

**Polymers / Composites / 3Bs Materials 2023**  
**Joint International Conferences Preliminary Program**  
**22 - 24 Feb 2023, Bangkok - Thailand**

Wed. 22 Feb. 2023		
08:00 - 12:00 Participants registration & welcome coffee break		
<b>Polymers / Composites / 3Bs Materials 2023 Session I. A</b>		
Conference Room Sukhumvit 5&6 3rd Floor		
<b>Session's Chairs:</b> <b>Prof Stanisław Kuciel, Cracow University of Technology, Poland</b> <b>Prof. Ana Pilipovic, University of Zagreb, Croatia</b> <b>Prof Tae Hyun Kim, Soonchunhyang University, Rep. of Korea</b>		
10:00 - 10:30	Improvement of Packaging Materials Properties by Nanocoating with Plasma Technology <b>P. Rachtanapun</b>	<b>Prof. Pornchai Rachtanapun</b> , Chiang Mai University, Thailand
10:30 - 11:00	Solution plasma synthesis of electrocatalytic carbon-based composite materials for oxygen reduction reaction <b>T. Ishizaki</b> , K. Fukushima, K. Tanaka, S. Ando, K. Sasaki and S. Chae	<b>Prof. Takahiro Ishizaki</b> , Shibaura Institute of Technology, Japan
11:00 - 11:30	Electrospinning parameters: effect on the morphology of PLA/PBS fibers <b>H. Al-Turaif</b> and U. Saeed	<b>Prof. Hamad Al-Turaif</b> , King Abdulaziz University, Saudi Arabia
11:30 - 11:45	Short Oligomeric Molecules Demonstrate Behavior of Bistable Machines <b>A.D. Muratov</b> , M.A.Frolkina, A.A. Markina, V.S. Petrovskii, A.F. Valov and V.A. Aveti-sov	<b>Dr. Alexander Muratov</b> , Russian Academy of Sciences, Russia
11:45 - 12:00	Highly Flexible Amino Functionalized Metal Organic Framework/rGO Composite Film for Advanced Anodes for Li-ion Batteries R. Shah, S. Alia, S. Ali, P. Xia, F. Raziq, <b>Adnan</b> , F. Mabood, S. Shah, A. Zada, P.M. Ismail, A. Hayat, A.U. Rehman, X. Wu, X. An, Q. Kong, H. Xiao, X. Zua, S. Li and L. Qiao	<b>Prof. Adnan Adnan</b> , University of Swat, Pakistan
12:00 - 14:00 Lunch Break – Atrium Restaurant (Lobby Level)		
<b>Polymers / Composites / 3Bs Materials 2023 Session I. B</b>		
<b>Session's Chairs:</b> <b>Prof. Pornchai Rachtanapun, Chiang Mai University, Thailand</b> <b>Prof. Hamad Al-Turaif, King Abdulaziz University, Saudi Arabia</b> <b>Prof. Mounsiif Ech-Cherif El-Kettani, AMS- LOMC UMR- Le Havre, France</b>		
14:00 - 14:30	Design and manufacturing of thermoplastic matrix composite panels with over-moulded stiffening grids <b>P. Olivier</b> , B. Castanie and F. Neveu	<b>Prof. Philippe Olivier</b> , University of Toulouse, France
14:30 - 14:45	Analysis of the effect of adhesive aging on the efficiency of bonded composite repair of aluminum panels using elastic-plastic approach B. Bachir Bouiadjra, S.M.A.K. Mohammed, F. Benyahia and <b>A. Albedah</b>	<b>Prof. Abdulmohsen Albedah</b> , King Saud University, Saudi Arabia
14:45 - 15:00	Integrated design framework of 3D printed planar stainless tubular joint: modelling, optimization, manufacturing, and experiment <b>X. Deng</b> and S. Huang	<b>Dr. Xiaowei Deng</b> , University of Hong Kong, Hong Kong
15:00 - 15:15	Fabrication of the PHB Copolymers Drawn Films by Microcrystalline Nucleation Stretching Method with Different Soaking Solvents in Isothermal Crystallization Process <b>K. Weng</b> , T. Tanaka, Y. Takayama and M. Nishijo	<b>Mr. Kai Weng</b> , Shinshu University, Japan
15:15 - 15:30	Carbon fiber reinforced polymer composite fin heat exchanger for Air source heat pump system under frosting and defrosting condition <b>S. Abbas</b> and C.W. Park	<b>Mr. Saleem Abbas</b> , Jeonbuk National University, Rep. of Korea

