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Welcome Message

Polymer Engineering & Science International (PESI) Conference 2021

Invitation

Dear Colleagues,

On behalf of the Organizing Committee, it is our great pleasure to invite you to participate in the Polymer Engineering and Science International (PESI) 2021, which will be held in May 30 - June 3, 2021 at Kenting, Taiwan. The conference will take place in the Howard Beach Resort-Kenting inside the Kenting National Park. The park is well known for its tropical climate and sunshine, scenic mountain and beach, and has long been one of the most favorite resort places in Taiwan.

PESI-2021 will bring together the international research communities from various scientific disciplines of polymer engineering and science, to discuss new and exciting advances that involve polymeric materials, techniques and methodologies. Apart from the usual conference activities consisting of plenary and invited lectures, general symposia and poster presentation, there will be a series of Special Symposia focusing on up to date topics of polymer-related techniques and applications. Although an intensive science and technology experience is the driving force of PESI-2021 conference, the social and cultural part of a visit to Taiwan should not be missed. The Organizing Committee is putting in its best effort to organize this event and make it a memorable in one of the most attractive regions of Taiwan-Kenting.

We hope that you will be able to join us at the PESI-2021 conference and have a meaningful as well as an enjoyable time with your colleagues in the field of polymer engineering and sciences. All members of the Organizing Committee of PESI-2021 are looking forward to meeting you at the very beautiful town, Kenting of Taiwan.

Yours sincerely,



Shih-Jung (Sean) Liu
Chairman
Chang Gung University, Taiwan

Conference Committee

Chairman	Liu SJ (Mechanical Engineering, Chang Gung University)
Secretariats	Lee D (Mechanical Engineering, Chang Gung University)
Committee	Chang CY (Mold and Die Engineering, National Kaohsiung University of Sciences and Technology)
	Chen JT (Applied Chemistry, National Chiao Tung University)
	Chiu FC (Chemical and Materials Engineering, Chang Gung University)
	Chung CY (Mechanical Engineering, National Central University)
	Ho RM (Chemical Engineering, National Tsing Hua University)
	Hsu LC (Materials Science and Engineering, National Cheng Kung University)
	Huang CF (Chemical Engineering, National Chung Hsing University)
	Huang CT (Chemical and Materials Engineering, Tamkang University)
	Huang MS (Mechatronics Engineering, National Kaohsiung University of Science and Technology)
	Hwang SJ (Mechanical Engineering, National Cheng Kung University)
	Hwang SS (Mechanical Engineering, Chien Hsin University of Science and Technology)
	Jeng RJ (Polymer Science and Engineering, National Taiwan University)
	Jong WR (Mechanical Engineering, Chung Yuan Christian University)
	Kuo CC (Molecular Science and Engineering, National Taipei University of Technology)
	Kuo SW (Material and Optoelectronic Science, National Sun Yat-Sen University)
	Lai SM (Chemical and Materials Engineering, National Ilan University)
	Lee LT (Materials Science and Engineering, Feng Chia University)
	Liu CL (Materials Science and Engineering, National Taiwan University)
	Liu YL (Chemical Engineering, National Tsing Hua University)
	Shih YF (Applied Chemistry, Chaoyang University of Technology)
	Tseng SC (Mechanical Engineering, National Yunlin University of Science and Technology)
	Tung KL (Chemical Engineering, National Taiwan University)
	Wei PK (Research Center for Applied Sciences, Academia Sinica)
	Wu CM (Materials Science and Engineering, National Taiwan University of Science and Technology)

Symposia

General symposia

- G1. Processing and manufacturing
- G2. Rubber and elastomers
- G3. Polymerization and synthesis
- G4. Polymer blends and alloys
- G5. Polymer composites
- G6. Fiber, membrane and film
- G7. Mixing and compounding
- G8. Modeling and simulation
- G9. Monitoring and characterization
- G10. Rheology and rheometry

Special symposia

- S1. Biomedical materials
- S2. Optical/Electrical applications
- S3. Nanotechnologies and nanomaterials
- S4. Benign polymers
- S5. Food engineering and science
- S6. Other techniques and applications

