

## 2<sup>nd</sup> World Congress on New Technologies (NewTech'16)

The congress consists of:

7<sup>th</sup> International Conference on Nanotechnology: Fundamentals  
and Applications (ICNFA'16) Room (Zsolnay I)

6<sup>th</sup> International Conference on Environmental Pollution  
and Remediation (ICEPR'16) Room (Zsolnay I)

2<sup>nd</sup> International Conference on Biotechnology and Bioengineering  
(ICBB'16) Room (Zsolnay I)

*Registrants from the three conferences are permitted to attend any sessions from any of the three conferences.*

## Thursday August 18

8:00 AM	Registration
9:00 AM – 9:15 AM	Official Opening of Congress
9:15 AM – 10:00 AM	<b>ICNFA Keynote Lecture I:</b> <i>New Polymers and Polymer Materials based on Plant Oils</i> <b>Andriy Voronov</b> <b>North Dakota State University, USA</b>
10:00 AM – 10:45 AM	<b>ICEPR Keynote Lecture I :</b> <i>Carbon Nanotubes: Release to the Environment, Toxicity and Control Technologies</i> <b>Jing Wang</b> <b>ETH Zurich, Switzerland</b>
10:45 AM – 11:05 AM	<b>Coffee Break</b>

## 11:05 AM – 12:15 PM

Thursday

**Session Name:**  
Nanomaterials, Nanodevices:  
Fabrication, Characterization and Application I

**Session Chair:**  
**Dr. Kenichi Kasahara**

11:05 AM – 11:25 AM

ICNFA 129: *Ion Conducting Nanopores for (Bio)molecular Sensing: the iNAPO Project*  
**Wolfgang Ensinger**  
**Technische Universität Darmstadt, Germany**

11:25 AM – 11:35 AM

ICNFA 151: *Graphitization of SiC (0001) Surface in the Si Flux*  
**Piotr Ciochoń, Jacek Kołodziej**  
**Jagiellonian University, Poland**

11:35 AM – 11:55 AM

ICNFA 125: *Nanoparticles of Metals Oxides Preparation and Characterization*  
Valery Svetlichnyi, Ivan Lapin, Daria Goncharova,  
**Anastasiia Shabalina**  
**Tomsk State University, Russia**

11:55 AM – 12:05 PM

ICNFA 157: *Ultrasensitive FRET Based DNA Sensor Using PNA/DNA Hybridization*  
**Eunhae Koo, Lan-Hee Yang**  
**Korea Institute of Ceramic Engineering and Technology, Korea**

12:05 AM – 12:15 PM

ICNFA 141: *Morphology and Luminescence Characteristics of Yttriumdisilicate doped with Yb<sup>3+</sup>, Er<sup>3+</sup>(Ho<sup>3+</sup>) and Tm<sup>3+</sup>*  
**Cihat Boyraz, Murat Erdem, Mete Kaan Ekmekçi, Cumali Tav, Gonul Eryurek**  
**Marmara University, Turkey**

**Group Photo of the Congress will be happening from 12:15 PM to 12:20 PM.  
Please come to the registration desk to take the photo.**

12:20 PM – 1:20 PM

**Lunch**

1:20 PM – 2:05 PM

**ICNFA Keynote Lecture II:**  
*Asymmetry-Induced Resistive Switching in Ag-Ag<sub>2</sub>S-Ag Memristors Enabling a Simplified Atomic-Scale Memory Design*  
**András Halbritter**  
**Budapest University of Technology and Economics, Hungary**

Session Chairs:  
Dr. Andriy Voronov

## 2:05 PM – 3:15 PM

**Session Name:**  
Water Pollution and Treatment

**Session Chair:**  
**Dr. Bor-Yann Chen**  
**& Dr. Nasser Hamdan**

2:05 PM – 2:25 PM

ICEPR 124: *Metal Accumulation and Metallothionein Response in Fucus spiralis*  
**J. F. P. Oaten**, M. C. Gibson, M. D. Hudson,  
A. C. Jensen, I. D. Williams  
**University of Southampton, UK**

2:25 PM – 2:35 PM

ICEPR 165: *Omics for a Quick Survey of Microorganisms with Characteristics Interesting for Environmental Remediation of Radionuclides*  
**Pauline Petit**, Gérard Steinmetz, Claude Alban, Valérie Van Eesbeeck, Pieter Monsieurs, Jean Armengaud and Corinne Rivasseau  
**Commissariat À L'énergie Atomique Et Aux Énergies Alternatives & Université Grenoble Alpes, France**

