



## AAAFM - UCLA 2019 Abstract Announcement

(Complete List of Accepted Abstracts for the AAAFM – UCLA 2019)

American Association for Advances in Functional Materials

Serial No:	Symposium	Authors	Title	Mode of Presentation
1	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Chen, Zhao; Haixian, Pan; Guangfeng, Jia; Wenzong, Lu	Preparation of Fluorescent Magnetic Molecularly Imprinted Polymer of Gossypol and Fluorescence Polarization Detection	Invited
2	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Parwez, Khalid	Carbon Nanotubes Reinforced Hydroxyapatite Based Functional Biomaterial for Regenerative Engineering	Oral
3	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Monier, Mohammed	Chiral separation of (±)-methamphetamine racemate using molecularly imprinted sulfonic acid functionalized resin	Poster
4	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Sui, Tan	In situ diagnosis of human enamel demineralisation using advanced time-resolved synchrotron X-ray techniques	Invited
5	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Kapusuz, Derya	Influence of melatonin on sol-to-gel transformation of DNA encapsulating silica: Barrier against ROS damage	Oral
6	Symposium 1: Functional Biomaterials and Biosensors (FBB)	kros, alexander	Zebrafish embryos as a tool to study the in vivo behavior of nanomedicines	Oral



7	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Kao, Ching-Wei, Wu, Min-Hsuan, Liu, Shih-Jung	Analgesics Embedded Biodegradable Nanofibrous Anti-adhesive Films Providing Sustainable Pain Relief for Surgical Wounds	Oral
8	Symposium 1: Functional Biomaterials and Biosensors (FBB)	AL Masry, Waheed, Haider, Sajjad, Haider, Adnan, A. AhmedAli, Fekri, Al-Zeghayer, Yousef	Novel Route for Amine Grafting to Chitosan Electrospun Nanofibers Membrane for the Removal of Copper and Lead ions from aqueous medium	Oral
9	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Mousavi, Seyed Farshid	MicroRNAs and Exosomes in Depression: Potential Diagnostic Biomarkers	Oral
10	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Nasrollahzadeh, Naser, Karami, Peyman, Pioletti, Dominique	Enhanced mechanical and mechanobiological properties of hydrogels by controlling their dissipation sources	Oral
11	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Schmidt, Thorsten L	DNA-assembled Plasmonic Waveguides for Nanoscale Light Propagation to a Fluorescent Nanodiamond	Invited
12	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Neupane, Dharmendra; Bhattarai, Jay; Demchenko, Alexei; Stine, Keith	Recent Applications of Nanoporous Gold to Glycoscience	Poster
13	Symposium 1: Functional Biomaterials and	Jang, Eun-Hye; Chung, Sungwook	Chemically functionalized amorphous silica nanoparticles equipped with uniform nanopores for removing hexavalent	Poster



	Biosensors (FBB)		Chromium ions from wastewater	
14	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Lv, Fengting; Zhou, Lingyun; Liu, Libing; Wang, Shu	In Situ-Induced Multivalent Anticancer Drug Clusters in Cancer Cells for Enhancing Drug Efficacy	Oral
15	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Toker, Sidika Mine	Biocompatibility dependence of metallic biomaterials on microstructural mechanisms	Oral
16	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Liu, Chunxiu	Au nanoparticles-enhanced optical sensor for CRP sandwich detection	Poster
17	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Spokoyny, Alexander	Atomically Precise Hybrid Nanoparticles with Multivalent Capabilities	Oral
18	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Zhong, Chao	Engineering Living Functional Materials with Synthetic Biology	Oral
19	Symposium 1: Functional Biomaterials and Biosensors (FBB)	HU, Jinlian; Venkatesan, Harun; Chen, Jianming; Jiang, Yuanzhang; GU, Lin	Spider Silks: A Source of Inspiration towards Revolutionary Functional Materials	Oral
20	Symposium 1: Functional Biomaterials and	Li, Yan-Hom; Chen, Shao-Chun	Effect of Flexibility on the Microswimmers Made of Functional Fluid	Oral



	Biosensors (FBB)			
21	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Yao, Yao; Ping, Jianfeng; Ying, Yibin	Flexible Biomimetic Sensors for Extracellular Monitoring Based on Freestanding MXene Film with In-situ Growing Noble Metal Nanoparticles	Oral
22	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Zhao, Fengnian; Ping, Jianfeng	A Portable Enzymatic Biosensor Based on Bimetallic Nanoparticles Modified Two-dimensional MXene Nanocarriers for Pesticide Detection	Oral
23	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Zhang, Zhiming; Huang, Chenlu; Zhang, Linhua; Zhu, Dunwan	Dual-responsive polymeric micelles for chemo-photothermal combination therapy	Poster
24	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Huang, Chenlu; Zhang, Zhiming; Zhu, Dunwan; Zhang, Linhua	Bubble-generating polymersomes for synergistic chemo-photothermal tumor therapy	Poster
25	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Alvarez, Noe; Miller, Peter ; Lobo, Rui ; Shanov, Vesselin	Tailoring Electrical Conductivity of Carbon Nanotube Threads During Assembly	Oral
26	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Solberg, Klas; Razavi, Seyed Mohammad Javad; Berto, Filippo	Fatigue assessment of additively manufactured light alloys for biomedical applications	Oral
27	Symposium 1: Functional Biomaterials and	Kim, Hye Jin; Ahn, Hee Ju; Hwang, Kyo Seon	High accurate bio-fluid based electrical biosensor for commercialization	Oral