Plenary Speakers



Covas JA

University of Minho

A study of the printing stage in 3D printing by free form extrusion



Holzer C

Montanuniversität Leoben

Systematic approach to additive manufacturing of implants



Ho RM

National Tsing Hua University

Well-ordered nanonetwork materials from block copolymer templates for metamaterial applications



Hrymak A

Western University

Electrical conductivity of microinjection molded carbon filled polymer nanocomposites



Ito H

Yamagata University

New concept for mechanical strengthening for polymers prepared and controlled by millefeuille structure and kink deformation



Jana SC

University of Akron

Mesoporous macroporous polymer gels and aerogels and their applications

Invited Speakers

Canevarolo Jr SV	Universidade Federal de São Carlos	Understanding the extrusion process by on-line and in-line rheo-optical techniques
Chiu FC	Chang Gung University	Miscible and immiscible polymer blend-based nanocomposites with enhanced physical properties
Hong JS	Seoul National University	Design of electrical conductive PLA composite via self-induced particle aggregation
Jeng RJ	National Taiwan University	Thermoplastic polyurethanes prepared from chemical recycling of polycarbonate
Lamnawar K	Institut national des sciences appliquées de Lyon	Interfacial rheology-dynamics-modelling and processing of multi micro-/nanolayered polymeric systems: from fundamental studies to innovative engineering
Masubuchi Y	Nagoya University	Multi-chain slip-link simulations of elongational rheology of polymers
Pantani R	University of Salerno	Description of morphology evolution in injection molding
Saito T	Tokyo Institute of Technology	Study on thermal resistance at the interface of different polymer materials
Srithep Y	Rajaphat Maha Sarakham University	Injection molding and characterization of polylactide stereocomplex and poly (butylene succinate) blends
Taki K	Kanazawa University	Network structure and mechanical properties of UV curable resin for 3D printing
Wang C	National Cheng Kung University	Some interesting morphologies of electrospun fibers caused by flow-induced phase separation
Yao S	Fukuoka University	Upgrade mechanical recycle process based on self-resilience ability of polymer

Conference Information

Conference venue	Howard Beach Resort, Kenting, Taiwan	
Registration service	Sunday, May 30	14:00-17:30
	Monday, May 31	08:00-17:00
	Tuesday, June 1	08:00-17:00
	Wednesday, June 2	08:00-11:30
Conference badge	Please ensure to wear your badge at all times to enter the meeting rooms. There may also be coupons placed in your badge to exchange for additional purchase.	
Welcome reception	Date	Sunday, May 30
	Time	15:00-18:00
	Location	Conference Hall A
Conference Banquet	Date	Tuesday, June 1
	Time	18:30-21:00
	Location	Caesar Park Hotel

Oral Presentation Schedule

Presentation Type	Total Time	Presentation Time	Q&A
Plenary Talk	40 min.	35 min.	5 min.
Invited Talk	25 min.	20 min.	5 min.
Oral Presentation	15 min.	12 min.	3 min.

Poster Presentation Schedule

Date	Schedule	Time
Tuesday, June 1	Poster Setup	08:00-15:30
	Poster Session	15:45-17:45
	Poster Removal	17:45-18:00

Floor Plan

Program at a Glance

Sunday, May 30		
Time	Venue	Activity
14:00-17:30	B1 Floor	Registration
15:00-18:00	Conference Hall A	Welcome Reception