<b>15:30 - 15:45</b>	Photodegradable, tough and highly stretchable hydrogels <b>R. G. Fonseca</b> , F. De Bon, P. Pereira, F. M. Carvalho, M. Freitas, M. Tavakoli, A. C. Serra, A. C. Fonseca and J. F. J. Coelho	<b>Dr. Rita Fonseca</b> , University of Coimbra, <b>Portugal</b>
<b>15:45 - 16:00</b>	Mechanical properties of glassy polymer nanocomposites via atomistic and continuum models: The role of Interphases <b>H. Reda</b> , T. Hazirakis, A. F. Behbahani, N. Savva and V. Harmandaris	<b>Dr. Hilal Reda</b> , The Cyprus Institute, <b>Cyprus</b>
<b>16:00 - 16:15</b>	Multiscale Process Modeling Analysis for the prediction of Composite Strength Allowables G.M. Odegard and <b>M. Maiaru</b>	<b>Dr. Marianna Maiaru</b> , University of Massachusetts, <b>USA</b>
<b>16:15 - 16:30</b>	Experimental assessment of evaporative cooling performance of Palm leaves pad <b>S. Ghani</b> and E. Mahdi	<b>Prof. Saud Ghani</b> , Qatar University, <b>Qatar</b>
<b>16:00 - 18:00</b>	<b>Afternoon Coffee Break and Posters Networking &amp; Discussions Session</b>	

Thu. 23 Feb 2023

**Polymers / Composites / 3Bs Materials 2023 Session II. A**

Conference Room Sukhumvit 5&6 3rd Floor

Session's Chairs:

**Prof. Stanisław Kuciel, Cracow University of Technology, Poland**

**Prof. Philippe Olivier, University of Toulouse, France**

**Prof. Istvan Toth, The University of Queensland, Australia**

09:00 - 09:30	Influence of aging on tensile properties of agriculture films <b>A. Pilipović</b> , I. Tucman and M. Rujnić Havstad	<b>Prof. Ana Pilipovic</b> , University of Zagreb, <b>Croatia</b>
09:30 - 10:00	Polymer-Surfactant Binding for Environmental Separations <b>M. Tsianou</b>	<b>Prof. Marina Tsianou</b> , University at Buffalo, <b>USA</b>
10:00 - 10:30	Innovative investigation on key-structural elements of offshore wind-energy generation, Smart composite Large-size wind-blades and electric-transport cables <b>M. Drissi-Habti</b>	<b>Prof. Monsef Drissi-Habti</b> , Université Gustave Eiffel, <b>France</b>

10:30 - 11:00

Morning Coffee Break (Level 3)

Session's Chairs:

**Prof. Istvan Toth, The University of Queensland, Australia**

**Prof Stanisław Kuciel, Cracow University of Technology, Poland**

**Prof. Philippe Olivier, University of Toulouse, France**

11:00 - 11:30	Valorization of Plastic Waste: Research Advances in Molecular Recycling <b>P. Alexandridis</b>	<b>Prof. Paschalis Alexandridis</b> , University at Buffalo, <b>USA</b>
11:30 - 12:00	Ultrasounds Methods for Non-Destructive Evaluation of Composite Structural Bondings Aging in Marine environment. D. Leduc, <b>M. Ech-Cherif El-Kettani</b> , P. Manoucherehnia and M-V. Predoi	<b>Prof. Mounsiif Ech-Cherif El-Kettani</b> , AMS- LOMC UMR- Le Havre, <b>France</b>
12:00 - 12:15	Integration of Circular Economy Thinking for Sustainable Production: Bio-based Hybrid Composites from Waste Materials <b>E. Mahdi Saad</b> , S; Ghani, F. Ghassan Alabtah, M. Khraisheh and M. Kucukvar	<b>Prof. Elsadig Saad</b> , Qatar University, <b>Qatar</b>