	Biosensors (FBB)			
28	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Paradee, Nophawan; Sirivat, Anuvat	Gelatin-coated super paramagnetic nanoparticle for cancer drug delivery	Poster
29	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Chatterjee, Shreosi; Das, Surajit	BIOSYNTHESIS OF MAGNETITE NANOPARTICLES USING <i>Aspergillus niger</i> BSC-1 ISOLATED FROM MANGROVE ECOSYSTEM	Poster
30	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Bai, Jing; Wu, Zhen-sen; Ge, Cheng-xian	Stability and dynamics of self-arranged chiral structures in lateral optical binding	Poster
31	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Wu, Zhen-sen; Bai, Jing; Ge, Cheng-xian	Interactions between stratified biological cells optically trapped in high-order Bessel beams	Poster
32	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Song, Kedong; Li, Wenfang; Hu, Xueyan; Li, Liying; Liu, Tianqing	Comparison and evaluation of tissue-engineered 3D tumor model based on different resources of biomaterials	Poster
33	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Mahanty, Shouvik; Bakshi, Madhurima; Ghosh, Somdeep; Gaine, Tanushree; Chatterjee, Shreosi;	Adsorption of Cr(VI) from synthetic industrial waste water by iron oxide nanoparticles synthesized using manglicolous fungi isolated from Indian Sunderbans	Poster



		Bhattachrya, Subarna Das, Surajit; Saha, Papita; Chaudhuri, Punarbasa		
34	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Biswas, Rajib; Boruah, B	Green receptor based qualitative estimation of mercury detection in aqueous solution	Oral
35	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Bhatt, Geeta; Bhattacharya, Shantanu	An inexpensive and robust PCB platform for molecular diagnostics	Oral
36	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Almici, Enrico; Martín-Vañó, Susanna; Montero, Joan; Caballero, David; Noguera, Rosa; Samitier, Josep	Development of 3D engineered cell derived matrices by topological stimuli to assess how matrix anisotropy regulates tumoral cell proliferation and migration	Oral
37	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Moldovan, Marioara; Rosu, Marcela; Prejmerean, Cristina; Pordan, Doina; Popescu, Violeta; Sarosi, Codruta; Carpa, Rahela	Solubility, morphological and antibacterial properties of biomaterials with graphene	Poster
38	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Mazilu, Ionela Amalia ; Moldovan, Marioara; Popescu, George; Moldovan, Andrei;	Influence of various whitening agents upon biomaterials used in dentistry	Poster



		Sarosi, Codruta; Popescu, Violeta		
39	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Casanellas, Ignasi; Lagunas, Anna; Casanova, Sergi; Vida, Yolanda; Pérez-Inestrosa, Ezequiel; Rodríguez- Pereira, Cristina; Magalhaes, Joana; Andrades, José A.; Becerra, José ; Samitier, Josep	Nanopatterned substrates to promote chondrogenesis and tenogenesis in mesenchymal stem cells	Oral
40	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Samadi, Naghme;h; Nafisi, Shohreh; Nafisi, Shohreh; Houshiar, Mahboubeh; Maibach, Howard	Poly (ethylene glycol)- coated zinc oxide Nanoparticles as carriers for topical delivery of tetracycline	Oral
41	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Hayati, Farzad; Ghamsari, Seyed Mehdi	Saving zone of stasis in burn wounds by intracellular delivery of Adenosine triphosphate: An experimental study in rat	Oral
42	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Li, Hui Zhou, Suping Parthasarathy, Ranganathan Ouyang, Lizhi; Yang, Yong; Fish, Tara; Thannhauser, Theodore	Production of Bio-plastics Polyhydroxybutyrate by Bacillus cereus tsu1 Using Canola-based Oil Industry Byproduct	Poster
43	Symposium 1: Functional Biomaterials	Sun, Guoming; Shen, Tom	Pro-regenerative Hydrogel regenerates perfect skin	Oral



	and Biosensors (FBB)			
44	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Travas-Sejdic, Jadranka; Baek, Paul; Wang, Min; Woorhar, Lenny; Barker, David	Polymer Electronic Materials for Biomedical Applications	Oral
45	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Li, Jing; Huang, Yishun; Tian, Leilei	DNA Polymer Synthesized from Rolling Circle Amplification and Its Biomedical Applications	Oral
46	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Collier, Charles Patrick; Najem, Joseph; Taylor, Graham; Weiss, Ryan; Hasan, Md. Sakib; Rose, Garrett; Schuman, Catherine; Belianinov, Alex; Sarles, Stephen Andy	Electrostriction, capacitive susceptibility, and neuromorphic computing in biomembranes	Oral
47	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Kalluri, Ankarao; Caplash, Kanu; Patra, Prabir; Challa, Vijaya Kumar	Protein Quantum Dots (ProQDs): Biofriendly, Bioactive and White Light Emitting Conductive Protein Hydrogel	Poster
48	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Patra, Prabir K; Mohanty, Sujata; Jain, Krishan G; Rawat, Sonali; Debnath, Debika; Kalluri, Ankarao; Dharmadhikari, Bhushan	Polymer-Graphene Nanocomposite Scaffold for the Differentiation of Mesenchymal Stem Cell to Functional Neuron	Oral