Monday, May 31	
Venue	Conference Hall B
08:20-08:30	Opening Ceremony
08:30-09:10	Properties of polymeric microparts induced by high shear fields in microinjection molding <u>Andrew N. Hrymak</u> , Musa R. Kamal, Shengtai Zhou, Renze Jiang, Zhongguo Zhao
09:10-09:50	Well-ordered nanonetwork materials from block copolymer templates for metamaterial applications <u>Ho R.-M.</u>
09:50-10:15	Invited Presentations
10:15-10:30	Coffee Break
Venue	Conference Hall B
10:30-10:55	Invited Presentations
10:55-12:10	Oral Presentations
12:10-13:10	Lunch Time
Venue	Conference Hall B
13:10-13:50	New concept for mechanical strengthening for polymers prepared and controlled by millefeuille structure and kink deformation Y. Watanabe, K. Kano, A. Ishigami, S. Nishitsuji, T. Kurose, and <u>Hiroshi Ito</u>
13:50-14:15	Invited Presentations
14:15-14:55	A study of the printing stage in 3D printing by fused filament fabrication S. F. Costa, F.M. Duarte and <u>J.A. Covas</u>
14:55-15:20	Invited Presentations
15:20-15:30	Coffee Break
Venue	Conference Hall B
15:30-15:55	Invited Presentations
15:55-17:55	Oral Presentations

Tuesday, June 1	
Venue	Conference Hall B
08:10-08:50	Mesoporous macroporous polymer gels and aerogels and their applications <u>Sadhan C. Jana</u>
08:50-10:05	Invited Presentations
10:05-10:35	Oral Presentations
10:35-10:50	Coffee Break
Venue	Conference Hall B
10:50-11:15	Invited Presentations
11:15-12:00	Oral Presentations
12:00-13:00	Lunch Time
Venue	Conference Hall B
13:00-13:50	Invited Presentations
13:50-14:30	Systematic approach to additive manufacturing of implants <u>Clemens Holzer</u>
14:30-14:55	Invited Presentations
14:55-15:25	Oral Presentations
15:25-15:45	Coffee Break
Venue	Exhibition Area
15:45-17:45	Poster Presentations
18:30-21:00	Banquet

Wednesday, June 2	
Venue	Conference Hall B
08:30-10:15	Oral Presentations
10:15-10:30	Coffee Break
Venue	Conference Hall B
10:30-11:00	Oral Presentations
11:00-11:15	Closing Ceremony
11:15-14:00	Lunch Time

Monday, May 31	
Venue	Conference Hall B
08:20-08:30	Opening Ceremony
Chair	Huang CF (National Chung Hsing University)
08:30-09:10	#1024 : Properties of polymeric microparts induced by high shear fields in microinjection molding <u>Andrew N. Hrymak</u> , Musa R. Kamal, Shengtai Zhou, Renze Jiang, Zhongguo Zhao
09:10-09:50	#1025 : Well-ordered nanonetwork materials from block copolymer templates for metamaterial applications <u>Ho R.-M.</u>
09:50-10:15	#1023 : Thermoplastic polyurethanes prepared from chemical recycling of polycarbonate <u>Ru-Jong Jeng</u> , Chien-Hsin Wu, Ying-Chi, Huang, Shenghong A. Dai
10:15-10:30	Coffee Break
Venue	Conference Hall B
Chair	Shih YF (Chaoyang University of Technology)
10:30-10:55	#1045 : Multi-chain slip-link simulations of elongational rheology of polymers <u>Y. Masubuchi</u>
10:55-11:10	#1041 : Synthesis and characterization of the microcellular injection molded PLA/spent coffee grounds composites <u>S.S. Hwang</u> , H.M. Li, S.C. Ho, Y.C. Kuo
11:10-11:25	#1103 : What can we learn from DFT and molecular dynamics simulations for designing low Dk/Df polymeric materials? <u>Tzu-Jen Lin</u>
11:25-11:40	#1192 : Synthesis of ABC- and ABA-type Triblock copolymers for the hybridizations with epoxy resins <u>Chih-Feng Huang</u> , Yi-Shen Huang and Yeo-Wan Chiang
11:40-11:55	#1167 : Influence of viscous heating correction and pressure effect on the modeling of polymer melts in capillary rheometry and injection molding process <u>Yu-Ho Wen</u> , Chen-Chieh Wang, Chia-Hsiang Hsu, and Rong-Yeu Chang
11:55-12:10	#1162 : Injection compression molding of nanostructure arrays for multiplex sensing applications K. L. Lee, S. C. Lo and <u>P. K. Wei</u>
12:10-13:10	Lunch Time