2:35 PM – 2:45 PM

ICEPR 112: *Molecular Biological Method Can Indicate Evolution of Xenobiotic Degraders from Activated Sludge*  
**Nyuk-Min Chong**  
**DaYeh University, Taiwan**

2:45 PM – 3:05 PM

ICEPR 151: *Experimental and Theoretical Investigations of a Novel Multi-Stage Direct Contact Membrane Distillation Module*  
**Young-Deuk Kim, Woo-Seung Kim**  
**Hanyang University, Korea**

3:05 PM – 3:15 PM

ICEPR 132: *Drinking Water Treatment in Submerged Hollow Fiber Microfiltration: Effect of Backwashing*  
**Ergün Yildiz**, Ibrahim Cengiz, Arzu Kop, Nejdet Degermenci, Alper Nuhoglu  
**Ataturk University, Turkey**

3:15 PM – 3:35 PM

**Coffee Break**

Thursday

**3:35 PM – 4:05 PM**

**Session Name:**  
Soil Pollution and Treatment

**Session Chair:**  
**Dr. Young-Deuk Kim**

3:35 PM – 3:45 PM

ICEPR 150: *Characterization of Endophytic Pseudomonas Sp. 16 Strain and Its Use for the Enhancement of Phytoextraction*  
**Tomasz Płociniczak**, Iwona Mikołajczyk,  
Zofia Piotrowska-Seget  
**University of Silesia, Poland**

3:45 PM – 3:55 PM

ICEPR 148: *Sewage Sludge Land Application: Benefits, Risks and Changes in Soil Microbial Communities*  
**Anna Markowicz**, Kinga Bondarczuk, Zofia Piotrowska-Seget  
**University of Silesia, Poland**

3:55 PM – 4:05 PM

ICEPR 120: *An Experimental Study on the Electrolyte-Conditioning-Enhanced Electrokinetic Remediation of Hexavalent Chromium Contaminated Soil*  
Shanshan Li, **Jianbing Li**, Lei Liu  
**University of Northern British Columbia, Canada**

**4:05 PM – 5:35 PM**

**Session Name:**  
Wastewater Management and Treatment

**Session Chair:**  
**Dr. Jianbing Li & Dr. Young-Deuk Kim**

4:05 PM – 4:25 PM

ICEPR 172: *Volatile Organic Compounds in the Ventilation Air before and After the Biofilter of a Mechanical Waste Treatment Plant*  
**Christof Lanzerstorfer**, Bernhard Drach, Friedrich Pröll  
**University of Applied Sciences, Austria**

4:25 PM – 4:35 PM

ICEPR 147: *The Fate Of Beta-Lactam Resistance Determinants Within The Wastewater Plant In Żywiec And In Final Effluent Receiving Żywieckie Lake*  
**Kinga Bondarczuk**, Zofia Piotrowska-Seget  
**University of Silesia, Poland**

Thursday

4:35 PM – 4:55 PM	<p>ICEPR 101: <i>Deciphering Optimal Strategy of Microbial Fuel Cell-Assisted Natural Bioremediation of Textile Dyes</i> <b>Bor-Yann Chen, Pei-Lin Yueh, Ke Han, Lian-Jie</b> <b>National I-Lan University, Taiwan</b></p>
4:55 PM – 5:15 PM	<p>ICEPR 125: <i>Phosphorus Recovery from Hydrolysed Sewage Sludge Liquid Containing Metals using Donnan Dialysis</i> <b>Ayla Uysal, Dilara Tuncer, Esengul Kir,</b> Tugba Sardohan Koseoglu <b>Suleyman Demirel University, Turkey</b></p>
5:15 PM – 5:35 PM	<p>ICEPR 134: <i>Electro-Oxidation Treatment for Turbidity in Pistachio Processing Industry Wastewater (PPIW)</i> <b>Recep Boncukcuoğlu, Baybars Ali Fil, Alper Erdem Yılmaz,</b> Alper Nuhoglu <b>Balikesir University, Turkey</b></p>

