

5th International Conference on RARE EARTH MATERIALS REMAT'18

16-18 May, 2018

Venue: Conference Hall of Africarium, Zygmunta Wroblewskiego 51, 51-618 Wrocław, Poland

Wednesday, May 16

	from 8:00	REGISTRATION
	9:45-10:00	Opening
Wednesday, May 16	Session 1a - New technologies and applications of rare-earth	
	10:00-10:30	Invited talk I-1 Ulrich Kynast , THE MICROBIAL THREAT: CAN RARE IONS HELP?
	10:30-11:00	Invited talk I-2 Ka-Leung Wong , BIOCOMPATIBLE LANTHANIDE MATERIALS FOR TUMORS TARGETING, IMAGING AND INHIBITION
	11:00-11:30	Invited talk I-3 Artur Bednarkiewicz , SUPERRESOLUTION IMAGING WITH Ln ³⁺ DOPED NANOCRYSTALS
	11:30-11:40	COFFEE BREAK
	11:40-12:10	Invited talk I-4 Stefan Lis , APPLICATION POTENTIAL OF RARE EARTHS BASED INORGANIC NANOLUMINOPHORS AND THEIR MULTIFUNCTIONAL MATERIALS
	12:10-12:40	Invited talk I-5 Marek Godlewski , RARE EARTH ACTIVATED OXIDES FOR MEDICAL APPLICATIONS
	12:40-13:00	Oral communication O-1 Federico Chiossi , DETECTION OF VERY LOW ENERGY PARTICLES WITH RARE-EARTH DOPED CRYSTALS
	13:00-13:20	Oral communication O-2 Marcin Runowski , NOVEL OPTICAL NANOSENSORS FOR NANOMANOMETRY & NANOTHERMOMETRY - HIGH-PRESSURE AND TEMPERATURE UPCONVERSION LUMINESCENCE OF Ln ³⁺ -DOPED NANOPARTICLES
	13:20-13:40	Oral communication O-3 Szymon Goderski , LUMINESCENT-MAGNETIC CORE-SHELL NANOSTRUCTURES BASED ON HELICAL CHAIN COMPLEXES OF LANTHANIDE(III) IONS

Wednesday, May 16	13:40-14:00	Oral communication O-4 Jakub Cichos , BIOLOGICAL APPLICATIONS AND CYTOTOXICITY OF NaLnF ₄ BASED NANOPARTICLES
	14:00-15:00	LUNCH
	Session 1b - New technologies and applications of rare-earth	
	15:00-15:30	Invited talk I-6 Hongbin Liang , LUMINESCENCE OF Ce ³⁺ , Pr ³⁺ AND Eu ²⁺ IN SILICATES FOR POTENTIAL DISPLAY AND DETECTING APPLICATIONS
	15:30-16:00	Invited talk I-7 Le Quoc Minh , SOME VARIOUS APPROACHES TO GREAT ENHANCING FLUORESCENT INTENSITY OF RARE EARTH NANOPHOSPHORES (RENPs)
	16:00-16:20	Oral communication O-5 Jarosław Kaszewski , MULTIMODAL HfO ₂ :Eu NANOPARTICLES AS CONTRAST IN BIOLOGICAL IMAGING
	16:20-16:40	Oral communication O-6 Bartosz Bondzior , TUNING THE EMISSION OF THE NEW RED SOLID-SOLUTION PHOSPHOR
	16:40-17:00	Oral communication O-7 Adam Olejniczak , SPECTROSCOPIC PROPERTIES OF NON-STOICHIOMETRIC AgInS ₂ QUANTUM DOTS
	17:00-17:10	COFFEE BREAK
	17:10-17:40	Invited talk I-8 Fabio Piccinelli , CHIRAL ANION REPORTERS BASED ON TOTAL AND CIRCULARLY POLARIZED Eu(III) AND Tb(III) LUMINESCENCE
	17:40-18:10	Invited talk I-9 Paula Gawryszewska , SELECTED N-PHOSPHORYLATED AMIDES AS ELECTROMAGNETIC RADIATION CONVERTERS OR LUMINESCENT THERMOMETERS
	18:10-18:40	Invited talk I-10 Dominik Dorosz , OPTICAL AND STRUCTURAL PROPERTIES OF RE DOPED BARIUM-GALLO-GERMANATE GLASSES
	18:40-19:00	Oral communication O-8 Małgorzata Skwierczyńska , CELLULOSE FIBERS MODIFIED WITH LUMINESCENT-MAGNETIC CORE/SHELL TYPE NANOSTRUCTURES DOPED WITH LANTHANIDE(III) IONS
	19:00	DINNER