Monday, May 31

Venue	Conference Hall B
Chair	Huang CT (Tamkang University)
13:10-13:50	#1184 : New concept for mechanical strengthening for polymers prepared and controlled by millefeuille structure and kink deformation Y. Watanabe, K. Kano, A. Ishigami, S. Nishitsuji, T. Kurose, and <u>Hiroshi Ito</u>
13:50-14:15	#1180 : Study on thermal resistance at the interface of different polymer materials <u>T. Saito</u> , T. Taguchi, R. Higuchi and T. Kawaguchi
14:15-14:55	#1159 : A study of the printing stage in 3D printing by fused filament fabrication S. F. Costa, F.M. Duarte and <u>J.A. Covas</u>
14:55-15:20	#1189 : Interfacial rheology-dynamics-modelling and processing of multi micro-/nanolayered polymeric systems: from fundamental studies to innovative engineering <u>Khalid Lamnawar</u>
15:20-15:30	Coffee Break
Venue	Conference Hall B
Chair	Huang MS (National Kaohsiung University of Science and Technology)
15:30-15:55	#1183 : Some interesting morphologies of electrospun fibers caused by flow-induced phase separation Yu Wang, <u>Chi Wang</u>
15:55-16:10	#1021 : Effect of injection speed on chemical foaming behavior of PP and PS <u>Chen-Yuan Chung</u> and Ming-Chien Lai
16:10-16:25	#1077 : Effect of temperature control on interlayer adhesion of FDM 3D printing poly(lactic acid) <u>W. Prasong</u> , A. Ishigami, S. Thumsorn and H. Ito
16:25-16:40	#1171 : Preparation and characterization of hydrophilic surface with metal oxide nanoparticles/polymer composites <u>Y. Hanzawa</u> , A. Ishigami, H. Koseko, T. Kurose, H. Ito
16:40-16:55	#1174 : Evaluation of higher-order structure and mechanical properties of cellulose nanofibers reinforced biodegradable polymer composites <u>T.Ueda</u> , A.Ishigami, T.Kurose, and H.Ito
16:55-17:10	#1034 : Study on the morphology variation of the core material penetration in co-injection fiber reinforced polypropylene system <u>Kuan-Yu Ko</u> , Chao-Tsai (CT) Huang, Chih-Chung Hsu, You-Sheng Zhou, David Hsu, Rong-Yeu Chang and Shi-Chang Tseng

Monday, May 31

17:10-17:25	#1035 : The flow-fiber coupling behavior and its effect on the dimensional variation of fiber-reinforced plastics (FRP) injection parts <u>Cheng-Hong Lai</u> , Chao-Tsai Huang, Jia-Hao Chu, Wei-Wen Fu and, Sheng-Jye Hwang, Hsin-Shu Peng, Chih-Che Wu, and Chun-I Tu
17:25-17:40	#1039 : Study on the degree of assembly for injected components in a multi-cavity mold system <u>Tsai-Wen Lin</u> , Chao-Tsai (CT) Huang, Wen-Ren Jong and, Shia-Chung Chen
17:40-17:55	#1052 : A physics-informed neural network method for defect identification in polymer composites based on pulsed thermography <u>W.H. Lim</u> and Y. Yao

