

## **6th International Conference on Excited States of Transitions Elements**

**Hotel Polanica Resort & Spa, Polanica-Zdrój, Poland**

**21 - 26 August 2016**

**Sunday, August 21**

### **BUS TRANSPORTATION FROM WROCLAW:**

**BUS1 14:00** Departure from Wroclaw (Building of Department of Chemistry, University of Wroclaw, ul. Fryderyka Joliot-Curie 15, 50-383 Wrocław) → arrival in Hotel Polanica Resort & Spa, Polanica-Zdrój at ~16:00

**BUS2 15:00** Departure from Wroclaw Airport → arrival in Hotel Polanica Resort & Spa, Polanica-Zdrój at ~17:00

**BUS3 17:00** Departure from Wroclaw (Building of Department of Chemistry, University of Wroclaw, ul. Fryderyka Joliot-Curie 15, 50-383 Wrocław) arrival in Wroclaw Airport at 17:30 → departure from Wroclaw Airport at 18:00 arrival in Hotel Polanica Resort & Spa, Polanica-Zdrój at ~20:00

# 6<sup>th</sup> International Conference on Excited States of Transitions Elements

(ESTE`2016)

21-26 August, 2016, Hotel Polanica Resort & Spa, Polanica-Zdrój, Poland

## Sunday, August 21

Sunday, August 21	16:00-19:00	REGISTRATION at Hotel Polanica Resort & Spa, Polanica-Zdrój
	19:00-22:00	<b>DINNER (buffet)</b>

## Monday, August 22

Monday, August 22	7:00-9:00	<b>BREAKFAST (buffet)</b>	LUMINET
	8:00-8:50	REGISTRATION	
	8:50-9:00	Opening ceremony	
	Session Chairmen: <b>W. Strek and E. Zych</b>		
	9:00-9:40	Plenary talk PL-1 <b>John Capobianco</b> , DRUG RELEASE: PHOTOSWITCHING, PHOTOCLEAVABLE	
	9:40-10:20	Plenary talk PL-2 <b>Luis Carlos</b> , UPCONVERSION NANOTHERMOMETRY	
	10:20-10:40	<b>COFFEE BREAK</b>	
	Session Chairman: <b>A. Mudring</b>		
	10:40-11:10	Invited talk I-1 <b>Antonio Benayas</b> , RE <sup>3+</sup> -DOPED FLUORESCENT NANOPARTICLES: PLAYING FROM BOTH SIDES OF THE VIS/NIR FENCE	
	11:10-11:40	Invited talk I-2 <b>Wong Ka-Leung</b> , LANTHANIDE LUMINESCENCE FOR TUMORIGENESIS STUDIES	
	11:40-12:10	Invited talk I-3 <b>Joan J. Carvajal</b> , LUMINESCENCE THERMOMETRY, BIOIMAGING AND PHOTOTHERMAL CONVERSION IN THE BIOLOGICAL SPECTRAL WINDOWS	
	12:10-12:40	Invited talk I-4 <b>Iwona Płodzich-Hennig</b> , HOW TO PATENT A LUMINOPHORE - FIRST STEP FROM IDEA TO COMMERCIALIZATION	
	12:40-13:00	<b>COFFEE BREAK</b>	
	Session Chairman: <b>P. Smet</b>		
13:00-13:30	Invited talk I-5 <b>Anja V. Mudring</b> , LANTHANIDE-BASED IONIC LIQUID - NEW SOFT LUMINESCENT MATERIALS		
13:30-14:00	Invited talk I-6 <b>Marco Bettinelli</b> , NEW LUMINESCENT MATERIALS FOR PHOSPHOR-CONVERTED LIGHT EMITTING DIODES		