12:00 - 14:00

Lunch Break - Atrium Restaurant (Lobby Level)

Group Photo at 13:45

**Polymers / Composites / 3Bs Materials 2023 Session II. B**

Session's Chairs:

**Prof. Tapas K. Mandal, Yeungnam University, Rep. of Korea**

**Prof. Ramin Sedaghati, Concordia University, Montreal, Canada**

**Prof. Tae Hyun Kim, Soonchunhyang University, Rep. of Korea**

14:00 - 14:30	GnRH Peptide/Adjuvant Conjugate Vaccine Candidates to Treat Cancer and for Veterinary Immunocastration <b>I Toth</b>	<b>Prof. Istvan Toth</b> , The University of Queensland, <b>Australia</b>
14:30 - 15:00	Hybrid composites based on biopolypropylene modified with basalt and microcellulose fibers with the addition of antibacterial turmeric <b>S. Kuciel</b> , A. Banas, K. Rusin-Zurek	<b>Prof Stanisław Kuciel</b> , Cracow University of Technology, <b>Poland</b>
15:00 - 15:30	Multi-faceted Approach for Forming Nanostructures for Surface Enhanced Spectroscopy Applied to Detection of Biologically Relevant Molecules in Agriculture and Food Industry <b>H. Takei</b> , T. Okamoto and A. Götzhäuser	<b>Prof. Hiroyuki Takei</b> , Toyo University, <b>Japan</b>
15:30 - 15:45	Basalt fibers reinforced polylactide composites modified by antibacterial nanoparticles <b>K. Rusin-Zurek</b> , K. Mazur and S. Kuciel	<b>Ms. Karina Rusin-Zurek</b> , Cracow University of Technology, <b>Poland</b>
15:45 - 16:00	On Chemical Actuation of Shape Memory Polymers (SMPs) <b>Y. Shen</b> , G. Eggeler and K. Neuking	<b>Ms. Yucen Shen</b> , Ruhr University Bochum, <b>Germany</b>

16:00 - 16:30

Afternoon Coffee Break (Level 3)

**Session's Chairs:**  
**Prof. Monsef Drissi-Habti, Gustave Eiffel University, France**  
**Prof. Ramin Sedaghati, Concordia University, Montreal, Canada**  
**Prof. Hiroyuki Takei, Toyo University, Japan**