Tuesday, June 1	
Venue	Conference Hall B
Chair	Hwang SJ (National Cheng Kung University)
08:10-08:50	#1063 : Mesoporous macroporous polymer gels and aerogels and their applications <u>Sadhan C. Jana</u>
08:50-09:15	#1207 : Understanding the extrusion process by in-line rheo-optical techniques <u>S. V. Canevarolo</u>
09:15-09:40	#1190 : Design of electrical conductive PLA composite via self-induced particle aggregation Ji Hwan Kim, <u>Joung Sook Hong</u> , Kyung Hyun Ahn
09:40-10:05	#1182 : A numerical simulation of stereolithography process <u>Kentaro Taki</u>
10:05-10:20	#1178 : Process parameters determination to enhance quality uniformity of molded component based on sensing characteristics <u>J.Y. Chen</u> , P.H. Hung and M.S. Huang
10:20-10:35	#1146 : Adaptive quality monitoring of injection molding process for materials with different viscosity Jia-Chen Fan-Jiang, Chi-Wei, Su, <u>Sheng-Jye Hwang</u> , Huei-Huang Lee, Hsin-Shu Peng and Hsiao-Yeh Chu
10:35-10:50	Coffee Break
Venue	Conference Hall B
Chair	Hwang SS (Chien Hsin University of Science and Technology)
10:50-11:15	#1037 : Miscible and Immiscible Polymer Blend-Based Nanocomposites with Enhanced Physical Properties Kartik Behera, <u>Fang-Chyou Chiu</u>
11:15-11:30	#1032 : Magnetic recyclable self-floating solar light-driven $WO_{2.72}/Fe_3O_4$ nanocomposites immobilized by janus membrane for photocatalysis of inorganic and organic pollutants <u>Keberna Gebeyehu Motora</u> , Chang-Mou Wu and Saba Naseem
11:30-11:45	#1033 : Scalable preparation of ultrathin porous polyurethane membrane based triboelectric nanogenerator for mechanical energy harvesting <u>Gokana Mohana Rani</u> and Chang-Mou Wu
11:45-12:00	#1168 : High-sensitivity strain sensor based on kirigami graphene <u>Yao Lee</u> , Shao-Yang Lu, Chi-Hsien Huang
12:00-13:00	Lunch Time

Tuesday, June 1

Venue	Conference Hall B
Chair	Tseng SC (National Yunlin University of Science and Technology)
13:00-13:25	#1177 : Injection molding and characterization of polylactide stereocomplex and poly(butylene succinate) blends <u>Y. Srithep</u> and D. Pholharn
13:25-13:50	#1186 : Upgrade mechanical recycle process based on the self-resilience ability of the polymer <u>Shigeru. Yao</u>
13:50-14:30	#1061 : Systematic approach to additive manufacturing of implants <u>Clemens Holzer</u>
14:30-14:55	#1062 : Description of morphology evolution in injection molding <u>R. Pantani</u>
14:55-15:10	#1072 : Electrical properties of MoO₃ thin films deposited by superimposed hipims system with different annealing temperatures Sheng-Chi Chen, <u>Chun-Hao Chang</u> , Hui Sun, Rong-Zhi Chen
15:10-15:25	#1073 : Joining capability of Al6063 brazed with Al4047 filler metal based on heat treatment parameters Sheng-Chi Chen, <u>Chung-Hsuan, Yeh</u> , Min-Chen Chuang, Ching-Ming Yang, Tzu-Yang Yeh
15:25-15:45	Coffee Break
Venue	Exhibition Area
15:45-17:45	Poster Presentations
Venue	Caesar Park Hotel
18:30-21:00	Banquet

Wednesday, June 2	
Venue	Conference Hall B
Chair	Chung CY (National Central University)
08:30-08:45	#1102 : Improvement of f-MWCNTs in PAN dialyser membranes: performance and property evaluations <u>Jian-Hong Lin</u> , Ying-Huei Shih, Jia-Horng Lin, Ching-Wen Lou
08:45-09:00	#1104 : Properties and electromagnetic interference shielding effectiveness (EMI SE) of sandwich-structured protective composites <u>P.W. Hsu</u> , P.Y. Hsu, C.W Lou, J.H Lin, C.H Huang
09:00-09:15	#1106 : Modeling of fiber behavior in a twin-screw extrusion process <u>Chen, B.C.</u> , Chen CH, Chau, SW
09:15-09:30	#1111 : 3D Printing continuous fiber-reinforced composites with thermosetting matrix Y.-L. Cheng, <u>C. Li</u> , S.-H. Lin, and Y.-T. Guo
09:30-09:45	#1113 : Multifunctional needle-bonded nonwoven fabrics with recycled nomex[®] selvage: manufacturing parameters and property evaluations <u>P.Y. Hsu</u> , P.W. Hsu, C.W Lou, J.H Lin, C.H Huang
09:45-10:00	#1119 : The role of the third component in ternary indoor organic photovoltaics Yu-Ching Huang, <u>Kang-Wei Chang</u> , Ssu-Yung Chung and Chia-Feng Li
10:00-10:15	#1135 : Optimization of annealing parameters for spray-coated perovskite solar cells Y.C. Huang, <u>C.W. Wu</u> , H.C. Cha
10:15-10:30	Coffee Break
Venue	Conference Hall B
Chair	Lee DM (Chang Gung University)
10:30-10:45	#1137 : Lower dark current and high external quantum efficiency for near-infrared organic photodetectors using a new fullerene acceptor Yu-Ching Huang, <u>Tai-Yung Wang</u> , Zhi-Hao Huang, Zih-Ting Chen, Kun-Mu Lee
10:45-11:00	#1158 : Additive manufacturing of metal material with low power diode laser based SLS 3D printer <u>Chao Yu-deh</u> , Wang Yi Shuan, Jeng-Ywan Jeng
Venue	Conference Hall B
11:00-11:15	Closing Ceremony
11:15-14:00	Lunch Time