49	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Qiu, Wenting; Lu, Zhangdi; Li, Yanxiu; Xiong, Yuan; Rogach, Andrey L.; Nagl, Stefan	Multilayer lab-on-a-chip materials for simultaneous digital microfluidic operation and optical chemical sensing and imaging	Oral
50	Symposium 1: Functional Biomaterials and Biosensors (FBB)	qin, Hu; Xia, Cheng; Yao, Cen; Guanhong, Xu; Fangdi, Wei; Menglan, shi; Xiaoman, Xu; Muhammad, Sohail	Highly sensitive and selective determination of adenosine triphosphate based on fluorescence resonance energy transfer between carbon dots and graphene oxide	Poster
51	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Turchanin, Andrey	A universal biosensing platform based on carbon nanomembrane (CNM)/graphene heterostructures	Oral
52	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Porter, James Marshall	Affinity-Based Culture Platform for Human Hormone Profiling	Poster
53	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Krishnan, Sadagopan; Walgama, Charuksha; Singh, Vini; Premaratne, Gayan; Nerimetla, Rajasekhara; Niroula, Jinesh	Robust Pyrenyl Carbon Nanostructures for Biomarker Sensors and Enzyme Electrocatalysis	Oral
54	Symposium 1: Functional Biomaterials and	Zhu, Chunhong; Zhu, Wanying; zhou, xuemin	A label-free electrochemical aptasensor based on magnetic biocomposites with Pb <sup>2+</sup> -dependent	Poster



	Biosensors (FBB)		DNAzyme for the detection of thrombin	
55	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Yang, Tiantian; Xu, Lulu; Liu, Shengchun; Shen, Yifan; Huang, Lizhen; Zhang, Lutan; Ding, Shijia; Cheng, Wei	Colocalization-triggered DNA nanoassembly for facile and amplified imaging of HER2 dimerization on cancer cell surface in tissue samples	Poster
56	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Ferjaoui, Zied; Bezdetnaya, Lina; Schneider, Raphaël; Mertz, Damien; Begin, Sylvie; Gaffet, Eric; Alem, Halima	Smart superparamagnetic nano-carrier for cancer therapy	Oral
57	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Tian, Yanqing	Fluorescent potassium ion sensors	Oral
58	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Nwamba, Okechukwu Charles; Echeverria, Elena; Mcllroy, David, N.; Shreeve, Jean'ne, M.; Aston, D Eric	Thermally Modified Graphites for Fouling-Resistant Electrodes	Oral
59	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Li, Lan; Li, Jiayi; Guo, Jiamin; Zhang, Huikang; Zhang, Xin; Yin, Caiyun; Wang, Liming;	Nano-patterned Bilineage Scaffolds Coated by Self-assembly Peptide Hydrogels for Simultaneous Osteochondral Regeneration	Oral



		Zhu, Yishen; Yao, Qingqiang		
60	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Yunda, Elena; Quilès, Fabienne Horwat, David Alem, Halima	Bacterial development on functionalized surfaces: from first steps of adhesion to biofilm growth	Oral
61	Symposium 1: Functional Biomaterials and Biosensors (FBB)	LIU, XD; WU, Y	Alginate-based micro/nanoparticles for the delivery of drugs	Invited
62	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Xu, Xiubin; Wu, Xu; Yu, Danfeng	Preparation temperature influence on the properties of hydrogels	Poster
63	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Daskalova, Albena, Bliznakova, Irina; Trifonov, Anton; Angelova, Liliya ; Declercq, Heidi; Buchvarov, Ivan	Controllable patterning designs of biomimetic thin film coatings induced by femtosecond laser texturing for cellular guidance	Poster
64	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Patra, Hirak	Advanced Functional Biomaterials for Programmable Theranostics	Invited
65	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Virtanen, Juhani; Toivanen, Maria; Toimela, Tarja; Heinonen, Tuula; Tuukkanen, Sampo	Direct measurement of human derived cardiomyocyte cluster contraction force using piezoelectric cantilever sensor	Oral
66	Symposium 1: Functional Biomaterials and	González, Itziar; Pinto, Alberto; Acosta, Victor; Earl, Julie	Low-cost microfluidic devices to perform cell manipulation by ultrasounds	Oral



	Biosensors (FBB)			
67	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Awuzie, Chioma Irene; Ucheonye, Emeka Martin	The Applications of Nanotechnology Based Biosensors	Oral
68	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Tran, Hoang Vinh Nguyen, Nghia Duc; Nguyen, Thi Dai Trang; Huynh, Dang Chinh; Le, Hai Dang	Fe <sub>3</sub> O <sub>4</sub> @C core-shell structure: Peroxidase - Like Activity for Development of A Colorimetric Sensor For Glucose Detection. Application to Human Serum	Poster
69	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Zhu, Xiaolu; Wang, Zheng	Self-organizing Behaviors of Murine Myoblasts in the Dextran Hydrogel with Adjustable Configuration	Poster
70	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Xu, Qin; Yang, Xiaoyu; Hu, Xiaoya	Molecular imprinted organometal lead halide perovskites: an effective platform for constructing sensitive and selective photoelectrochemical sensor	Poster
71	Symposium 1: Functional Biomaterials and Biosensors (FBB)	HIRATA, Gustavo A.; Chauhan, Kanchan; Sengar, Prakhar	Rare earth-doped nanosphosphors: Synthesis and novel applications in nanomedicine	Invited
72	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Ali, Isra Hussein; Khalil, Islam Ahmed; El-Sherbiny, Ibrahim Mohamed	Phosphodiesterase Inhibitor and Connective Tissue Stimulating Drugs Loaded Nanofiberous Scaffolds for Enhanced Bone Fracture Healing	Oral