<b>16:30 - 17:00</b>	Multiplexed Nanomaterial-Based Sensor Array for Detection of Pathogenic Microbes <b>T.K. Mandal</b> and <b>S.W. Joo</b>	<b>Prof. Tapas K. Mandal,</b> Yeungnam University, <b>Rep. of Korea</b>
<b>17:00 - 17:15</b>	Mesenchymal Stem Cell Adhesion on Plasma-Coated Biodegradable Nanofibers <b>A.M. Manakhov, A.O. Solovieva</b> and <b>N.A. Sitnikova</b>	<b>Dr. Anastasiya Solovieva,</b> RICEL- Branch of ICG SB RAS, Novosibirsk, <b>Russia</b>
<b>17:15 - 17:30</b>	Positive Impact of composite materials with Ag modification on wound healing <b>N.A. Sitnikova,</b> <b>A. O. Solovieva,</b> <b>A.M. Manakhov</b> and <b>E.S. Permyakova</b>	<b>Ms. Natalia Sitnikova,</b> RICEL- Branch of ICG SB RAS, Novosibirsk, <b>Russia</b>
<b>17:30 - 17:45</b>	Application of graphitic carbon nitride nanosheets as a multifunctional nanofiller in cryogels for wastewater treatment and quality monitoring <b>K. Dziza,</b> <b>L. Vásquez,</b> <b>V. Binas,</b> <b>A. Athanassiou</b> and <b>D. Fragouli</b>	<b>Ms. Katarzyna Dziza,</b> IIT Italian Institute of Technology, <b>Italy</b>
<b>17:45 - 18:00</b>	Effect of Graphene Oxide Doped PEDOT: PSS as a Hole Transport Layer and Annealed Temperature on the Inverted Perovskite Solar Cell From the Waste of Electric Arc Furnace Electrode <b>Y.R. Denny,</b> <b>M. Fadli,</b> <b>T.A. Maulana,</b> <b>S.D. Ramdani</b> <b>L.D. Assaat,</b> <b>R. Alfanz,</b> <b>M. Siswahyu</b> and <b>S. Hamaguchi</b>	<b>Dr. Yus Rama Denny,</b> University of Sultan Ageng Tirtayasa, <b>Indonesia</b>
<b>18:00 - 18:15</b>	Effect of Filler Concentration and Sonication Time on Graphite-ZnO Composites with Epoxy Resin Matrix as Microwave Material Absorbing <b>Y. R. Denny,</b> <b>S. D. Ramdani,</b> <b>A. Trenggono,</b> <b>S. E. A. Anggraini</b> <b>5,</b> <b>Y. Taryana</b> and <b>S. Ari-tonang</b>	<b>Dr. Sulaeman Deni Ramdani,</b> University of Sultan Ageng Tirtayasa, <b>Indonesia</b>

Fri. 24 Feb. 2023

**Polymers / Composites / 3Bs Materials 2023 Session III**

Conference Room Sukhumvit 5&6 3rd Floor

**Session's Chairs:**

**Prof Thomas Gries, RWTH Aachen University, Germany**

**Prof. Monssef Drissi-Habti, Gustave Eiffel University, France**

**Prof. Mounsiif Ech-Cherif El-Kettani, AMS- LOMC UMR- Le Havre, France**

<b>09:00 - 09:30</b>	Task-Specific Design and Functionalization of Porous Poly-Calixarene for Water Purification <b>A. Trabolsi</b>	<b>Prof. Ali Trabolsi, New York University Abu Dhabi, UAE</b>
<b>09:30 - 10:00</b>	Application of the SSA thermal fractionation technique to recycled polyolefin blends and thermoplastic polyurethanes <b>A. J. Müller</b>	<b>Prof. Alejandro J. Müller, University of the Basque Country UPV/EHU, Spain</b>
<b>10:00 - 10:30</b>	<b>Morning Coffee Break (Level 3)</b>	
<b>Discussion panel on Sustainability transitions with and for polymers, composites, biobased, biodegradable, and biomimetic materials</b>		
<b>Chairs:</b>		
<b>Prof Thomas Gries, RWTH Aachen University, Germany</b>		
<b>Dr. Jan Vincent Jordan, RWTH Aachen University, Germany</b>		
<b>10:30 - 11:00</b>	Contributions of composites to climate adaptation and water security <b>J.V. Jordan, M. Raina, D. Granich and T. Gries</b>	<b>Dr. Jan Vincent Jordan, RWTH Aachen University, Germany</b>
<b>11:00 - 12:00</b>	<b>Workshop program</b> <ul style="list-style-type: none"><li>• Discussion of sustainability challenges in the production of polymers, composites, biobased, biodegradable and biomimetic materials</li><li>• Collection of best practices to address these challenges</li><li>• Discussion of sustainability challenges of industry and society that polymers, composites, biobased, biodegradable and biomimetic materials currently and in the future addresses</li><li>• Collection of best practice examples, project &amp; funding schemes and ideas to realise the sustainability potentials of polymers, composites, biobased, biodegradable and biomimetic materials</li><li>• Conclusions, wrap-up and outlook on potential further steps</li></ul>	<b>Prof. Thomas Gries, Director of the Institut für Textiltechnik of RWTH Aachen University, Germany</b> <b>Mr. Uday Gill, Chief Strategy Officer/Executive Director, Indorama Ventures PLC, Thailand</b> <b>Mr. Sunphat Pojanavaraphan, Managing Director SC Grand, Thailand</b>
<b>12:00 - 14:00</b>	<b>Lunch Break and Conference Closure - Atrium Restaurant (Lobby Level)</b>	

