

UPCON2016 CONFERENCE PROGRAMME

Day 1 –23 rd May 2016				The programme of UPCON conference –Monday		Time [h:m]	Session chairs	
S	START	END		EVENT				
	8:00	9:00		Registration		Open		
	9:00	9:15		Welcome : Hans Gorris, Tero Soukka, Artur Bednarkiewicz		0:15		
Materials, materials characterisation & spectroscopy	1	9:15	K1	<i>EFFICIENT TAILORING OF UPCONVERSION ENERGY TRANSFER IN RARE EARTH NANOCRYSTALS BY ENGINEERING LOCAL STRUCTURE AND CORE/SHELL ARCHITECTURE</i> Chun-Hua Yan		0:45	Hans Gorris	
		10:00	I1	<i>SYNTHESIS AND PROPERTIES OF NaREF₄ CORE/SHELL NANOCRYSTALS</i> S. Dühnen, T. Rinkel, A. Naduviledathu Raj, Markus Haase		0:30		
		10:30	I2	<i>ENERGY-CASCADED UPCONVERSION IN LAYERED ONION-LIKE FLUORIDE NANOCRYSTALS</i> Guanying Chen		0:30		
		11:00	11:20		Coffee break (coffee/tea, cookies)		0:20	
	2	11:20	11:40	O1	<i>POWER-DEPENDENT CHARACTERIZATION OF UPCONVERSION NANOPARTICLES IN THE VIS AND IR SPECTRAL REGION: NEW SETUP FOR ABSOLUTE QUANTUM YIELD MEASUREMENTS</i> Christian Würth, M. Kaiser, M. Kraft, V. Muhr, S. Wilhelm, T. Hirsch, Ute Resch-Genger		0:20	Ute Resch Genger
		11:40	12:00	O2	<i>PARTICLE SIZE DEPENDENT ABSOLUTE PHOTOLUMINESCENCE QUANTUM YIELDS AND LIFETIMES OF HEXAGONAL β-NaYF₄: 2% Er³⁺, 20% Yb³⁺ UPCONVERSION NANOPARTICLES IN CYCLOHEXANE AND WATER</i> Marco Kraft, Christian Würth, Martin Kaiser, Verena Muhr, Thomas Hirsch, Ute Resch-Genger		0:20	
		12:00	12:20	O3	<i>Optimization of biofunctional upconversion nanoplatform - role of the shell</i> Hong Zhang		0:20	
		12:20	12:40	O4	<i>THE ROLE OF Yb³⁺ SENSITIZER IN WATER-BASED QUENCHING OF UPCONVERSION PHOTOLUMINESCENCE</i> N. Perälä, Riikka Arppe, I. Hyppänen, M. Kaiser, C. Würth, U. Resch-Genger, M. Schäferling, T. Soukka		0:20	
		12:40	13:00	O5	<i>ELECTROPHORETIC CHARACTERIZATION OF PHOTON UPCONVERTING NANOPARTICLES AND THEIR BIOCONJUGATES</i> Antonín Hlaváček, J. Přikryl, F. Foret		0:20	
		13:00	14:00		Lunch time		1:00	
Instrumentation, applications, characterisation	3	14:00	K2	<i>INTEGRATED ANALYTICAL DEVICES POWERED BY UPCONVERSION NANOTECHNOLOGY</i> Dayong Jin		0:45	Artur Bednarkiewicz	
		14:45	I3	<i>HIGH-THROUGHPUT DESIGN OF UPCONVERTING NANOPARTICLES FOR NEAR-INFRARED IMAGING IN HIGHLY SCATTERING MEDIA</i> Emory M. Chan, E. S. Levy, C. Tajon, T. S. Bischof, A. Fernandez-Bravo, P. James Schuck, B. E. Cohen		0:30		
		15:15	I4	<i>UPCONVERTING NANOPARTICLES PROVIDES MEANS FOR DEEP-TISSUE OPTICAL IMAGING AND PHOTOACTIVATION</i> Stefan Andersson-Engels, Haichun Liu, Monirehalsadat Mousavi		0:30		
		15:45	16:00		Coffee break (coffee/tea, cookies)		0:15	
	4	16:00	16:20	O6	<i>IN SITU SINGLE PARTICLE POLARIZED SPECTROSCOPY OF OPTICALLY TRAPPED UPCONVERTING NANORODS</i> Paloma Rodríguez-Sevilla, L. Labrador-Páez, D. Wawrzyńczyk, M. Nyk, M. Samoć, A. Kumar Kar, M. D. Mackenzie, L. Paterson, D. Jaque, P. Haro-González		0:20	Hans Tanke
		16:20	16:40	O7	<i>LANTHANIDE DOPED NANOPARTICLES - THE SOLUTION TO PHOTODYNAMIC HYBRIDOMA CELLS' SELECTION</i> A. Kowalczyk, M. Skowicki, S. Zelewski, K. Prorok, M. Misiak, Tomasz Lipinski, Artur Bednarkiewicz		0:20	
		16:40	17:00	O8	<i>1.39 μM EXCITED Tm³⁺ DOPED NANOPARTICLES FOR SUBTISSUE THERMAL SENSING WITH DEEP PENETRATION AND HIGH CONTRAST</i> Carlos Jacinto, A. F. Pereira, J. F. Silva, A. S. Gouveia-Neto, M. V. D. Vermelho		0:20	
		17:00	19:30		COST Management meeting, free time for other participants		2:30	
	20:00	23:00		Joined conference dinner		3:00		