73	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Ta, Hang T.; Arndt, Nina; Wu, Yuao; Xu, Zhi Ping	Activatable Gadolinium-Iron Oxide Nanoparticles for Detection and Discrimination of Thrombosis	Oral
74	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Collart Dutilleul, Pierre-Yves; Fatima, Naveen; Cunin, Frédérique; Cuisinier, Frédéric	Porous silicon for tissue engineering: spectroscopic studies of dissolution	Oral
75	Symposium 1: Functional Biomaterials and Biosensors (FBB)	El-Shafey, El-Said Ibrahim; Al lawati, Haider; Al-Busafi, Saleh; Ali, Syeda nahed furqan	functionalized dehydrated carbons from date palm leaflets for pollution control of organic compounds	Oral
76	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Siddique, Hafiz Faisal; Mazari, Adnan Ahmed; Havelka, Antonin	Assessment of compression socks to different mechanical impacts using cut-strip method	Oral
77	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Wang, Jing; Zhang, Bei; Ren, Yong	Adaptable Surface Plasmon Resonance Polarimetry System with variable levels of sensitivity and tunable dynamic ranges	Poster
78	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Cucchi, Alessandro; Vignudelli, Elisabetta; Emanuele, Randellini; Paolo, Calamai; Giuseppe, Corinaldesi	Three-dimensional Guided Bone Regeneration (GBR): Customized Titanium laser-sintered meshes with and without collagen membranes.	Invited
79	Symposium 1: Functional Biomaterials	Li, Dejun; Li, Li	Effects of Zn and Ag ratio on cell adhesion and antibacterial properties of	Poster



	and Biosensors (FBB)		Zn/Ag co implanted TiN coatings	
80	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Borah, Jyoti Prasad	Nickel-Zinc Ferrite Nanoparticles: A Potential Heat Generating Material for Magnetic Hyperthermia	Invited
81	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Youssef, Hamdy; Alghamdi, Najat	Thermal Influence of Laser Irradiation on Human Breast with Tumor	Oral
82	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Nikam, Dipali Subhash; Pawar, Shivaji H	Highly water-dispersible Betaine-HCl Functionalized Co <sub>0.5</sub> Zn <sub>0.5</sub> Fe <sub>2</sub> O <sub>4</sub> magnetic NPs for hyperthermia application	Invited
83	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Xia, Tian	Use of Polymeric Nanoparticle Platform to induce Treg-mediated Antigen-Specific Immune Tolerance	Invited
84	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Luo, Yuchao	Specific Detection and Visualization of Cyclooxygenase-2 by a Targeted Fluorescent Probe with Conformation-Induced Light Up Activity	Poster
85	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Suleiman, Abdussalam Balarabe; Said, Mansur; Shuaibu Gidado, Abdulkadir	Determination of electronics and molecular structure of Nateglinine antidiabetic drugs using DFT	Oral
86	Symposium 1: Functional Biomaterials and	Tiwari, Rahul; Mohapatra, Debasish; Vyas, Suresh	Cisplatin loaded lectinized liposomes system for nuclear targeting	Poster



	Biosensors (FBB)	Prasad; Soni, Vandana		
87	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Pandey, Pratima	Nano-biomaterials in Antimicrobial Therapy	Invited
88	Symposium 1: Functional Biomaterials and Biosensors (FBB)	wu, zhonghua; xing, xueqing	Metallofullerenol Inhibits Cellular Iron Uptake By Specially Inducing Transferrin Tetramerization	Poster
89	Symposium 1: Functional Biomaterials and Biosensors (FBB)	li, zhihong	Measurement of Protein Size in Concentrated Solutions by Small Angle X-Ray Scattering	Poster
90	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Lin, Fangfei; Yuan, Songmei; Han, Wenliang	A New Antimicrobial Method Against Indwelling Catheter-related Infection	Oral
91	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Li, Min	Frequency Shift Raman-Based Sensing of Serum Biomarkers for Early Diagnosis and Discrimination of Primary Liver Cancers	Invited
92	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Park, Jae Suh; Kim, Soon Woong; Oh, Sung Hwan; Kim, Kwan Young; Park, Yi Se; Lee, Seok Bae; Kim, Dong Hyun	A novel Anti-freezing Biopolymer derived from Antarctic Microorganism as Cryoprotective Agent	Poster
93	Symposium 1: Functional	Cheng, Guosheng	3D graphene scaffolds meets neural stem cells	Invited



	Biomaterials and Biosensors (FBB)			
94	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Wang, Yi	Zein-paclitaxel prodrug nanoparticles for redox-triggered drug delivery and enhanced therapeutic efficiency	Oral
95	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Gutierrez-Sanz, Oscar; M. Andoy, Nesha; S. Filipiak, Marcin; Haustein, Natalie; Tarasov, Alexey	Direct, label-free and rapid transistor-based immunodetection in whole serum	Poster
96	Symposium 1: Functional Biomaterials And Biosensors (FBB)	Kasinathan, Kana, Noluthando; Kulandaiswamy, Arockia Jayalatha; Rayappan, John Bosco Balaguru; Vedamuthu, John Kennedy; Malik, Maaza; Rathnakumar, Sowmya Sri	Stalling Behaviour of Chloride ions: A Non-enzymatic Electrochemical Detection of $\alpha$ -Endosulfan using CuO Nano-interface	Invited
97	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Xiao, Shili; Peng, Qingyan; Tao, Yongzhen; Shi, Xiangyang; Xu, Weilin	pDNA-activated Electrospun PLGA Nanofibrous Scaffolds for Tissue Engineering	Poster
98	Symposium 1: Functional Biomaterials and	Li, Xinghua; Yin, Zhouyang; Wang, Yingying	3D Label-Free Matrix Metalloproteinase-3 Immunosensor Based on Graphene	Poster





