

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	10:00	K1 EFFICIENT TAILORING OF UPCONVERSION ENERGY TRANSFER IN RARE EARTH NANOCRYSTALS BY ENGINEERING LOCAL STRUCTURE AND CORE/SHELL ARCHITECTURE Chun-Hua Yan		0:45	Hans Gorris	
		10:00	10:30	I1 SYNTHESIS AND PROPERTIES OF NaREF ₄ CORE/SHELL NANOCRYSTALS S. Dühnen, T. Rinkel, A. Naduviledathu Raj, Markus Haase		0:30		
		10:30	11:00	I2 ENERGY-CASCADED UPCONVERSION IN LAYERED ONION-LIKE FLUORIDE NANOCRYSTALS Guanying Chen		0:30		
		11:00	11:20	Coffee break (coffee/tea, cookies)			0:20	
	2	11:20	11:40	O1 POWER-DEPENDENT CHARACTERIZATION OF UPCONVERSION NANOPARTICLES IN THE VIS AND IR SPECTRAL REGION: NEW SETUP FOR ABSOLUTE QUANTUM YIELD MEASUREMENTS 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 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 Marco Kraft, Christian Würth, Martin Kaiser, Verena Muhr, Thomas Hirsch, Ute Resch-Genger			0:20	
		12:00	12:20	O3 Optimization of biofunctional upconversion nanoplatfom - role of the shell Hong Zhang			0:20	
		12:20	12:40	O4 THE ROLE OF Yb ³⁺ SENSITIZER IN WATER-BASED QUENCHING OF UPCONVERSION PHOTOLUMINESCENCE N. Perälä, Riikka Arppe, I. Hyppänen, M. Kaiser, C. Würth, U. Resch-Genger, M. Schäferling, T. Soukka			0:20	
		12:40	13:00	O5 ELECTROPHORETIC CHARACTERIZATION OF PHOTON UPCONVERTING NANOPARTICLES AND THEIR BIOCONJUGATES Antonín Hlaváček, J. Přikryl, F. Foret			0:20	
		13:00	14:00	Lunch time			1:00	
Instrumentation, applications, characterisation	3	14:00	14:45	K2 INTEGRATED ANALYTICAL DEVICES POWERED BY UPCONVERSION NANOTECHNOLOGY Dayong Jin		0:45	Artur Bednarkiewicz	
		14:45	15:15	I3 HIGH-THROUGHPUT DESIGN OF UPCONVERTING NANOPARTICLES FOR NEAR-INFRARED IMAGING IN HIGHLY SCATTERING MEDIA Emory M. Chan, E. S. Levy, C. Tajon, T. S. Bischof, A. Fernandez-Bravo, P. James Schuck, B. E. Cohen		0:30		
		15:15	15:45	I4 UPCONVERTING NANOPARTICLES PROVIDES MEANS FOR DEEP-TISSUE OPTICAL IMAGING AND PHOTOACTIVATION 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 IN SITU SINGLE PARTICLE POLARIZED SPECTROSCOPY OF OPTICALLY TRAPPED UPCONVERTING NANORODS 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 LANTHANIDE DOPED NANOPARTICLES - THE SOLUTION TO PHOTODYNAMIC HYBRIDOMA CELLS' SELECTION A. Kowalczyk, M. Skowicki, S. Zelewski, K. Prorok, M. Misiak, Tomasz Lipinski, Artur Bednarkiewicz			0:20	
		16:40	17:00	O8 1.39 μM EXCITED Tm ³⁺ DOPED NANOPARTICLES FOR SUBTISSUE THERMAL SENSING WITH DEEP PENETRATION AND HIGH CONTRAST 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. Lyytikäinen, 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. Gruzeł, 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 UCNP 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	Grael	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
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