Day 2 –24 th May 2016				The programme of UPCON conference –Tuesday			
Materials, characterisation, spectroscopy, UC enhancement	5	9:00	9:45	K3	<i>ON UPCONVERTING Ln³⁺ BASED NANOPARTICLES; A CRITICAL PERSPECTIVE ON SYNTHESIS, CHARACTERISATION, AND APPLICATIONS</i> Frank C.J.M. van Veggel	0:45	Tero Soukka
		9:45	10:15	I5	<i>OPTICAL TRAPPING FOR SINGLE UP-CONVERTING PARTICLE SPECTROSCOPY: FUNDAMENTALS AND BIO-APPLICATIONS</i> Daniel Jaque , P. Rodríguez-Sevilla, M. Pedroni, A. Speghini, M. Bettinelli, P. Haro-González, Yuhai Zhang, Liu Xiaogang and J. García Solé	0:30	
		10:15	10:35	O9	<i>ELECTROPHORESIS COMBINED WITH UPCONVERSION SCANNING AS A POWERFUL TOOL FOR THE SEPARATION, CHARACTERIZATION AND HIGHLY SENSITIVE DETECTION OF UCNPS</i> Hans Gorris , A. Hlaváček	0:20	
		10:45	11:00		Coffee break (coffee/tea, cookies)	0:15	
	6	11:00	11:20	O10	<i>SIZE DEPENDENT UPCONVERSION NANOTHERMOMETRY BASED ON (Sr,Yb,Er)F₂ NANOPARTICLES</i> Sangeetha Balabhadra , M. L. Debasu, J. Rocha, M. Bettinelli, L. D. Carlos	0:20	Jose Garcia Sole
		11:20	11:40	O11	<i>SYNTHESIS AND CHARACTERISATION OF VISIBLE/NEAR INFRARED LUMINESCENT ERBIUM COORDINATION COMPLEXES</i> Bahman Golesorkhi , Y. Suffren, L. Guénéé, H. Nozary, A. Hauser, C. Piguet	0:20	
		11:40	12:00	O12	<i>NANOPROBES FOR SENSING AND IMAGING OF INTRACELLULAR Ph BASED ON POLYETHYLENEIMINE-COATED PHOTON UPCONVERSION NANOPARTICLES CONJUGATED TO A Ph SENSITIVE RHODAMINE DYE</i> Michael Schäferling , T. Deguchi, S. Christ, R. Peltomaa, N. Prabhakar, J. Rosenholm, R. Arppe, T. Soukka, T. Näreoja	0:20	
		12:00	12:20	O13	<i>ENHANCED UP-CONVERSION EMISSION IN Yb³⁺/Tm³⁺, Yb³⁺/Er³⁺ AND Yb³⁺/Ho³⁺-DOPED GDVO₄ BY Li⁺ CO-DOPING</i> Miroslav Dramicanin , T. Gavrilović, D. Jovanović	0:20	
		12:20	12:40	O14	<i>FLUORESCENCE ENHANCEMENT AND ENERGY PROPAGATION IN PLASMONIC NETWORKS</i> Sebastian Maćkowski , K. Ciszak, A. Prymaczek, J. Grzelak, M. Nyk, D. Piatkowski	0:20	
		12:45	13:45		Lunch time	1:00	
Chemistry, Physics and modelling of LnNPs	7	13:45	14:30	K4	<i>REAL-TIME SPECTROSCOPIC MONITORING AND MATHEMATICAL MODELLING OF THE SYNTHESIS AND MODIFICATION OF NaYF₄ NANOCRYSTALS</i> P. Stanley May, P. B. May, Mary T. Berry	0:45	Frank C.J.M. van Veggel
		14:30	15:00	I6	<i>SOPHISTICATION IN LANTHANIDE COORDINATION CHEMISTRY: A PREREQUISITE FOR IMPLEMENTING UPCONVERSION AT THE MOLECULAR LEVEL</i> Claude Piguet	0:30	
		15:00	15:30	I7	<i>SPECTROSCOPIC IMAGING OF SURFACE PLASMON POLARITON ENHANCED ENERGY TRANSFER UPCONVERSION IN NaYF₄:Yb³⁺, Ln³⁺ NANOPARTICLES</i> Steve Smith	0:30	
		15:30	15:50	O15	<i>MODELLING THE NANOSCALE EFFECT ON THE UPCONVERSION OF β-NaYF₄:Yb³⁺, Er³⁺</i> Stanley May , Md Yeathad Hossan, A. Hor, S. Smith	0:20	
	15:50	16:10		Coffee break (coffee/tea, cookies)	0:20		
8	16:10	17:10		Future perspectives of UCNPs – panel discussion	1:00	AB,HG,TS	
	17:15			Poster session – poster shall be fixed to boards in the morning, 3 prizes for best posters will be granted and announced at the end of the conference			