Monday, August 22	14:00-14:20	<p style="text-align: center;">Oral presentation O-1</p> <p style="text-align: center;"><b>Witold Ryba-Romanowski</b>, SPECTROSCOPIC AND THERMAL FEATURES RELEVANT TO INFRARED LASER OPERATION IN RARE EARTH-DOPED <math>Gd_3(Al,Ga)_5O_{12}</math> CRYSTALS</p>	LUMINET
	14:20-14:40	<p style="text-align: center;">Oral presentation O-2</p> <p style="text-align: center;"><b>Irene Carrasco Ruiz</b>, STRUCTURAL EFFECTS AND <math>5d \rightarrow 4f</math> EMISSION TRANSITION SHIFTS INDUCED BY Y CO-DOPING IN Pr DOPED <math>K_3Lu_{1-x}Y_x(PO_4)_2</math></p>	
	<b>14:40-16:00</b>	<b>LUNCH (buffet)</b>	
	Session Chairman: <b>O. Malta</b>		
	16:00-16:30	<p style="text-align: center;">Invited talk I-7</p> <p style="text-align: center;"><b>Mikhail Brik</b>, FIRST-PRINCIPLES CALCULATIONS OF PHYSICAL PROPERTIES OF PURE AND DOPED CRYSTALS</p>	
	16:30-17:00	<p style="text-align: center;">Invited talk I-8</p> <p style="text-align: center;"><b>Karl Krämer</b>, RESONANCE IN UPCONVERSION EXCITATION</p>	
	17:00-17:30	<p style="text-align: center;">Invited talk I-9</p> <p style="text-align: center;"><b>Mathijs De Jong</b>, DIRECT OBSERVATION OF PHOTON PAIR EMISSION PROVES QUANTUM CUTTING IN <math>Pr^{3+}</math></p>	
	17:30-17:50	<p style="text-align: center;">Oral presentation O-3</p> <p style="text-align: center;"><b>Pedro Villanueva-Delgado</b>, ENERGY TRANSFER AND UPCONVERSION IN <math>Tm^{3+}</math>-DOPED <math>\beta-NaYF_4</math>: COMPARISON BETWEEN MODELS AND THEORY</p>	
	<b>17:50-18:10</b>	<b>COFFEE BREAK</b>	
	Session Chairman: <b>M. Nikl</b>		
	18:10-18:40	<p style="text-align: center;">Invited talk I-10</p> <p style="text-align: center;"><b>Marco Kirm</b>, CHALLENGES IN LUMINESCENCE STUDIES OF OXIDE NANOCRYSTALS, CERAMICS AND THIN FILMS</p>	
	18:40-19:00	<p style="text-align: center;">Oral presentation O-4</p> <p style="text-align: center;"><b>Karol Bartosiewicz</b>, THE TEMPERATURE DEPENDENCE STUDIES OF RARE-EARTH (<math>Dy^{3+}</math>, <math>Sm^{3+}</math>, <math>Eu^{3+}</math> AND <math>Tb^{3+}</math>) ACTIVATED <math>Gd_3Ga_3Al_2O_{12}</math> GARNET SINGLE CRYSTALS</p>	
	19:00-19:20	<p style="text-align: center;">Oral presentation O-5</p> <p style="text-align: center;"><b>Stephane Petoud</b>, LUMINESCENT LANTHANIDE-BASED MOFs FOR OPTICAL IMAGING</p>	
	19:20-19:40	<p style="text-align: center;">Oral presentation O-6</p> <p style="text-align: center;"><b>Karolina Fińczyk</b>, <math>5d-4f</math> LUMINESCENCE OF <math>Ce^{3+}</math>, <math>Pr^{3+}</math> AND <math>Eu^{2+}</math> IN <math>Sr_2GeO_4</math></p>	
	19:40-20:00	<p style="text-align: center;">Oral presentation O-7</p> <p style="text-align: center;"><b>Justyna Zeler</b>, PHOTOLUMINESCENCE OF <math>LuPO_4:Eu</math> THERMOLUMINESCENT CERAMICS</p>	
	<b>20:00-22:00</b>	<b>DINNER (buffet)</b>	
21:00-21:55	<b>LUMINET Consortium meeting - only LUMINET Partners</b>		