	Biosensors (FBB)		Oxide/Polypyrrole-Ionic Liquid Nanocomposite	
99	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Wang, Pan; Yang, Ning; Yuan, Shouqi	Performance Evaluation of Particle Separation Impactor with an Additional Compound Structure	Invited
100	Symposium 1: Functional Biomaterials and Biosensors (FBB)	M. Dominguez, Carmen; Niemeyer, Christof	Origami-based Microfluidic Interface for Cell Signaling	Poster
101	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Hu, Yong	Carbon-Nanotube Reinforcement of DNA-Silica Nanocomposites Yields Programmable, Cell-Instructive Biocoatings	Poster
102	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Schneider, Karl Heinrich; Enayati, Marjan); Rohringer, Sabrina; Grasl, Christian ; Almeria, Chiara ; Walter, Ingrid; Wojta, Johann; Schima, Heinrich; Hallstroem, Seth; Podesser, Bruno; Bergmeister, Helga	In-vitro and in-vivo evaluation of small-diameter nitric oxide-eluting biodegradable vascular grafts	Poster
103	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Kaur, Manjot; Nakamura, Hiroyuki; Kumar, Akshay	Nanostructured boron carbide for cancer treatment by boron neutron capture therapy	Poster



104	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Elçin, Yaşar Murat; Parmaksiz, Mahmut; Vurat, Murat Taner Lalegül-Ülker, Özge; Durkut, Serap Koç-Demir, Aysel; Elçin, Ayşe Eser	Magneto-Sensitive Decellularized Bone Matrix as a Regenerative Biomaterial	Poster
105	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Uribe, Omar; Godinez, R; Morales, J.; Velasco, Myrian; Olayo, R.	Polypyrrole nanoparticles synthesized by plasma as promoters of rat pancreatic islets capsules	Oral
106	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Cardinell, Kirsten Lauren; Gupta, Neeru; Zhou, Xun; Luciani, Paola; Kumaradas, Carl; Yucel, Yeni	A Systematic Approach to Compare Commercial Near-Infrared Dyes for Photoacoustic Imaging	Oral
107	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Chen, Peng; Wang, Chuanqi; Le, Yuan	Dasatinib Nanocrystal and Nanotablets	Poster
108	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Li, Xiaoyan; Peng, Gang; Chen, Xiaojun; Huang, He	Double determination of long noncoding RNAs from lung cancer via multi-amplified electrochemical genosensor at sub-femtomole level	Oral
109	Symposium 1: Functional Biomaterials and	Bertlein, Sarah Brown, Gabriella Lim, Khoon Jüngst, Tomasz Tessmar, Jörg	Thiol-ene Clickable Gelatin as Bioink for Biofabrication: Expanding the Fabrication Window	Oral



	Biosensors (FBB)	Hooper, Gary Woodfield, Tim Groll, Jurgen	through Macromolecular Cross-linkers	
110	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Blohbaum, Julia Berberich, Oliver Hölscher-Doht, Stefanie Albrecht, Krystyna Meffert, Rainer Tessmar, Jorg Blunk, Torsten Groll, Jurgen	Catechol-modified Poly(oxazoline)s with Tunable Degradability Facilitate Cell Invasion and Lateral Cartilage Integration	Poster
111	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Jungst, Tomasz Pennings, Iris Schmitz, Michael Rosenberg, A. J. W. P. Gawlitta, Debby Groll, Jurgen	Orchestrating cellular organization and phenotype in small diameter bi-layered vascular grafts by heterotypic scaffold design	Oral
112	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Shi, Aimin; Liu, Hongzhi; Chen, Qionglin; Wang, Qiang	Novel nanoliposomes for resveratrol through high pressure microfluidization: characterization and stability evaluation	Oral
113	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Basu, Tarakdas; Nandy, Sanchita	Synthesis, Characterization and Anti-Shigellosis Potency of Cu-Ag Bimetallic Nanoparticle	Invited
114	Symposium 1: Functional Biomaterials and Biosensors (FBB)	ESMAEILI, AKBAR	Delivery of tissue plasminogen activator and streptokinase magnetic nanoparticles to target vascular diseases	Poster
115	Symposium 1: Functional Biomaterials and	Školoudík, Lukaš Chrobok, Viktor Kočí, Zuzana Popelář, Jiří Laco, Jan	The transplantation of hBM-MSCs increases bone neo-formation and preserves hearing function	Oral