Day 3 –25 th May 2016				The programme of UPCON conference – Wednesday			
	S						
Bioassays, bio-applications, toxicity, functional NPs	9	9:00	9:30	18	UPCONVERTING PHOSPHOR BASED LATERAL FLOW ASSAYS FOR MONITORING IMMUNOTHERAPY Hans Tanke , C. J. de Dood, E. M. Tjon Kon Fat, P. L.A.M. Corstjens	0:30	Dayong Jin
		9:30	10:00	19	UPCONVERSION LUMINESCENCE IN ULTRASENSITIVE SOLID-PHASE IMMUNOASSAY N. Sirkka, A. Lyttikäinen, T. Savukoski, H. Pääkkilä, R. Arppe, Tero Soukka	0:30	
		10:00	10:20	O16	SIZE-DEPENDENT CYTOTOXICITY OF BARE NaGdF ₄ :Yb ⁺³ :Er ⁺³ NANOCRYSTALS ON MACROPHAGES Edyta Wysockńska , J. Cichos , E. Ziolo , L. Strządała , M. Karbowskiak , W. Kałas	0:20	
		10:20	10:40	O17	ENHANCING THE FUNCTIONALITY OF THE UPCONVERSION NANOPARTICLES Julia Pérez-Prieto	0:20	
		10:40	11:00		Coffee break (coffee/tea, cookies)	0:20	
Biosensing, biodetection, bioimaging, therapies, theranostics	10	11:00	11:20	O18	FRET AND PHOTOLUMINESCENCE LIFETIMES OF UPCONVERTING NANOPARTICLES: FROM PHOTOPHYSICAL PROPERTIES TO BIOSENSING Niko Hildebrandt	0:20	Chun- Hua Yan
		11:20	11:40	O19	HYBRID UPCONVERTING NANOCOMPOSITE FOR PHOTODYNAMIC THERAPY Marta Maria Natile , G. Sotgiu, G. Varchi, L. Armelao	0:20	
		11:40	12:00	O20	INCREASING PENETRATION DEPTH IN BIOLOGICAL TISSUE IMAGING USING 808-NM EXCITED Nd ³⁺ /Yb ³⁺ /Er ³⁺ -DOPED UPCONVERTING NANOPARTICLES Monirehalsadat Mousavi , G. Sotgiu, G. Varchi, L. Armelao	0:20	
		12:00	12:20	O21	OPTIMIZING UPCONVERTING NANOPARTICLES FOR FRET-BASED ASSAYS Oleksii Dukhno , F. Przybilla, Y. Arntz, M. Collot, A. Klymchenko, M. Buchner , V. Muhr, T. Hirsch, Y. Mely	0:20	
		12:20	12:40	O22	LIVE-CELL IMAGING WITH UPCONVERTING NANOPARTICLES: 2D AND 3D SINGLE-PARTICLE TRACKING Y. Han Song, H. Li Jo, J. Park, Kang Taek Lee	0:20	
		12:40	13:00	O23	MULTIFUNCTIONAL OPTO-MAGNETIC NANOPARTICLES FOR THERANOSTIC APPLICATIONS Bożena Sikora , P. Kowalik, J. Mikulski, K. Fronc, I. Kamińska, M. Szewczyk, G. Grzeł, A. Konopka, K. Zajdel, M. Naurecka, R. Minikayev, T. Wojciechowski, M. Parlińska-Wojtan, A. Sienkiewicz M. Łapiński, M. Kwaśny, A. Borodziuk, M. Duda, K. Łysiak, A. Gardias, J. Rybusinski, J. Szczytko, A. Twardowski, M. Frontczak-Baniewicz, P. Stępień, G. Wilczyński, W. Paszkowicz, and D. Elbaum	0:20	
		13:00	13:20	O24	LIPID ENCAPSULATION AND RUTHENIUM DECORATION OF UPCONVERTING NANOPARTICLES (UCNPs) FOR PHOTO-ACTIVATED CHEMOTHERAPY (PACT) Michael Meijer , MM. Natile, S. Bonnet	0:20	
		13:20	13:30		Closing of Conference, announcement of next UPCON conference and school	0:10	
		13:30	14:45		Lunch time	1:15	

