Agriculture and Food Innovation (CNAFS, QAAFI), The University of Queensland(Australia)

11:40 - 12:00

(5E-04) Seeing the invisible: luminescent nanoprobe for tracking nano- and microplastics across biological systems

*Tomasz Grzyb¹, Joanna Musiał¹, Klaudia Krysiak-Smulek¹, Dominika Przybylska¹, Adrian Drozdowski¹, Zbigniew Hnatejko¹, Anna Ekner-Grzyb², Cátia Venâncio³, Isabel Lopes³, Wojciech Smulek⁴, Ewa Kaczorek⁴, František Štětina⁵, Hans H. Gorris⁵, Zdeněk Farka⁵

¹ Department of Rare Earths, Faculty of Chemistry, Adam Mickiewicz University, Poznań(Poland)

² Department of Cell Biology, Faculty of Biology, Adam Mickiewicz University, Poznań(Poland)

³ Centre for Environmental and Marine Studies (CESAM) & Department of Biology, University of Aveiro(Portugal)

⁴ Institute of Chemical Technology and Engineering, Faculty of Chemical Technology, Poznan University of Technology(Poland)

⁵ Department of Biochemistry, Faculty of Science, Masaryk University(Czech Republic)

Saturday Afternoon Program

Venue: Lecture Hall A & B

13:00 - 13:40	George Blasse Award Lecture 1
13:40 - 14:20	George Blasse Award Lecture 2
14:20 - 14:40	Coffee Break
14:40 - 15:40	ICL Prize Lecture
15:50 - 16:20	Closing Ceremony