Poster Session

Tuesday, June 1

Time: 15:45-17:45

Location: Exhibition Area

Category : G1. Processing and manufacturing

001) #1152 **Preparation of fly ash cenosphere and its applications**
H.L. Tsai, C.W. Lu, X.H. Kuo, H. Yang and Y.C. Lee

002) #1163 **A study of heating efficiency and warpage of liquid silicone rubber injection molded of an U-shaped plate using conformal heating design**
Melsiani Rosdiani Fillipin Saduk, Helmy Dewanto Bryantono, Melsiani, Shi-Chang Tseng

003) #1181 **Preparation of PLA foaming material by using supercritical carbon dioxide**
R. C. Hsu and Y. H. Chen

Category : G5. Polymer composites

004) #1055 **EMI shielding thin film of conductive polymer and magnetic reduced graphene oxide nanosheets**
Chi-Ming Liu, Ting-Yu Liu

005) #1065 **Research on environmentally friendly flame retardant wood plastic composite material**
Y.F. Shih, Y. H. Chen, S. Y. Lai, Y. Q. Ke, Z. T. Chen, Y. X. Chen, S. P. Zang, S. C. Wang

006) #1067 **Discussions on non-isothermal crystallization of ternary biodegradable polymer composites in the presence of functional nucleation agent**
Cheng-Yu Tsai, Yun-Chi Tung, Hsiang-Yun Tseng, and Li-Ting Lee

007) #1083 **Develop of 3D printing photo-cured resin with nano-carbon materials to improve mechanical and thermal properties**
Yao-Sheng Chang and Ting-Yu Liu

008) #1088 **Coating of polymeric layer containing graphene oxide on anode for aprotic lithium-oxygen battery**
Yu-Chih Hsueh, Shing-Jiang Jessie Lue

009) #1089 **Effect of binder on electrode stability and cell performance for direct methanol alkaline fuel cell**
Wei-Hao Chen and Shingjiang Jessie Lue

010) #1109 **Development of room temperature process for CFRP robot arm using additive manufacturing technology**
J.Y. Deng, C.Y. Yu, B.H. Liu, R.C. Luo, Y.L. Cheng