LIST OF ABSTRACTS

WITH PRESENTING AUTHORS

Keynote and invited talks (chronological order)

Presentation No.	First Name	Last Name	Abstract title
K 1	Chun-Hua	Yan	EFFICIENT TAILORING OF UPCONVERSION ENERGY TRANSFER IN RARE EARTH NANOCRYSTALS BY ENGINEERING LOCAL STRUCTURE AND CORE/SHELL ARCHITECTURE
K 2	Dayong	Jin	INTEGRATED ANALYTICAL DEVICES POWERED BY UPCONVERSION NANOTECHNOLOGY
K 3	Frank C.J.M.	van Veggel	ON UPCONVERTING Ln ³⁺ BASED NANOPARTICLES; A CRITICAL PERSPECTIVE ON SYNTHESIS, CHARACTERISATION, AND APPLICATIONS
K 4	Mary T.	Berry	REAL-TIME SPECTROSCOPIC MONITORING AND MATHEMATICAL MODELLING OF THE SYNTHESIS AND MODIFICATION OF NaYF ₄ NANOCRYSTALS
I 1	Markus	Haase	SYNTHESIS AND PROPERTIES OF NaREF ₄ CORE/SHELL NANOCRYSTALS
I 2	Guanying	Chen	ENERGY-CASCADED UPCONVERSION IN LAYERED ONION-LIKE FLUORIDE NANOCRYSTALS
I 3	Emory M.	Chan	HIGH-THROUGHPUT DESIGN OF UPCONVERTING NANOPARTICLES FOR NEAR-INFRARED IMAGING IN HIGHLY SCATTERING MEDIA
I 4	Stefan	Andersson-Engels	UPCONVERTING NANOPARTICLES PROVIDES MEANS FOR DEEP-TISSUE OPTICAL IMAGING AND PHOTOACTIVATION
I 5	Daniel	Jaques	OPTICAL TRAPPING FOR SINGLE UP-CONVERTING PARTICLE SPECTROSCOPY: FUNDAMENTALS AND BIO-APPLICATIONS
I 6	Claude	Piguet	SOPHISTICATION IN LANTHANIDE COORDINATION CHEMISTRY: A PREREQUISITE FOR IMPLEMENTING UPCONVERSION AT THE MOLECULAR LEVEL
I 7	Steve	Smith	SPECTROSCOPIC IMAGING OF SURFACE PLASMON POLARITON ENHANCED ENERGY TRANSFER UPCONVERSION IN NaYF ₄ :Yb ³⁺ ,Ln ³⁺ NANOPARTICLES
I 8	Hans J.	Tanke	MONITORING OF IMMUNE THERAPY USING UCNPs BASED LATERAL FLOW ASSAYS
I 9	Tero	Soukka	UPCONVERSION LUMINESCENCE IN ULTRASENSITIVE SOLID-PHASE IMMUNOASSAY

Oral presentations (chronological order)

Presentation No.	First Name	Last Name	Abstract title
O 1	Christian	Würth	POWER-DEPENDENT CHARACTERIZATION OF UPCONVERSION NANOPARTICLES IN THE VIS AND IR SPECTRAL REGION: NEW SETUP FOR ABSOLUTE QUANTUM YIELD MEASUREMENTS
O 2	Marco	Kraft	PARTICLE SIZE DEPENDENT ABSOLUTE PHOTOLUMINESCENCE QUANTUM YIELDS AND LIFETIMES OF HEXAGONAL β-