Thursday, May 17

Session 2 - Optical properties of rare-earth compounds	
10:00-10:30	<p style="text-align: center;">Invited talk I-11</p> <p style="text-align: center;">Oscar L. Malta, REVISITING THE INTERPRETATION OF THE JUDD-OFELT INTENSITY PARAMETERS OF 4f-4f TRANSITIONS</p>
10:30-10:50	<p style="text-align: center;">Oral communication O-9</p> <p style="text-align: center;">Dominika Wawrzyńczyk, L-CYSTEINE FUNCTIONALIZED ZnO NANOPARTICLES: THE ROLE OF SURFACE DEFECTS IN REACTIVE OXYGEN SPECIES GENERATION</p>
10:50-11:10	<p style="text-align: center;">Oral communication O-10</p> <p style="text-align: center;">Paulina Bolek, EXTRINSIC AND INTRINSIC DEFECTS IN Lu₂O₃-BASED STORAGE PHOSPHORS</p>
11:10-11:30	<p style="text-align: center;">Oral communication O-11</p> <p style="text-align: center;">Andrii Shyichuk, OXYGEN VACANCY PAIRS IN CUBIC LUTETIUM OXIDE</p>
11:40-12:00	<p style="text-align: center;">Oral communication O-12</p> <p style="text-align: center;">Przemysław Dereń, THE ROLE OF DEFECTS IN EUROPIUM REDUCTION AND STABILIZATION ON THE SECOND OXIDATION STATE IN AKERMANITE - GEHLENITE</p>
12:00-12:10	COFFEE BREAK
12:10-12:40	<p style="text-align: center;">Invited talk I-12</p> <p style="text-align: center;">Jorma Hölsä, ENERGY TRAPPING SITES IN PERSISTENT PHOSPHORS</p>
12:40-13:10	<p style="text-align: center;">Invited talk I-13</p> <p style="text-align: center;">Jonas Joos, THERMAL QUENCHING OF 5d-4f LUMINESCENCE THE SINGLE BARRIER MODEL REVISITED</p>
13:10-13:40	<p style="text-align: center;">Invited talk I-14</p> <p style="text-align: center;">Chien Mau Dang, SYNTHESIS OF SECURITY INK BASED ON YVO₄:Eu³⁺ AND Y₂O₃:Eu³⁺ NANOCRYSTALS FOR APPLICATION OF PRINTING SECURITY LABELS USING ELECTROHYDRODYNAMIC PRINTING TECHNIQUE</p>
13:40-14:00	<p style="text-align: center;">Oral communication O-13</p> <p style="text-align: center;">Tadeusz Leśniewski, INVESTIGATION OF LUMINESCENCE QUENCHING IN Gd₃(Al,Ga)₅O₁₂:Ce³⁺ GARNETS BY PHOTOCURRENT EXCITATION SPECTROSCOPY</p>
14:00-15:00	LUNCH
15:00-15:30	<p style="text-align: center;">Invited talk I-15</p> <p style="text-align: center;">Marek Grinberg, NON-RADIATIVE PROCESSES AND LUMINESCENCE QUENCHING IN RARE EARTH AND TRANSITION METAL IONS IN SOLIDS</p>