## Polymers / Composites / 3Bs Materials 2023 Posters

Online: during and after the conference

Onsite: Posters Networking and Discussions - 22 Feb.2023 16:00 - 18:00

N.	Poster Title	Author, Affiliation, Country
1.	Production of 2,5-Furandicarboxylic Acid from Fructose Using dual magnetic-based Catalyst L-J. Chien, T-L. Ho, <b>H-C. Tsui</b> , and Y-H. Cai	<b>Mr. Han-Chun Tsui</b> , Ming Chi University of Technology, <b>Taiwan</b>
2.	The role of Al <sub>2</sub> O <sub>3</sub> interlayer in the synthesis of ZnS/Al <sub>2</sub> O <sub>3</sub> /MoS <sub>2</sub> core-shell nanowires E. Butanovs, A.Kuzmin, A. Zolotarjovs, S. Vlassov and <b>B. Polyakov</b>	<b>Dr. Boris Polyakov</b> , University of Latvia, <b>Latvia</b>
3.	Aldehyde-free resins based on resorcinol and natural alkylresorcinols modified with styrene <b>A. Jurkeviciute</b> , L. Grigorieva, K .Tõnsuaadu and T. Yashicheva	<b>Mrs. Ana Jurkeviciute</b> , Tallinn University of Technology, <b>Estonia</b>
4.	Laser Ablation Synthesis of Semiconductor Nanocomposites with Tunable Plasmonic and Paramagnetic Properties <b>Y.V. Ryabchikov</b>	<b>Dr. Yury V. Ryabchikov</b> , Institute of Physics of the Czech Academy of Sciences, <b>Czech Rep.</b>
5.	Physical Treatment of Biopolymer and Its application in Elastomeric Composites <b>Z. Mičicová</b> , P. Skalková, I. Papučová, J. Pagáčová, A. Dubec, R. Janík, M. Janeková, D. Košťáliková and A. Prnová	<b>Dr. Zuzana Mičicová</b> , Alexander Dubček University of Trenčín, <b>Slovak Rep.</b>
6.	Effect of Surface Treated Biopolymer on Curing Behavior and Tensile Properties of Natural Rubber Composites <b>Z. Mičicová</b> , P. Skalková, D. Ondrušová, M. Pajtášová, J. Dobrovská	<b>Dr. Zuzana Mičicová</b> , Alexander Dubček University of Trenčín, <b>Slovak Rep.</b>
7.	Influence of maleinized rubber on the properties of elastomeric composites filled with biopolymer <b>J. Vrškova</b> , I. Labaj, P. Skalková, A. Dubec and M. Pajtášová	<b>Dr. Juliána Vrškova</b> , Alexander Dubček University of Trenčín, <b>Slovak Rep.</b>
8.	Pretreatment and modification of cellulose as a filler for elastomeric composites <b>R. Janík</b> , I. Labaj, P . Skalková and J. Dobrovská	<b>Dr. Róbert Janík</b> , Alexander Dubček University of Trenčín, <b>Slovak Rep.</b>
9.	Effect of surface modification conditions of cellulose on final properties of elastomeric composites <b>I. Labaj</b> , P. Skalková, J. Vrškova and D. Ondrušová	<b>Dr. Ivan Labaj</b> , Alexander Dubček University of Trenčín, <b>Slovak Rep.</b>
10.	Characterization and Thermal Stability of Surface Modified Cellulose in Polymer Composites <b>P. Skalková</b> , Z. Mičicová, I. Papučová, J. Pagáčová, A. Dubec, R. Janík, D. Ondrušová, M. Pajtášová and S. Božeková	<b>Prof. Petra Skalková</b> , Alexander Dubček University of Trenčín, <b>Slovak Rep.</b>
11.	Hybrid Implant with Improved Osseointegration Properties <b>E. Aghion</b> , N. Gabay, T. Ron and A. Shirizly	<b>Prof. Eli Aghion</b> , Ben-Gurion University of the Negev, <b>Israel</b>
12.	Radiative cooling of dark tone pigments with high near-infrared reflection properties J.S. Hwang and <b>Y-S Kim</b>	<b>Dr. Young-Seok Kim</b> , Korea Electronics Technology Institute, <b>Rep. of Korea</b>
13.	Prediction of Creep Behavior of Pressure-sensitive adhesives <b>Y. Kim</b> , H. Yun and C-J. Lee	<b>Dr. Youngmin Kim</b> , Korea Electronics Technology Institute, <b>Rep. of Korea</b>
14.	Skin Absorption Protective Silver Micro-particles as an Upcoming Nontoxic Antimicrobial Agent <b>N. Parvin</b> and S. W. Joo	<b>Dr. Nargish Parvin</b> , Yeungnam University, <b>Rep. of Korea</b>
15.	A novel poly(3-hydroxyoctanoate) diclofenac decorated dressings for wound healing <b>M. Guzik</b> , K. Harażna, K. Kasarełto, D. Solarz-Keller, A. Cudnoch-Jędrzejewska, T. Witko, Z. Rajfur and M. Seta	<b>Dr. Maciej Guzik</b> , Jerzy Haber Institute of Catalysis and Surface Chemistry, Polish Academy of Sciences-Krakow, <b>Poland</b>
16.	Polyhydroxyalkanoates – biodegradable and biocompatible polymers produced by environmental bacteria <b>J.Prajsnar</b> , R.Bugno, A. Bojarski, K. Stępień and M. Guzik	<b>Ms. Justyna Prajsnar</b> , Jerzy Haber Institute of Catalysis and Surface Chemistry, <b>Poland</b>
17.	Ultra-Sensitive Sensor based on Single-walled Carbon Nanotube Field-effect Transistor for Detection of Endocrine Disruptors Nonylphenol T. Hyun Kim and <b>H. Cho</b>	<b>Ms. Hyunju Cho</b> , Soonchunhyang University, <b>Rep. of Korea</b>