# Friday

## August 19

9:00 AM – 9:45 AM	<b>ICBB Keynote Lecture :</b> <i>Accelerating Antibody Discovery Using Transgenic Animals Overexpressing the Neonatal Fc Receptors As A Result Of Augmented Humoral Immunity</i> <b>Imre Kacs Kovics</b> <b>Eötvös Loránd University, Hungary</b>	<b>Session Chair:</b> <b>Dr. Jing Wang</b>
9:45 AM – 10:30 AM	<b>ICEPR Keynote Lecture II:</b> <i>Global Environmental Challenges: Human-driven Oxidation of Reduced Sulfur Compounds from Geological Materials</i> <b>Chuxia Lin</b> <b>University of Salford, UK</b>	
10:30 AM – 10:50 AM	<b>Coffee Break</b>	
<b>10:50 AM – 12:15 PM</b>		
<b>Session Name:</b> Biotechnology and Bioengineering		<b>Session Chair:</b> <b>Dr. Andriy Voronov &amp;</b> <b>Dr. Imre Kacs Kovics</b>
10:50 AM – 11:05 AM	ICBB 102: <i>Influencing Fatty Acids Composition of Yeasts by Lanthanides</i> <b>Irena Kolouchova, Tomas Rezanka, Michal Zimola</b> <b>University of Chemistry and Technology, Prague</b>	
11:05 AM – 11:15 AM	ICBB119: <i>Biotechnologies for Metal Extraction: Assessment of Microalgae for Rare Earths Recycling and Environmental Remediation</i> Pro Danièle, Vial Jérôme, <b>Rivasseau Corinne</b> <b>Commissariat à l’Energie Atomique et aux Energies Alternatives, France</b>	

11:15 AM – 11:25 PM	ICBB 112: <i>Gene transfer therapy: A survey of clinical trials for treatment of various cancers</i> <b>Shruthi Selvaraj</b> <b>M.S. Ramaiah Institute of Technology, India</b>
11:25 AM – 11:35 PM	ICBB 103: <i>Global Transcriptome Analysis of Cucumber (Cucumis Sativus L.) in Response to Cucurbit Chlorotic Yellows Virus</i> Hsiu-fung Chao, <b>Yung-fu Yen</b> <b>National Chiayi University, Taiwan</b>
11:35 PM – 11:55 PM	ICBB 104: <i>The Effect of Hydrogen Cyanamide on Dormancy Breaking In Grapevine Buds: Reactive Oxygen Species Accumulation and Related Genes Expression</i> Boonyawat Sudawan, Chih-Sheng Chang, Hsiu-fung Chao, Maurice S. B. Ku, <b>Yung-fu Yen</b> <b>National Chiayi University, Taiwan</b>
11:55 PM – 12:05 PM	ICBB 115: <i>Effects of Aster Squamatus (Spreng.) Hieron Ethanolic Extract on Oxidative Stability of Sunflower Oil and Corn Oil</i> <b>Sebnem Selen Isbilir</b> <b>Trakya University, Turkey</b>
12:05 PM – 12:15 PM	ICBB 117: <i>Antimicrobial Activities of New Macrocyclic Esters Containing Furan and Thiophene Rings</i> <b>Hafize Özcan</b> , Anıl Deliorman, Ömer Zaim <b>Trakya University, Turkey</b>
12:15 PM – 1:15 PM	<b>Lunch</b>
<b>1:15 PM – 1:55 PM</b>	
<b>Session Name:</b> Nanomaterials, Nanodevices: Fabrication, Characterization and Application II	<b>Session Chair:</b> <b>Dr. Wolfgang Ensinger</b>
1:15 PM – 1:25 PM	ICNFA 139: <i>Evaluation of a Seed Coating Containing Essential Oil-Loaded Mesoporous Silica Nanoparticles against Pea Bacterial Blight</i> <b>Marimar Bravo Cadena</b> , Helen E. Townley, Gail Preston, Ian P. Thompson <b>University of Oxford, UK</b>