			NaYF ₄ : 2 % Er ³⁺ , 20 % Yb ³⁺ UPCONVERSION NANOPARTICLES IN CYCLOHEXANE AND WATER
O 3	Hong	Zhang	OPTIMIZATION OF BIOFUNCTIONAL UPCONVERSION NANOPLATFORM - ROLE OF THE SHELL
O 4	Riikka	Arppe	THE ROLE OF Yb ³⁺ SENSITIZER IN WATER-BASED QUENCHING OF UPCONVERSION PHOTOLUMINESCENCE
O 5	Antonín	Hlaváček	ELECTROPHORETIC CHARACTERIZATION OF PHOTON UPCONVERTING NANOPARTICLES AND THEIR BIOCONJUGATES
O 6	Paloma	Rodríguez-Sevilla	IN SITU SINGLE PARTICLE POLARIZED SPECTROSCOPY OF OPTICALLY TRAPPED UPCONVERTING NANORODS
O 7	Artur	Bednarkiewicz	LANTHANIDE DOPED NANOPARTICLES – THE SOLUTION TO PHOTODYNAMIC HYBRIDOMA CELLS SELECTION
O 8	Carlos	Jacinto	1.39 μm EXCITED Tm ³⁺ DOPED NANOPARTICLES FOR SUBTISSUE THERMAL SENSING WITH DEEP PENETRATION AND HIGH CONTRAST
O 9	Hans Heiner	Gorris	ELECTROPHORESIS COMBINED WITH UPCONVERSION SCANNING AS A POWERFUL TOOL FOR THE SEPARATION, CHARACTERIZATION AND HIGHLY SENSITIVE DETECTION OF UCNPS
O 10	Sangeetha	Balabhadra	SIZE DEPENDENT UPCONVERSION NANOTHERMOMETRY BASED ON (Sr,Yb,Er) ₂ F ₂ NANOPARTICLES
O 11	Bahman	Golesorkhi	SYNTHESIS AND CHARACTERISATION OF VISIBLE/NEAR INFRARED LUMINESCENT ERBIUM COORDINATION COMPLEXES
O 12	Michael	Schäferling	NANOPROBES FOR SENSING AND IMAGING OF INTRACELLULAR PH BASED ON POLYETHYLENEIMINE-COATED PHOTON UPCONVERSION NANOPARTICLES CONJUGATED TO A PH SENSITIVE RHODAMINE DYE
O 13	Miroslav	Dramićanin	ENHANCED UP-CONVERSION EMISSION IN Yb ³⁺ /Tm ³⁺ , Yb ³⁺ /Er ³⁺ AND Yb ³⁺ /Ho ³⁺ -DOPED GdVO ₄ BY Li ⁺ CO-DOPING
O 14	Sebastian	Maćkowski	FLUORESCENCE ENHANCEMENT AND ENERGY PROPAGATION IN PLASMONIC NETWORKS
O 15	Stanley	May	MODELLING THE NANOSCALE EFFECT ON THE UPCONVERSION OF β-NaYF ₄ :Yb ³⁺ ,Er ³⁺
O 16	Edyta	Wysokińska	SIZE-DEPENDENT CYTOTOXICITY OF BARE NaGdF ₄ :Yb ³⁺ :Er ³⁺ NANOCRYSTALS ON MACROPHAGES
O 17	Julia	Pérez-Prieto	ENHANCING THE FUNCTIONALITY OF THE UPCONVERSION NANOPARTICLES
O 18	Niko	Hildebrandt	FRET AND PHOTOLUMINESCENCE LIFETIMES OF UPCONVERTING NANOPARTICLES: FROM PHOTOPHYSICAL PROPERTIES TO BIOSENSING
O 19	Marta Maria	Natile	HYBRID UPCONVERTING NANOCOMPOSITE FOR PHOTODYNAMIC THERAPY
O 20	Monirehalsadat	Mousavi	INCREASING PENETRATION DEPTH IN BIOLOGICAL TISSUE IMAGING USING 808-NM EXCITED Nd ³⁺ /Yb ³⁺ /Er ³⁺ -DOPED UPCONVERTING NANOPARTICLES
O 21	Oleksii	Dukhno	OPTIMIZING UPCONVERTING NANOPARTICLES FOR FRET-BASED ASSAYS
O 22	Kang Taek	Lee	LIVE-CELL IMAGING WITH UPCONVERTING NANOPARTICLES: 2D AND 3D SINGLE-PARTICLE TRACKING
O 23	Bozena	Sikora	MULTIFUNCTIONAL OPTO-MAGNETIC NANOPARTICLES FOR THERANOSTIC APPLICATIONS
O 24	Michael S.	Meijer	LIPID ENCAPSULATION AND RUTHENIUM DECORATION OF UPCONVERTING NANOPARTICLES (UCNPS) FOR PHOTO-ACTIVATED CHEMOTHERAPY (PACT)