Tuesday, August 23

Tuesday, August 23	7:00-9:30	<b>BREAKFAST (buffet)</b>
		Session Chairman: <b>J.J. Carvajal</b>
	9:00-9:30	Invited talk I-11 <b>Murat Erdem</b> , PHYSICAL PROPERTIES ON THE LUMINESCENCE OF SEVERAL RARE EARTH DOPED YTTRIUM SILICATE NANOMATERIALS <b>cancelled</b>
	9:30-10:00	Invited talk I-12 <b>Hermi Brito</b> , OPTICAL AND MAGNETIC NANOCOMPOSITES CONTAINING Fe <sub>3</sub> O <sub>4</sub> @SiO <sub>2</sub> GRAFTED WITH Eu <sup>3+</sup> AND Tb <sup>3+</sup> COMPLEXES
	10:00-10:30	Invited talk I-13 <b>Nurdogan Can</b> , PREPARATION AND CHARACTERIZATION OF YTTRIUM BASED LUMINESCENCE PHOSPHORS
	10:30-10:50	Oral presentation O-8 <b>Maria Claudia Felinto</b> , PREPARATION OF LUMINESCENT RE <sub>2-x</sub> Eu <sub>x</sub> (MoO <sub>4</sub> ) <sub>3</sub> (RE=Y AND La) AMINO-FUNCTIONALIZED SILICA NANOPARTICLES FOR BIOLOGICAL APPLICATIONS
	10:50-11:10	<b>COFFEE BREAK</b>
		Session Chairman: <b>M. Bettinelli</b>
	11:10-11:40	Invited talk I-14 <b>Miroslav Dramicanin</b> , HOW TO DO EVEN MORE THINGS WITH RARE-EARTH DOPED GdVO <sub>4</sub>
	11:40-12:10	Invited talk I-15 <b>Mingying Peng</b> , Mn <sup>4+</sup> DOPED ALUMINATE PHOSPHORS FOR WARM WHITE LEDs
	12:10-12:40	Invited talk I-16 <b>Marek Grinberg</b> , THE NEW ACT OF OLD GAME WITH 3d <sup>3</sup> SYSTEM - RED PHOSPHORS BASED ON Mn <sup>4+</sup> DOPED LATTICES
	12:40-13:10	Invited talk I-17 <b>Andrzej Suchocki</b> , HIGH PRESSURE LUMINESCENCE AND RAMAN STUDIES OF Eu <sup>2+</sup> AND Mn <sup>2+</sup> DOPED NaScSi <sub>2</sub> O <sub>6</sub> CLINOPYROXENES
	13:10-13:40	Invited talk I-18 <b>Jing Wang</b> , HF-FREE HYDROTHERMAL ROUTE FOR SYNTHESIS OF Mn <sup>4+</sup> ION ACTIVATED NARROW-BAND RED EMITTING FLUORIDE PHOSPHOR FOR WARM WHITE LIGHT-EMITTING DIODES
	13:40-14:40	<b>LUNCH (buffet)</b>
		Session Chairman: <b>A. Suchocki</b>
	14:40-15:10	Invited talk I-19 <b>Pablo Molina</b> , PLASMON ASSISTED Nd <sup>3+</sup> -BASED SOLID-STATE NANOLASER

<b>Tuesday, August 23</b>	15:10-15:40	Invited talk I-20 <b>Alessandro Chiasera</b> , GLASSES AND TRANSPARENT GLASS-CERAMICS FOR PHOTONICS
	15:40-16:10	Invited talk I-21 <b>Hendrik C. Swart</b> , UPCONVERSION BEHAVIOUR OF Ho <sup>3+</sup> -Yb <sup>3+</sup> CODOPED YTTRIUM OXIDE FILMS AND DEFECT EMISSION OF ZnO FILMS PREPARED BY PULSED LASER DEPOSITION
	<b>16:10-16:30</b>	<b>COFFEE BREAK</b>
		Session Chairman: <b>M. Peng</b>
	16:30-17:00	Invited talk I-22 <b>Jorma Hölsä</b> , THE ROLE OF DEFECTS AND (VALENCE) IMPURITIES IN THE CREATION AND ANNIHILATION OF (PERSISTENT) LUMINESCENCE
	17:00-17:30	Invited talk I-23 <b>Philippe Smet</b> , PERSISTENT PHOSPHORS BEYOND THE AFTERGLOW: OPTICAL AND MECHANICAL DETRAPPING
	17:30-18:00	Invited talk I-24 <b>Jumpei Ueda</b> , TRAP DEPTH ENGINEERING IN Y <sub>3</sub> Al <sub>2</sub> Ga <sub>3</sub> O <sub>12</sub> :Ce <sup>3+</sup> -BASED PERSISTENT PHOSPHORS
	18:00-18:20	Oral presentation O-9 <b>Jose Carvalho</b> , INTERPLAY BETWEEN Ti <sup>3+</sup> AND Ti <sup>IV</sup> ON THE PERSISTENT LUMINESCENCE OF Ti DOPED ZrO <sub>2</sub> MATERIALS
	18:20-18:40	Oral presentation O-10 <b>Yiwen Zhu</b> , HYDROTHERMAL SYNTHESIS, MORPHOLOGY AND PHOTOLUMINESCENT PROPERTIES OF AN Mn <sup>4+</sup> -DOPED NOVEL RED FLUORIDE PHOSPHOR ELPASOLITE K <sub>2</sub> LiAlF <sub>6</sub>
	18:40-20:00	<b>LUMINET – ESTE'2016 Joint Poster Session</b>
<b>20:00-22:00</b>	<b>DINNER (barbecue)</b>	

**Wednesday, August 24**

<b>Wednesday, August 24</b>	<b>7:00-9:30</b>	<b>BREAKFAST (buffet)</b>
	10:00-18:00	CONFERENCE EXCURSION (LUNCH on site) Departure at 10:00 a.m. from Hotel Polanica Resort & Spa
	<b>20:00</b>	<b>BANQUET</b>