011) #1110	Improving the performance of organic solar cell by commercially available dispersants <u>Yang-Yen Yu</u> , Yan-Cheng Peng, and Ching Tseng
012) #1112	Using green solvent process and no additives in non-fullerene organic solar cells <u>Chao-I Liu</u> , Tzung-Wei Tsai and Yang-Yen Yu
013) #1120	PBI-GO nano-structured polyelectrolyte for direct methanol fuel cell <u>Sz-Chieh Huang</u> , Shingjiang Jessie Lue
014) #1128	Highly sensitive polymer visible photodetector based on citrus pectin through solution processing <u>Ting-Yin Wang</u> , Ya-Lan Hsu, Hong-Bin Chen and Yu-Chi Chang
015) #1153	Dielectric properties of metal multilayer/graphene oxide/nano cellulose composite <u>Hou-Ren Lu</u> , Tsen-Yueh Chu, Chien-Tsung Lai , Chao-Yu Lee
Category : G6. Fiber, membrane and film	
016) #1042	Biocomposites based on agar and cellulose nanofibers prepared from carrot slag <u>Y.F. Shin</u> , W.S. Su and Y. H. Chen
017) #1076	Preparation and characterization of poly (vinyl alcohol)/graphene oxide composite membranes as alkaline fuel cell electrolytes <u>Liang-Hsi Chen</u> , Shi-Yun Chen, Bei-Ni Chen and Shingjiang Jessie Lue
018) #1123	Polysulfone sulfonated graphene nanocomposites for ion exchange membranes of the vanadium redox flow battery <u>Ming-Yen Chien</u> , Chia-Tzu Hsu, Yun-Chih Chao, Chao-Chi Lai and Ting-Yu Liu
Category : G7. Mixing and compounding	
019) #1131	Antibacterial activity of quaternized chitosan modified nanofiber membrane <u>Yang-Jia Hong</u> , Yu-Kaung Chang, Kauai-Hsiang Chen
Category : G8. Modeling and simulation	
020) #1026	A probability model of star-branched polymers formed by polydispersed primary chains <u>L. D. Shiau</u>
021) #1141	Design of advanced sandwich structure for CFRP robot arm using additive manufacturing and finite element analysis <u>C.Y. Yu</u> , J.Y. Deng, B.H. Liu, R.C. Luo, Y.L. Cheng

Category : S1. Biomedical materials

022) #1054 Graphene oxide doped silver nanoparticles for antibacterial activity: the influence of nano spherical and nano prism shape
Truong Thi Tuong Vi, Shingjiang Jessie Lue

023) #1095 Polymeric microtube-array membrane as a porous scaffold for stem cell encapsulation
T.A.T. Nguyen, A. Czosseck, C.C. Chen and D.J. Lundy

Category : S2. Optical/Electrical applications

024) #1038 Oblique-flat-sheet based metamaterial perfect absorber for broad bandwidth and incident angles
Tsung-Yu Huang, Cheng-Yu Lu, Chin-Chien Chung and Jing-Hao Huang

025) #1040 Design a nano-resonators composed of six concentric rings for subwavelength lasing
Tsung-Yu Huang and Jia-Hsin Bai

026) #1047 Non-toxic kesterite solar cells by atomic-layer-deposited wide bandgap (Zn,Sn)O buffer layers
Jing-Jie Che, Pei-Chi Liu, Kuei-Hsien Chen, Li-Chyong Chen and Cheng-Ying Chen

027) #1048 The effect of different annealing conditions on selenium thin-film photovoltaic absorbers
Tzu-Yu Hung, Ting-Wen Lin, Kuei-Hsien Chen, Li-Chyong Chen and Cheng-Ying Chen

028) #1049 Material characterizations on an earth abundant thin-film photovoltaic material: CBTS
Yu-Lin Zhang, Je-Ming Lin, You-Syuan Ye, Kuei-Hsien Chen, Li-Chyong Chen and Cheng-Ying Chen

029) #1078 N-type conjugated polymer provide highly thermally stable organic photovoltaics
C.-P. Chen, Y.-P. Wang, M. H. Elsayed, H.-H. Chou

Category : S3. Nanotechnologies and nanomaterials

030) #1028 Preparation of flexible superamphiphobic film for water energy harvesting
Meng-Hsueh Chuang, Ying-Lin Chen and Meng-Fang Lin

031) #1029 Hollow Nd₂O₃-doped BaTiO₃ nanoparticles for microwave absorption
Meng-Fang Lin and Miao-Chu Hou

032) #1086 Silver nanoparticles/go-pdda/g-C₃N₄ nanosheets for photocatalytic degradation and SERS bio-detection
Guang-Zhi Peng, Ting-Yu Liu, Yuh-Lin Wang

Category : S6. Other techniques and applications

033) #1051 Performance analysis of CH₄/NH₃ blended fuels applied in a micro gas turbine
C. Cheng, D. Chen, H. Y. Shih, S. R. Yao