	Biosensors (FBB)	Filipová, Alžběta Filip, Stanislav	in the treatment of temporal bone defects.	
116	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Adewuyi, Sheriff	Biopolymeric Metal-Azo Nanohybrids as Sensoring Material for Toxic Water-Soluble Anions	Oral
117	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Workie, Yitayal Admassu Imae, Toyoko Krafft, Marie Pierre	Fluorinated poly(ethylene glycol)@graphene oxide platform for nitric oxide gas delivery system and their antibacterial activity	Oral
118	Symposium 1: Functional Biomaterials and Biosensors (FBB)	MohammadiRoo zbahani, Golbarg Chen, Xiaohan Zhang, Youwen H Soflaee, Mona Guan,	Enzyme assisted nanopore detection of Zn(II) ions	Oral
119	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Chimphango, Annie Fabian Abel	Diversifying structural and functional properties hemicelluloses through manipulation of pretreatment, extraction and modification conditions to produce advanced biomaterials and biocomposites	Oral
120	Symposium 1: Functional Biomaterials and Biosensors (FBB)	Saftics, Andras Türk, Barbara Gerecsei, Tamás Sulyok, Attila Nagy, Norbert Szekacs, Inna Kurunczi, Sándor Horvath, Robert	Dextran-based hydrogel layers for label-free biosensing and cell micropatterning	Oral
121	Symposium 2: Functional Composite Materials (FCM)	Dar, Riyaz Ahmad	An electrochemical sensor based on graphene nanosheets-zinc oxide composite coated glassy carbon electrode for the	Oral



			sensitive determination of para-nitrophenol	
122	Symposium 2: Functional Composite Materials (FCM)	Dar, Riyaz Ahmad	Advances in electrochemical sciences: new approaches to environmental applications involving functionalized novel nanomaterials	Invited
123	Symposium 2: Functional Composite Materials (FCM)	Fang, Kaiyue; Fang, Fei; Yang, Wei	Hybridizing SWNT/PMMA/PVDF towards High-Performance Piezoelectric Nanofibers	Oral
124	Symposium 2: Functional Composite Materials (FCM)	Li, Qi	Nanodielectrics for High-Temperature Capacitive Energy Storage	Oral
125	Symposium 2: Functional Composite Materials (FCM)	Kozłowska, Justyna; Prus, Weronika; Stachowiak, Natalia	Modification of sodium alginate/starch films by addition of microspheres	Oral
126	Symposium 2: Functional Composite Materials (FCM)	An, Alicia	Enhanced ammonia recovery from wastewater using a MWCT/Nafion composite membrane	Oral
127	Symposium 2: Functional Composite Materials (FCM)	ALothman, Zeid Abdullah; Yusuf, Kareem	Preparation of novel functionalizable polymeric monoliths for specific capillary liquid chromatographic separations	Poster
128	Symposium 2: Functional Composite Materials (FCM)	Amoresi, Rafael Aparecido Ciola Oliveira, Regiane Almeida, Priscila Zaghete, Maria A Sambrano, Julio Ponce, Miguel Longo, Elson	Growth of nickel oxide on CeO <sub>2</sub> nanoparticles obtained in different morphologies applied as gas sensor	Poster



		Simões, Alexandre Z		
129	Symposium 2: Functional Composite Materials (FCM)	Mahajan, Prasad G. Dige, Nilam C. Vanjare, Balasaheb D. Lee, Ki Hwan	A potential mediator for photodynamic therapy based on Silver nanoparticles functionalized with porphyrin	Poster
130	Symposium 2: Functional Composite Materials (FCM)	Vanjare, Balasaheb D.; Mahajan, Prasad G.; Lee, Ki Hwan	A rhodamine based highly selective and sensitive “off- on” chemosensor for detection of Hg <sup>2+</sup> metal ion in aqueous media	Poster
131	Symposium 2: Functional Composite Materials (FCM)	Zhai, Lei	Polymer Derived Ceramic Composites with Graphene	Oral
132	Symposium 2: Functional Composite Materials (FCM)	Dimitry, Onsy Ishak Mansour, Nahla Ahmed Saad, Azima Latif	Effect of Organic Modifier Loading on Particle Dispersion of Nanocomposites Based on Polyamide 6 and Natural Montmorillonite	Oral
133	Symposium 2: Functional Composite Materials (FCM)	Incedal, Ibrahim; Karabul, Yaşar; Kılıç, Mehmet; İçelli, Orhan; Güven Ozdemir, Zeynep	Negative Dielectric Constant Property of EuSr <sub>2</sub> CaCu <sub>2</sub> O <sub>6.5</sub> Ceramic	Poster
134	Symposium 2: Functional Composite Materials (FCM)	Ozkan, Sermin Ilayda; Erdönmez, Seda; Kılıç, Mehmet; Karabul, Yaşar; İçelli, Orhan; Güven Ozdemir, Zeynep	Synthesis, Structural and Dielectric Characterization of Polyindole-Silver Nano Composites	Poster
135	Symposium 2: Functional Composite	Ongun, Isa Emin Karabul, Yaşar Çağlar, Mustafa Kılıç, Mehmet	Epoxy/WO <sub>3</sub> Nano Composites as an Eco- Friendly Gamma Ray Shielding Materials	Oral