Thursday, May 17

Thursday, May 17	15:30-16:00	Invited talk I-16 Marco Bettinelli , DISORDER-INDUCED BREAKING OF THE LOCAL INVERSION SYMMETRY IN RHOMBOHEDRAL PYROCHLORES $M_2La_3Sb_3O_{14}$ (M = Mg OR Ca): A STRUCTURAL AND SPECTROSCOPIC INVESTIGATION
	16:00-16:30	Invited talk I-17 Marina Popova , PROPERTIES OF NOVEL $Ln_3CrGe_3Be_2O_{14}$ COMPOUNDS FROM LANGASITE FAMILY
	16:30-16:50	Oral communication O-14 Czesław Koepke , THE ROLE OF PHONONS IN THE DEEXCITATION PROCESSES IN GLASSES AND GLASS-CERAMICS DOPED WITH RARE EARTH IONS
	16:50-17:00	COFFEE BREAK
	Session 3 - Special session on Magnetic properties of rare-earth compounds (under patronage of H2020-MSCA-RISE-778070 TransFerr project)	
	17:00-17:30	Invited talk I-18 Dmitry Karpinsky , STRUCTURE AND PROPERTIES OF RARE-EARTH DOPED $BiFeO_3$ CERAMICS NEAR THE MORPHOTROPIC PHASE BOUNDARY
	17:30-18:00	Invited talk I-19 Tomasz Toliński , MAGNETOCALORIC EFFECT IN Gd BASED ALLOYS AND COMPOSITES
	18:00-18:20	Oral communication O-15 Mariusz Hasiak , MICROSTRUCTURE, THERMOMAGNETIC AND MECHANICAL PROPERTIES OF $GdGeSi$ ALLOY DOPPED WITH TERFENOL-D
	18:20-18:40	Oral communication O-16 Bogdan Idzikowski , $HfCo$ -BASED ALLOYS AS PRECURSORS OF HARD MAGNETIC MATERIAL
	18:40-19:00	Oral communication O-17 Wojciech Wegner , RARE EARTH BOROHYDRIDES
	19:00-21:00	Poster session
	21:00	BANQUET

Friday, May 18

Friday, May 18	Session 4 - Rare-earth-doped optical materials	
	10:00-10:30	Invited talk I-20 Georges Boulon , A CHALLENGE FOR LASER MATERIALS: Nd ³⁺ -DOPED Lu ₂ O ₃ CERAMICS/CRYSTALS
	10:30-11:00	Invited talk I-24 Maria Luisa Saladino , CONFINED ENVIRONMENTS FOR THE PREPARATION OF LUMINESCENT NANOPHOSPHORS
	11:00-11:20	Oral communication O-18 Mykhailo Chaika , EFFECT OF Cr CODOPING ON THE PHASE COMPOSITION OF Al ₂ O ₃ +Y ₂ O ₃ POWDERS COMPACT SINTERED AT 1000°C-1400°C : TOWARDS SYNTHESIS OF Cr:YAG GARNET OF IMPROVED PROPERTIES
	11:20-11:40	Oral communication O-19 Sławomir Sujecki , SPATIOTEMPORAL MODELING OF MID-INFRARED PHOTOLUMINESCENCE FROM TERBIUM (III) ION DOPED CHALCOGENIDE-SELENIDE MULTIMODE FIBERS
	11:40-12:00	COFFEE BREAK
	12:00-12:30	Invited talk I-22 Marek Samoć , PROSPECTS FOR NEW MATERIALS FOR NONLINEAR OPTICS: NLO PIGMENTS ?
	12:30-13:00	Invited talk I-23 Maurizio Ferrari , LIGHT MANAGEMENT IN GLASS PHOTONICS: STRUCTURES AND APPLICATIONS
	13:00-13:20	Oral communication O-20 Maxim Ivanov , SIZE-DEPENDENT PHASE TRANSFORMATION AND LUMINESCENCE OF Eu ³⁺ :Y ₂ O ₃ NANOPARTICLES
	13:20-13:40	Oral communication O-21 Adam Watras , LUMINESCENCE TEMPERATURE QUENCHING MECHANISM OF Ca ₉ ZMg(PO ₄) ₇ : 1% Eu ²⁺ (Z = Li, Na, K)
	13:40-14:00	Oral communication O-22 Adam Strzęp , INVESTIGATION OF SPECTROSCOPIC PROPERTIES OF Er DOPED ANITOMONATE-PHOSPHATE GLASSES
	14:00-15:00	LUNCH
	Session 5 - Special session on Refining, recycling and resources of rare-earths (under patronage of ERANet-LAC RECOLA project)	
	15:00-15:30	Invited talk I-25 Oswaldo Serra , RARE EARTHS RECOVERY FROM EXHAUSTED FCC (FLUID CRACKING CATALYSTS)

Friday, May 18	15:30-15:50	Oral communication O-22 Sven Stręk , UTILIZATION OF RARE EARTH FROM MONGOLIAN ORE
	15:50-16:10	Oral communication O-23 Ayla Galaco , ION EXCHANGE AS A NEW TOOL TO OBTAIN NMR DATA FOR PARAMAGNETIC COORDINATION COMPOUNDS AND LOFs (LANTHANOID ORGANIC FRAMEWORKS)
	16:10-16:30	Oral communication O-24 Anna Łukowiak , URBAN MINING: A NEW LANTHANIDES SOURCE FROM E-WASTE
	16:30	CLOSING CEREMONY
	20:00	DINNER