1:25 PM – 1:35 PM	<p>ICNFA 144: <i>Synthesis of Carbon Encapsulated Iron Nanoparticles from Olive Mill Wastewater for Water Remediation</i>  <b>B. Calderon</b>, F. Smith, I. Aracil, A. Fullana  <b>University of Alicante, Spain</b></p>
1:35 PM – 1:55 PM	<p>ICNFA 109: <i>pH-Mediated Release in a Model Drug Delivery System</i>  Marianne Robison, Mary R. Warmin,  <b>Clifford E. Larrabee, Jr.</b>  <b>University of Cincinnati, USA</b></p>
<b>1:55 PM – 2:35 PM</b>	
<b>Session Name:</b> Nanotechnology Modeling and Simulation	<b>Session Chair:</b> <b>Dr. Cliff Larrabee</b>
1:55 PM – 2:15 PM	<p>ICNFA 159: <i>First Principles Study of Sensitizers for Dye Sensitized Solar Cells: Effects of Adsorption Modes and Anchoring Groups</i>  Santhanamoorthi Nachimuthu, Wei-Chieh Chen, and  <b>Jyh-Chiang Jiang</b>  <b>National Taiwan University of Science and Technology, Taiwan</b></p>
2:15 PM – 2:35 PM	<p>ICNFA 152: <i>Exciton and Trion in 2D transition metal dichalcogenides</i>  A. Hichri, S. Ayari, S. Ben Nasseur, <b>S. Jaziri</b>  <b>Université de Carthage, Tunisie</b></p>
2:35 PM – 2:55 PM	<b>Coffee Break</b>
2:35 PM – 3:35 PM	<b>Parallel Poster Session (Page 10)</b>



**2:55 PM – 4:15 PM**

**Session Name:**  
Environmental Pollution and Remediation

**Session Chair:**  
**Dr. Chuxia Lin &**  
**Dr. Jianbing Li**

2:55 PM – 3:05 PM

*ICEPR127: Temporal Trends of Legacy and Emerging Persistent Organic Pollutants in Inuit Preschoolers from Nunavik (Québec, Canada)*  
**Huguette Turgeon O'Brien**, Doris Gagné, Rosanne Blanchet, Julie Lauzière, Carole Vézina, Pierre Ayotte  
**Laval University, Canada**

3:05 PM – 3:25 PM

*ICEPR 166: Distribution of Heavy Metals and Other Components in the Various Size Fractions of House Dust*  
**Christof Lanzerstorfer**  
**University of Applied Sciences, Austria**

3:25 PM – 3:35 PM

*ICEPR 169: Lake and Watershed Management : Issues and Challenges in Managing Lake Water Quality*  
**Bashirah Fazli**, Aziz Shafie, Suriyani Awang, Nasehir Fazli, Pauziah Hanum Abdul Ghani, Normaliza Noordin  
**University of Malaya, Malaysia**

3:35 PM – 3:55 PM

*ICEPR 115: On the Evaluation of Flue Gases Capturing Capacity of Porous Organic Materials*  
**Ruh Ullah**, Mert Atilhan, Cafer T. Yavuz  
**Qatar University, Qatar**

3:55 PM – 4:15 PM

*ICEPR 158: Particulate Matter Pollution in the United Arab Emirates: Elemental Analysis and Phase Identification of Fine Particulate Pollutants*  
**Nasser M. Hamdan**, Hussain Alawadhi, Najeh Jisrawi  
**University of Sharjah, United Arab Emirates**

8:00 PM – 10:00 PM

**Closing Ceremony**

# Poster Session

August 19

2:35 PM – 3:35 PM

ICBB 105: *Aptamer Based Aflatoxin B1 Detection System Using Graphene Oxide Quencher*

Min Young Joo, Seung Hoon Baek, Tae Jung Park

Chung-Ang University, Korea

ICBB 106: *In Vivo Synthesis of EuSe Nanoparticles and its Cytotoxicity against Cancer Cells*

Ji Min Seo, Eun Bee Kim, Tae Jung Park

Chung-Ang University, Korea

ICBB 110: *Exercise Treatment Effect: The Brain Metabolite Change of Magnetic Resonance Spectroscopy in Intracerebral Haemorrhage Rat Model*

Suk-Jun Lee, Seung-Man Yu

Gimcheon University, Korea

ICBB 111: *Effect of Sensorimotor Integration Exercise on Balance Among Patients with Stroke*

Sang-hun Jang, Onseok Lee

Gimcheon University, Korea

ICNFA 108: *Comparative Human Skin Permeation Study on nanocarriers for potential Transdermal Delivery of Progesterone*

Nazik Elgindy, Salma Mohyeldin, Mohamed Mehanna

Alexandria University, Egypt

ICNFA 118: *Possibility of Constructive Surface Plasmon Scattering in Organic Light Emitters*