	Materials (FCM)	Güven Ozdemir, Zeynep İçelli, Orhan		
136	Symposium 2: Functional Composite Materials (FCM)	Kutelia, Elguja Bakhtiyarov, Sayavur Okrosashvili, Mikheil Tsurtsunia, Olga Bulia, Boris Bakhtiyarov, Akshin Eristavi, Besik	A Novel Functional Self-Healing Metallic Composite	Oral
137	Symposium 2: Functional Composite Materials (FCM)	Du, Xuemin	Bioinspired composite material-based actuators and their applications	Invited
138	Symposium 2: Functional Composite Materials (FCM)	Zhang, Lidong; Chen, Qing	Hollow hydrogel networks for temperature-controlled water fluidics	Invited
139	Symposium 2: Functional Composite Materials (FCM)	Zheng, Yongmei	Bioinspired wettability surfaces with micro- and nanostructures from design to functions	Invited
140	Symposium 2: Functional Composite Materials (FCM)	Yang, Ming	An Epidermis-like Hierarchical Smart Coating with a Hardness of Tooth Enamel	Oral
141	Symposium 2: Functional Composite Materials (FCM)	Shahzad, Humaira	Selective removal of radioactive cesium in water using magnetic Prussian blue graphene based nanomaterial	Poster
142	Symposium 2: Functional Composite Materials (FCM)	Wang, Feng Ding, Yanfen Zhang, Dongmin Yang, Mingshu	The effect of nanohybrid materials on the pour-point and viscosity depressing of waxy crude oil	Oral



143	Symposium 2: Functional Composite Materials (FCM)	Wang, Fangfang; Feng, Lajun; Lei, Ali	Preparation and properties of an eco-friendly polyurethane conductive composite coating modified with MWCNTs	Oral
144	Symposium 2: Functional Composite Materials (FCM)	Sirohi, Sidharth; Tripathi, Sandeep; Pani, Balaram; Nain, Ratyakshi	Rapid Detection of Hg using Ag Incorporated Recycled Paper	Oral
145	Symposium 2: Functional Composite Materials (FCM)	Farooq, Umar; Sattar, Sadia; Imtiaz, Farhat; Myler, Peter	Low-velocity impact-induced damage and failure prediction of fibrous composite panels using data filtering, load-deflection, and absorbed energy approaches	Oral
146	Symposium 2: Functional Composite Materials (FCM)	Zhai, Zhe; Lei, Ali; Feng, Lajun; wang, Fangfang	Effect of Water Uptake on the Mechanical Properties of Flake Aluminum Powder Filled Epoxy resin Composites	Poster
147	Symposium 2: Functional Composite Materials (FCM)	Saxena, Ankit; Mali, Kiran D.	Vibration Analysis of Functionally Graded Thin Plates with Linearly Varying Thickness using Variational Method	Oral
148	Symposium 2: Functional Composite Materials (FCM)	Gupta, Anju	Hierarchical Porous Graphene/copper composites for Enhanced Phase Change Heat Transfer Applications	Oral
149	Symposium 2: Functional Composite Materials (FCM)	Couto Crisóstomo, Matheus; Gonçalves, Joaquim Carlos; Soares Del Menezzi, Claudio Henrique	Effect of Thermo-Mechanical Densification on Surface Properties of Commercial Oriented Strand Boards	Poster
150	Symposium 2: Functional Composite	Benzerga, Ratiba;	Bio-sourced composites for anechoic chamber absorbers	Oral





	Materials (FCM)	Méjean, Chloé; Sharaiha1, Ala		
151	Symposium 2: Functional Composite Materials (FCM)	Benzerga, Ratiba Méjean, Chloé Pometcu, Laura Badard, Mathieu Sharaiha, Ala Pouliguen, Philippe	Carbon fibers based epoxy foam composites for electromagnetic absorption	Invited
152	Symposium 2: Functional Composite Materials (FCM)	Benzerga, Ratiba Laur, Vincent Lebullenger, Ronan Le Gendre, Laurent Queffelec, Patrick Sharaiha, Ala	Carbon based glass foam composites for high power microwave absorption	Oral
153	Symposium 2: Functional Composite Materials (FCM)	Abteu, Mulat Alubel Boussu, François Bruniaux, Pascal Loghin, Carmen Cristian, Irina Chen, Yan Wang, Lichuan	Three-dimensional (3D) warp interlock p-aramid fabrics for the development of seamless female soft body armour with better flexibility and ballistic impact performance	Oral
154	Symposium 2: Functional Composite Materials (FCM)	Zhao, Tingkai	Facile preparation and high capacitance performance of copper sulfide microspheres as supercapacitor electrode material	Oral
155	Symposium 2: Functional Composite Materials (FCM)	Zhang, Shanju	Aligned carbon nanotube-polymer nanocomposite membranes via liquid crystalline templating for desalination and decontamination	Oral
156	Symposium 2: Functional Composite	Ram, Paras; Walia, Mittu; Paras, Neha	MHD Nanofluid Heat Transfer between Parallel Plates with	Oral



	Materials (FCM)		Thermophoretic Diffusion and Viscous Dissipation	
157	Symposium 2: Functional Composite Materials (FCM)	Zakarian, Dora	Temperature dependence of the modulus of elasticity of materials	Poster
158	Symposium 2: Functional Composite Materials (FCM)	Bao, Dan Qiu, Zhengsong Zhong, Haiyi Zhao, Xin Chen, Ganghua	Preparation and study on core-shell structure composite lost circulation material based on shape memory alloy in drilling engineering	Oral
159	Symposium 2: Functional Composite Materials (FCM)	Jen, Ming-Hwa R.; Guo, Guan-Ting; Wu, Ying-Hui; Chen, Ying-Jing	Fatigue Responses of Ti/APC-2 Nanocomposite Laminates with Inclined Cracks at Elevated Temperature Part I: Experiments	Oral
160	Symposium 2: Functional Composite Materials (FCM)	G, Manasa Mascarenhas, Ronald Jerald Satpati, Ashis K Basavaraja, Basavanakote M Kumar, Sriram	ZnO/G nano composite and CTAB surface modified carbon paste electrode architecture as an electrochemical sensor for the detection of endocrine disruptor Bisphenol F	Oral
161	Symposium 2: Functional Composite Materials (FCM)	Al-Shakarchi, Emad	The Optimum Conditions in Preparation of BaTi <sub>2</sub> O <sub>5</sub> Nanostructure by Hydrothermal Method	Invited
162	Symposium 2: Functional Composite Materials (FCM)	He, Zhiyuan; He, Ximin	Bioinspired Materials for Controlling Ice Nucleation, Growth, and Recrystallization	Oral
163	Symposium 2: Functional Composite Materials (FCM)	Chen, Chiatai Li, Yifan Meshot, Eric Bui, Ngoc Zhu, Rong Herbert, Myles	Stimuli-Responsive Carbon Nanotube Membranes for Chemical Warfare Protection	Oral