Poster presentations

Presentation No.	First Name	Last Name	Abstract title
P 1	Alpan	Bek	UPCONVERSION BY FANO RESONANT ALL-PLASMONIC AND MOLECULAR-PLASMONIC HYBRID NANOSTRUCTURES
P 2	Anna	Borodziuk	LANTHANIDE-DOPED UPCONVERSION NaYF ₄ NANOPARTICLES FOR PHOTODYNAMIC THERAPY
P 3	Dmitry	Busko	CHARACTERISATION OF UPCONVERTING MATERIALS: FROM MACRO TO NANOSCALE
P 4	Veronika	Čunderlová	PREPARATION OF AVIDIN MODIFIED PHOTON UPCONVERSION NANOPARTICLES
P 5	Bartłomiej	Czaban	UPCONVERSION QUANTUM YIELD MEASUREMENTS – INSTRUMENTATION, MEASUREMENTS AND ISSUES
P 6	Anna	Ekner-Grzyb	<i>IN VITRO</i> CYTOTOXICITY EVALUATION OF UPCONVERTING CaLuF ₅ AND SrLuF ₅ NANOPARTICLES DOPED BY Yb ³⁺ AND Ho ³⁺ , Tm ³⁺ OR Er ³⁺ IONS
P 7	Nestor	Estebanez	FUNCTIONAL POLYMER-CAPPED UPCONVERSION NANOPARTICLES
P 8	Srećko	Gajović	ASSESSING UPCONVERTING NANOPARTICLE BIOCOMPATIBILITY FOR NEURAL STEM CELL IMAGING
P 9	Maciej	Gawłowski	BIO-FUNCTIONALIZATION OF UCNP _s WITH PROTEIN G NOVEL APPROACH FOR UNIVERSAL IMMUNODETECTING AGENT
P 10	María	González-Béjar	ASSEMBLY OF UPCONVERSION AND LUMINESCENT NANOPARTICLES
P 11	Justyna	Grzelak	ENERGY TRANSFER BETWEEN UP-CONVERTING NANOCRYSTAL AND ORGANIC POLYMER
P 12	Tomasz	Grzyb	SYNTHESIS, CHARACTERIZATION AND CYTOTOXICITY OF UPCONVERTING NANOFLUORIDES
P 13	Ricardas	Rotomskis	BIOCOMPATIBLE NaGdF:Yb,Er@NaGdF UPCONVERTING NANOPARTICLES FOR DUAL IMAGING
P 14	Daniel	Horák	SILICA-MODIFIED MONODISPERSE HEXAGONAL LANTHANIDE NANOCRYSTALS: SYNTHESIS AND BIOLOGICAL PROPERTIES
P 15	Dragana	Jovanović	LOW-TEMPERATURE SYNTHESIS OF MULTIFUNCTIONAL Tm ³⁺ /Yb ³⁺ , Er ³⁺ /Yb ³⁺ , Ho ³⁺ /Yb ³⁺ DOPED-REVO ₄ (RE = Gd ³⁺ , Y ³⁺ , Lu ³⁺) ULTRASMALL COLLOIDAL UPCONVERTING NANOPARTICLES
P 16	Beatriz	Julián-López	NEW SYNTHETIC ROUTES TOWARDS RATIONAL DESIGN OF EFFICIENT UCNP _s
P 17	Magdalena	Duda	ENERGY TRANSFER BETWEEN ORGANIC DYES ("ANTENNA") ATTACHED TO THE SURFACE OF UPCONVERTING NANOPARTICLES
P 18	Cynthia Elisabeth	Kembuan	STRUCTURED METAL NANOSHELL PARTICLES FOR CONTROLLED ENHANCEMENT OF PHOTON UP-CONVERSION AND Cu DETECTION
P 19	Uliana	Kostiv	RGDS- AND TAT-CONJUGATED NaYF ₄ :Yb ³⁺ /Er ³⁺ &SiO ₂ NANOPARTICLES: PREPARATION AND BIOLOGICAL PROPERTIES
P 20	Agnieszka	Kowalczyk	RATIOMETRIC DETECTION OF MONOCLONAL ANTIBODIES WITH LIPOPOLYSACCHARIDE FUNCTIONALIZED UPCONVERTING NANOPARTICLES
P 21	Przemysław	Kowalik	MULTIFUNCTIONAL OPTO-MAGNETIC UP-CONVERTING NaYF ₄ &Fe ₃ O ₄ /SiO ₂ NANOPARTICLES – SYNTHESIS, CHARACTERIZATION AND BIOLOGICAL APPLICATIONS
P 22	Bettina	Grauel	Nd AS SENSITIZER IN NaYF ₄ :Yb,Er,Nd TRI-DOPED UPCONVERSION NANOCRYSTALS
P 23	Sergey	Kuznetsov	DEVELOPMENT OF EFFICIENT UP-CONVERSION LUMINOPHORES BASED ON CUBIC NaYF ₄ :YB:ER AND