Y. Mizoguchi, T. Yoneda, T. Inui, T. Ishiguro, K. Kasahara, N. Ikeda, Y. Sugimoto

Ritsumeikan University, Japan

ICNFA 123: *Preparation of a Highly Active Cu/Zno-Based Catalysts for the Methanol Synthesis with the Photochemical Method*

Maja Pori, Blaž Likozar, Marjan Marinšek, Zorica Crnjak Orel

National Institute of Chemistry, Slovenia

ICNFA 124: *PSPICE Analysis of CNFET Based Logic Circuits for Low Voltage Applications*

Chamindra Jayawickrama, Sunghyun Ji, Jin Woong Choi, Ala'aDdin Al Shidaifat, Van Ha Nguyen,

Hanjung Song

Inje University, Korea

ICNFA 134: *Characteristics of ZnXCo3-XO4 Spinel Thin Films*  
Do Hyoung Kim, Se-Jong Lee, Hee Young Lee, **Jai-Yeoul Lee**  
**Yeungnam University, Korea**

ICNFA 137: *Enhanced Water Condensation Rate by the Micro/nano Textured Surface*  
**Wan-Doo Kim**, Duck-Gyu Lee, Sunjong Oh, and Hyuneui Lim  
**Korea Institute of Machinery & Materials, Korea**

ICNFA 138: *A Versatile Memristor Circuit Emulator for Nanoscale Thin-film TiO2 Using Discrete-electronic Components*  
Van Ha Nguyena, Jakyeong Lee, **Ala'aDdin Al Shidaifat**, Jae Keun Song, Hanjung Songb  
**Inje University, Korea**

ICNFA 149: *Improvement of wear resistance of AZ31 B Mg alloy by applying oxide-SiC nanocomposite coating via plasma electrolytic oxidation*  
**Reza Ebrahimi-Kahrizsangi**, Hadi Nasiri Vatan  
**Islamic Azad University, Iran**

ICNFA 150: *Tuning a Model Drug Delivery System for Size and Loading Capacity*  
**Alyssa Amato**, Clifford Larrabee  
**University of Cincinnati, USA**

ICNFA 161: *Indocyanine Green-Loaded Hollow Mesoporous Silica Nanoparticles as a Novel Theranostics*  
Suk Ho Hong, **Yongdoo Choi**  
**National Cancer Center, Korea**

ICNFA 162: *Influence of Methylcellulose on Bioaccessibility of  $\beta$ -Carotene Incorporated within Starch-based Filled Hydrogels*  
**Saehun Mun**  
**Seoul National University, Korea**

ICEPR 108: *Removal of Mixed Heavy Metals and Pahs by Immobilized Selenastrum Capricornutum*  
**Nora Fung-Yee Tam**, Ping Wang, Dan Deng, and Yuk-Shan Wong  
**City University of Hong Kong, Hong Kong**

ICEPR 130: *Sulfur Supply Attenuate Cd Damage on Photosynthetic Apparatus of Massai Grass Used For Phytoextraction*  
**Flávio Henrique Silveira Rabêlo**, Elcio Ferreira dos Santos, Lucélia Borgo, José Lavres Junior  
**University of São Paulo, Brazil**

ICEPR 156: *Electrospun Carbon Nanofibers with Surface Attached Zero Valent Iron Nanoparticles for Heavy metals Remediation in Ground and Wastewater*  
Nikhil Mucha, **Ramesh Ravella**, Muchha Reddy, Lifeng Zhang  
**North Carolina A&T State University, USA**

ICEPR 163: *MCM41/Fe<sub>3</sub>O<sub>4</sub>/EDTA materials from removal different cation from waste water*

Ioana Lavinia Ardelean, Marius Popa, Denisa Ficai, **Anton Ficai**, Bogdan Stefan Vasile, Maria Sonmez, Gheorghe Nechifor, Ecaterina Andronescu

**University Politehnica of Bucharest, Romania**

ICEPR 164: *Adsorption/Desorption studies of peanut husks using salicylic acid model*

**Dragos Gudovan**, Iulia Alexandra Gudovan, Ana Ivanof, Maria Georgiana Stefanov

**University Politehnica of Bucharest, Romania**

ICEPR 167: *The Distribution Pattern of Alkylphenol Polyethoxylates (APEOs) in Aquatic Environment of Kaohsiung Area, Taiwan*

Ping-Chang Ku, Te-An Gong, **Wei-Hsien Wang**

**National Sun Yet-Sen University, Taiwan**