18.	Hydrogen Peroxide Sensing of Prussian Blue/Graphene Quantum Dots Electrodeposition Electrode <b>Y. Cho</b> and T. Hyun Kim	<b>Ms. Yujin Cho</b> , Soonchunhyang University, <b>Rep. of Korea</b>
19.	Electrochemical Aptasensor for Detection of EcoRV Based on rGO/GCE <b>H.,Kim</b> and T. Hyun Kim	<b>Mr. Hyunbeom kim</b> , Soonchunhyang University, <b>Rep. of Korea</b>
20.	First-principle calculations of DNA/RNA on MoOS Janus layer <b>S. Laref</b> , X. Gao and T. Gojobori	<b>Dr. Slimane Laref</b> , King Abdullah University of Science and Technology (KAUST), <b>Saudi Arabia</b>
21.	Deep Learning Assisted Protein Entanglement Prediction based on Gauss Linking Integral Matrix <b>P. Deng</b> , L. Xu, Q. Ye, J. Yu, W. Zhang and H. Gao	<b>Mr. Puqing Deng</b> , Hong Kong University of Science and Technology, <b>Hong Kong</b>
22	Aaryl 1-(Methoxymethyl)Vinyl Ketone-based Corrosion Inhibitor for Mitigating Acidic Corrosion During Well Stimulation <b>N. Aljeban</b>	<b>Ms. Norah Aljeban</b> , Saudi Aramco, <b>Saudi Arabia</b>