			SRF ₂ :YB:ER FOR BIOMEDICAL APPLICATIONS
P 24	Satu	Lahtinen	SENSITIZING LONG-LIFETIME LUMINESCENT EUROPIUM(III) COMPLEX THROUGH INFRARED EXCITED PHOTON UPCONVERSION
P 25	Tero	Laihinien	EXTENSIVE STUDY OF NaYF ₄ :Yb ³⁺ ,R ³⁺ UP-CONVERSION LUMINESCENCE MATERIALS
P 26	Karol	Lemański	UPCONVERSION EMISSION OF THE CRYSTALLINE POWDERS OF GaN DOPED WITH LANTHANIDE IONS
P 27	Tomasz	Lipiński	NEW APPROACH FOR THE FUNCTIONALIZATION OF LANTHANIDE UCNP _s
P 28	Boris	Majaron	EFFECT OF THE COMPOSITION OF AQUEOUS MEDIA ON THE DISSOLUTION OF UPCONVERTING NaYF ₄ :Yb ³⁺ ,Tm ³⁺ NANOPARTICLES
P 29	Giacomo	Lucchini	ALKALINE-EARTH FLUORIDE NANOPARTICLES ACTIVATED WITH Ln ³⁺ IONS FOR MULTIMODAL BIOIMAGING
P 30	Manoj	Kumar Mahata	INTENSE YELLOW LIGHT EMITTING YVO ₄ :Ho ³⁺ /Yb ³⁺ DUAL MODE PHOSPHOR
P 31	Lukasz	Marciniak	UP-CONVERTING RARE EARTH DOPED PHOSPHATES FOR NON-CONTACT TEMPERATURE SENSING
P 32	Marta	Markowska	POLYMER COATED NaGdF ₄ :Yb ³⁺ :Er ³⁺ NANOCRYSTALS
P 33	Matthias	Mickert	HIGHLY SENSITIVE LASER SCANNING OF PHOTON-UPCONVERTING NANOPARTICLES ON A MACROSCOPIC SCALE
P 34	Małgorzata	Misiak	ENHANCEMENT OF UP-CONVERSION LUMINESCENCE IN Yb ³⁺ Tm ³⁺ CO-DOPED CaF ₂ NANOCRYSTALS BY SYNTHESIS MODULATION
P 35	Melissa-Jane	Monks	SPECTROSCOPIC STUDY OF LANTHANIDE-DOPED ALKALINE FLUORIDE UPCONVERSION NANOPARTICLES PREPARED VIA SOL GEL SYNTHESIS
P 36	Helena	Oliveira	UNVEILING THE BIOCOMPATIBILITY OF UPCONVERTING NANOMATERIALS: FINDING THE BEST WAY FORWARD
P 37	Henna	Päkkilä	DUAL-MODE MULTIPLEXING USING PHOTON UPCONVERSION IMAGING
P 38	Emilia	Palo	SENSITISING UP-CONVERSION MATERIALS WITH LAYER-BY-LAYER METHOD
P 39	Eric	Pedrol	A MICROFLUIDIC CHIP FOR UP-CONVERTING PARTICLE COUNTER
P 40	Niina	Perälä	RAPID APTAMER BASED HOMOGENEOUS ASSAY FOR ADENOSINE DEAMINASE ACTIVITY USING UPCONVERSION RESONANCE ENERGY TRANSFER
P 41	Krisjanis	Smits	ZIRCONIA NANOPARTICLES FOR BIO-IMAGING APPLICATIONS
P 42	Aleksandra	Pilch	ENERGY TRANSFER UPCONVERSION ENHANCEMENT IN HETEROGENOUSLY RARE EARTH DOPED ACTIVE-CORE @ ACTIVE-SHELL (ACAS) NANOPARTICLES
P 43	Sebastian	Radunz	EFFECT OF THE DISSOLUTION OF FLUORIDE UCNPS ON THEIR OPTICAL PROPERTIES
P 44	Daria	Pominova	THEORETICAL AND EXPERIMENTAL STUDY OF OPTIMAL PULSED MODE REGIMES FOR UPCONVERSION LUMINESCENCE EXCITATION
P 45	Ihor	Panas	J-AGGREGATES AS EFFECTIVE LIGHT HARVESTING UNITS FOR IMPROVING SPECTRAL PROPERTIES OF FLUORESCENT EMITTERS
P 46	Katarzyna	Prorok	UP- AND DOWN-CONVERSION LUMINESCENCE OF Tb ³⁺ /Yb ³⁺ CODOPED Y ₂ O ₃ NANOPARTICLES
P 47	Dominika	Przybylska	NANOLUMINOPHORES BASED ON M ^{II} F ₂ FLUORIDES (M ^{II} = Ba, Ca, Sr), DOPED LANTHANIDE IONS (Yb ³⁺ , Tm ³⁺ ,