Thursday, August 25

Thursday, August 25	7:00-9:00	<b>BREAKFAST (buffet)</b>
		Session Chairman: <b>G. Boulon</b>
	9:00-9:40	Plenary talk PL-3 <b>Akira Yoshikawa</b> , DEVELOPMENT OF NOVEL SCINTILLATOR CRYSTALS AND THEIR CRYSTAL GROWTH TECHNOLOGIES
	9:40-10:10	Invited talk I-25 <b>Aleksander A. Kaminskii</b> , NEW EVENTS IN THE DIAMOND PHOTONICS
	10:10-10:40	Invited talk I-26 <b>Andrzej Wojtowicz</b> , SPECTROSCOPIC STUDIES OF Pr <sup>3+</sup> ION AS A RECOMBINATION CENTER IN Pr-ACTIVATED Lu <sub>3</sub> Al <sub>5</sub> O <sub>12</sub> SCINTILLATOR MONOCRYSTALS
	10:40-11:10	Invited talk I-27 <b>Renata Reisfeld</b> , ENHANCEMENT OF FLUORESCENCE OF LANTHANIDES IN SOL-GEL GLASSES AND POLYMERS BY SURFACE PLASMONS OF SILVER, GOLD AND COPPER NANOPARTICLES
	11:10-11:30	Oral presentation O-11 <b>Jarosław Kaszewski</b> , Eu <sup>3+</sup> LUMINESCENCE IN MONOCLINIC, TETRAGONAL AND CUBIC PHASES OF NANOCRYSTALLINE YTTRIUM STABILIZED ZrO <sub>2</sub>
	11:30-11:50	Oral presentation O-12 <b>Jonas J. Joos</b> , ELECTRONIC STRUCTURE AND APPLICATIONS OF CaZnOS:Mn PHOSPHORS
	11:50-12:10	Oral presentation O-13 <b>Aleksander Zięcina</b> , BLUE UP-CONVERSION OF SrTiO <sub>3</sub> CO-DOPED WITH Tm <sup>3+</sup> AND Yb <sup>3+</sup>
	12:10-12:30	<b>COFFEE BREAK</b>
		Session Chairman: <b>M. Popova</b>
	12:30-13:00	Invited talk I-28 <b>Oscar Malta</b> , THE INFLUENCE OF SILVER NANOPARTICLES ON THE f-f LUMINESCENCE OF THE EuEDTA COMPLEX IN THE POLYVINYLPYRROLIDONE POLYMER: MODELLING ABNORMAL LUMINESCENCE ENHANCEMENT FACTORS
	13:00-13:30	Invited talk I-29 <b>Konstantin Pukhov</b> , THE RADIATIVE DECAYS OF EXCITED STATES OF TRANSITIONS ELEMENTS LOCATED INSIDE AND NEAR NANOPARTICLES
	13:30-14:00	Invited talk I-30 <b>Philippe Boutinaud</b> , THE ENVIRONMENTAL FACTOR MODEL: A TOOL FOR THE DESIGN OF Eu <sup>2+</sup> -DOPED MONOPHOSPHATE PHOSPHORS?
14:00-15:00	<b>LUNCH (buffet)</b>	