			Er ³⁺ , Ho ³⁺) SHOWING UP-CONVERSION PHENOMENA
P 48	Benjamin	Ritter	NOVEL FLUOROLYTIC SOL-GEL SYNTHESIS OF RARE EARTH DOPED ALKALINE EARTH METAL FLUORIDE NANOPARTICLES
P 49	Anastasia	Ryabova	UPCONVERSION MICROPARTICLES AS TIME-RESOLVED PROBES IN LASER SCANNING MULTIPHOTON MICROSCOPY
P 50	Jarosław	Rybusiński	UP-CONVERSION IN MAGNETIC FIELD AND MAGNETIC PROPERTIES OF UP-CONVERTING NANOPARTICLES DOPED WITH RARE EARTH ELEMENTS, FOR BIO-MEDICAL IMAGING AND TREATMENT
P 51	Maysoon	Saleh	OPTIMIZATION OF THE COATING PROCEDURE OF UPCONVERSION NANOPARTICLES WITH SILICA
P 52	Michał	Skowicki	POLYSACCHARIDE BASED SURFACE MODIFICATION OF UPCONVERTING NANOPARTICLES AND THEIR APPLICATION
P 53	Krisjanis	Smits	EFFICIENCY OF UP-CONVERSION LUMINESCENCE OF Yb/Tm DOPED FLUORAPATITE NANOPOWDERS AND CERAMICS
P 54	Paulina	Sobierajska	LUMINESCENCE PROPERTIES OF Er ³⁺ /Yb ³⁺ IONS LOCATED IN Li ⁺ -DOPED FLUORAPATITE NANOMATERIALS
P 55	Mariusz	Stefanski	EFFICIENT BROADBAND ANTI-STOKES EMISSION FROM Yb ³⁺ :Sr ₂ CeO ₄ NANOCRYSTALS
P 56	Adam	Strzęp	SPECTROSCOPIC PROPERTIES OF NOVEL NANOSIZED MATERIAL: Eu DOPED YAsO ₄
P 57	Robert	Tomala	THE STUDY OF UP-CONVERSION EMISSION OF Y ₂ Si ₂ O ₇ :Nd ³⁺ NANOCRYSTALS
P 58	Artur	Tymiński	UP-CONVERSION LUMINESCENCE OF Yb ³⁺ /Ln ³⁺ (Ln = Ho, Er, Tm, Tb, Eu) DOPED PHOSPHATE NANOCRYSTALS
P 59	Adam	Watras	STRONG UP-CONVERSION EMISSION OF NOVEL Ca ₉ Yb(PO ₄) ₇ : Er ³⁺ PHOSPHOR
P 60	Dominika	Wawrzyńczyk	THE INFLUENCE OF OPTICALLY ACTIVE MOLECULES COATING ON SPECTROSCOPIC PROPERTIES OF UP-CONVERTING NaYF ₄ NANOPARTICLES
P 61	Rafał J.	Wiglusz	MATERIALS FOR REGENERATIVE MEDICINE
P 62	Erving	Ximendes	SELF-MONITORED PHOTOTHERMAL NANOPARTICLES BASED ON CORE-SHELL ENGINEERING
P 63	Katarzyna	Zawisza	UP-CONVERTING Ca ₃ (PO ₄) ₂ NANOPARTICLES ACTIVATED WITH Er ³⁺ AND Yb ³⁺ ION PAIRS FOR BIOAPPLICATIONS
P 64	Aleksander	Zięcina	SIZE TUNEABLE COLOUR UP-CONVERSION OF SrTiO ₃ :Er ³⁺ /Yb ³⁺ NANOPARTICLES
P 65	Shuang	Fang Lim	ENHANCEMENT OF UP CONVERTED FLUORESCENCE BY SUBWAVELENGTH INTERFERENCE LAYERS
P 66	Shuang	Fang Lim	NANOPLASMONIC UPCONVERTING NANOPARTICLES AS ORIENTATION SENSORS FOR SINGLE PARTICLE MICROSCOPY
P 67	Federico	Herrera	THE FLATWORM Schmidtea Mediterranea AS AN IN VIVO MODEL FOR THE TOXICITY OF UPCONVERTING NANOPARTICLES
P68	Eleonore	Fröhlich	TOXICOLOGICAL ASSESSMENT OF UCNPS In Vitro
P69	Emir	Karamehmedović	REMOVAL OF THE TIME-INVARIANT COMPONENT FROM AN OPTICAL SIGNAL UTILIZING NONLINEAR ELEMENT IN A RING LASER
P70	Diego	Mendez-Gonzalez	OLYETHYLENE GLYCATED NaYF ₄ :Yb,Tm@SiO ₂ NANOPARTICLES: NIR LIGHT RESPONSIVE SYSTEMS FOR

			TRIGGERING THE RELEASE OF DOXORUBICIN
P71	Diego	Mendez-Gonzalez	DENGUE miRNA BIOSENSOR BASED ON UCNPs AND GO
P72	Marco	Laurenti	UPCONVERSION EMISSION ENHANCEMENT THROUGH OLIGONUCLEOTIDE MEDIATED INTERACTION BETWEEN NaYF ₄ :Yb,Er NANOPARTICLES AND C-DOTS
P73	Shashi	Bhuckory	MORPHOLOGICAL AND OPTICAL CHARACTERIZATION OF PEGYLATED-Er ³⁺ ,Yb ³⁺ -DOPED NaGdF ₄ UPCONVERSION NANOPARTICLES FOR FRET
P74	Meral	Yüce	SURFACE FUNCTIONALIZATION OF UP-CONVERTING NANOPARTICLES WITH APTAMERS FOR SENSING PURPOSES