Thursday, August 25		<b>Session Chairman: K.L. Wong</b>
	15:00-15:30	Invited talk I-31 <b>Ulrich Kynast, RARE EARTH POLYMERATES</b>
	15:30-16:00	Invited talk I-32 <b>Valentina Utochnikova, LANTHANIDE AROMATIC CARBOXYLATES FOR BIOVISUALIZATION AND OLEDs</b>
	16:00-16:30	Invited talk I-33 <b>Marek Pietraszkiewicz, LANTHANIDE TETRAPHENYLIMIDODIPHOSPHINATES AS POTENTIAL MATERIALS FOR ADVANCED PHOTOLUMINESCENT DIAGNOSTICS</b>
	16:30-16:50	Oral presentation O-14 <b>Marina Lezhnina, ENTERING THE AQUEOUS PHASE WITH HYDROPHOBIC RARE EARTH COMPLEXES</b>
	16:50-17:10	Oral presentation O-15 <b>Niall O'Toole, RED PHOSPHORESCENCE IN TETRANUCLEAR MANGANESE CLUSTERS INVOLVING THIALCALIXARENE TYPE LIGANDS</b>
	17:10-17:30	Oral presentation O-16 <b>Liana K. O. Nakamura, A FASTER WAY TO OBTAIN THE LiAl<sub>5</sub>O<sub>8</sub> ORDERED SPINEL</b>
	<b>17:30-17:50</b>	<b>COFFEE BREAK</b>
		<b>Session Chairman: U. Kynast</b>
	17:50-18:20	Invited talk I-34 <b>Jiang Li, INVESTIGATION OF PLANAR WAVEGUIDE YAG/RE:YAG/YAG LASER CERAMICS PREPARED BY NON-AQUEOUS TAPE CASTING</b>
	18:20-18:40	<b>Oral presentation</b> <b>O-17</b> <b>Anna Łukowiak, NANOCRYSTALLINE LANTHANIDE TETRAPHOSPHATES</b>
	18:40-19:00	Oral presentation O-18 <b>Jakka Suresh Kumar, OPTICAL PROPERTIES AND TEMPERATURE DEPENDENT UPCONVERSION OF BBT:Nd GLASSES</b>
	19:00-19:20	Oral presentation O-19 <b>Krishnapuram Pavani, EXCITATION VARIED PHOTOLUMINESCENCE AND EFFECT OF TEMPERATURE IN BiGdWO<sub>6</sub>:Eu<sup>3+</sup> PHOSPHORS</b>
	19:20-19:40	Oral presentation O-20 <b>Vovk Oleh, DISTRIBUTION OF Cr INTO INTERMEDIATE PHASES UNDER SYNTHESIS OF Cr,Ca:YAG BY SOLID STATE REACTIONS</b>
	19:40-20:00	Oral presentation O-21 <b>Karina Grzeszkiewicz, DETERMINATION OF THE DOWNCONVERSION EFFICIENCY: THE CASE OF Y<sub>2</sub>Si<sub>2</sub>O<sub>7</sub> CO-DOPED WITH LANTHANIDE IONS</b>
<b>20:00-22:00</b>	<b>DINNER (buffet)</b>	

Friday, August 26

Friday, August 26	7:00-9:00	<b>BREAKFAST (buffet)</b>
		Session Chairman: <b>J. Hölsä</b>
	9:00-9:30	Invited talk I-35 <b>Marina Popova</b> , COUPLED ELECTRON-PHONON MODES IN MULTIFERROIC RARE-EARTH IRON BORATES
	9:30-10:00	Invited talk I-36 <b>Stefan Lis</b> , CHOSEN LANTHANIDE DOPED INORGANIC NANOLUMINOPHORES AND THEIR FUNCTIONALIZED HYBRIDS
	10:00-10:30	Invited talk I-37 <b>Janina Legendziewicz</b> , THEORETICAL STUDIES AND PHOTOPHYSICAL BEHAVIOR OF Yb(III) MONO-PHTHALOCYANINES IN DIFFERENT MEDIA
	10:30-10:50	Oral presentation O-22 <b>Iorkyaa Ahemen</b> , EFFECT OF $\text{Eu}^{3+}$ ION CONCENTRATION ON PHASE TRANSITION, SITE SYMMETRY AND QUANTUM EFFICIENCY OF $\text{LiBaZrO}_3$ (LBZ) NANOCRYSTALS
	10:50-11:10	<b>COFFEE BREAK</b>
		Session Chairman: <b>P. Boutinaud</b>
	11:10-11:40	Invited talk I-38 <b>Georges Boulon</b> , THE DISTRIBUTION OF THE $\text{Yb}^{3+}$ LASER DOPANTS IN INORGANIC OPTICAL MATERIALS
	11:40-12:00	Oral presentation O-23 <b>Magdalena Bieza</b> , SEGREGATION OF LANTHANIDE IONS IN NEW MOLYBDATO-TUNGSTATE TRANSLUCENT MICRO-CERAMICS
	12:00-12:20	Oral presentation O-24 <b>Maxim Ivanov</b> , RARE-EARTH DOPED YTTRIA NANOPARTICLES FROM LASER SYNTHESIS AND OPTICAL CERAMICS MADE OF THEM
	12:20-12:40	Oral presentation O-25 <b>Kseniia Orekhova</b> , MEMORY EFFECT IN YAG:Nd NANOCERAMICS
	12:40-13:00	Oral presentation O-26 <b>Przemysław Dereń</b> , THE ROLE OF VACANCIES IN STABILIZATION OF THE $\text{Ln}^{3+}$ GROUND LEVEL IN THE BAND GAP OF THE OXIDE MATRIX
		closing ceremony
	13:00-14:00	<b>LUNCH (buffet)</b>
14:00	Departure to Wrocław (arrival in Wrocław Airport at ~16:00, in city centre at ~17:00)	