		Park, Sei Jin Buchsbaum, Steven Jue, Melinda Wu, Kuang Jen Swager, Timothy M. Fornasiero, Francesco		
164	Symposium 2: Functional Composite Materials (FCM)	Ji, Zhongying Hua, Dechuan Li, Yuandong Wang, Xiaolong	3D printing of shape- morphing architec- tures from bilayer to homogeneous material	Oral
165	Symposium 2: Functional Composite Materials (FCM)	Guo, Zhaoxia; Li, Hansong; Zhang, Qiyan; Zhang, Boyuan; Yu, Jian	Highly efficient conductive networks formed by selective localization of carbon black at the interface of sea-island structured polymer blends	Poster
166	Symposium 2: Functional Composite Materials (FCM)	Shanmuganatha n, Kadiravan Ram, Farsa Yadav, Prashant Ambone, Tushar Kadam, Sandeep	Nanocellulose based Functional Composite Materials	Oral
167	Symposium 2: Functional Composite Materials (FCM)	Yaghoubi, Mahmood; Hormozi, M.; Fosehat, S	Development of nano- structured hybrid hydrophobic-hydrophilic surface to improve condensation heat transfer	Oral
168	Symposium 2: Functional Composite Materials (FCM)	Głuchowski, Wojciech; Rdzawski, Zbigniew; Maleta, Marcin; Domagała- Dubiel, Justyna	Cu-Bi multifiber composite wire	Oral
169	Symposium 2: Functional Composite Materials (FCM)	Zhang, Yufan; Li, Zhong; Zhou, Xin	Zirconium-Bipyridine MOF for the Selective Separation of Propane from Propylene	Oral



170	Symposium 2: Functional Composite Materials (FCM)	Yang, Xingyun Sun, Mo Bian, Yinxu He, Ximin	A Room-temperature High-conductivity Metal Printing Paradigm with Visible-light Projection Lithography	Oral
171	Symposium 2: Functional Composite Materials (FCM)	Nguyen, Ngoc A.; Bowland, Christopher C.; Keum, Jong K.; He, Lilin; Naskar, Amit K.	Multifunctional 3D-printing materials from modified lignins	Oral
172	Symposium 2: Functional Composite Materials (FCM)	Hua, Mutian Choi, Jaeho He, Ximin	Reconfigurable surface for encryption and anti-counterfeiting	Oral
173	Symposium 2: Functional Composite Materials (FCM)	Zhang, Qi Zheng, Ruilin Ding, Jianyong Wei, Wei	Novel glass-in-LuAG ceramic with excellent luminous efficiency and high thermal stability for laser-diode-pumped phosphor	Oral
174	Symposium 2: Functional Composite Materials (FCM)	Phasuksom, Katesara; Sirivat, Anuvat	Graphene Based Materials/Polyindole Composites for Methanol Sensor	Poster
175	Symposium 2: Functional Composite Materials (FCM)	Yuan, Binqin; Li, Hao; Zhou, Xin; Tang, Yuning; Peng, Junjie; Li, Zhong	Room-Temperature Synthesis of novel TED@HKUST-1 with enhanced water vapor stability for CO <sub>2</sub> capture	Oral
176	Symposium 2: Functional Composite Materials (FCM)	Changkhamchom, Sairung; Sirivat, Anuvat	Sulfonated (graphene oxide/Poly(ether ketone ether sulfone)(S-GO/S-PEKES) composite polymer exchange membrane for DMFC	Poster
177	Symposium 2: Functional Composite	Choeichom, Pongpol; Sirivat, Anuvat	Poly(p-phenylene) and its Composites with ZSM-5, BETA, and 13X Zeolites	Poster



	Materials (FCM)		as Selective Sensing Material for Sulfur Dioxide	
178	Symposium 2: Functional Composite Materials (FCM)	Thummarungsan , Natlita; Sirivat, Anuvat	Electro-Responsive Material Based on Multiwall Carbon Nanotube/ Poly(lactic acid) Composites for Using as	Poster
179	Symposium 2: Functional Composite Materials (FCM)	Im, Hyeon-Gyun; Park, Hoy Yul; Kang, Dong Jun	Transparent encapsulation material using methyl-methacryl oligosiloxane nanocomposites for electrochromic devices	Poster
180	Symposium 2: Functional Composite Materials (FCM)	Chowdhury, Aminur Rashid Abdullah, Abu Musa Hussain, Istiak Mao, Yuanbing Danti, Serena Uddin, M. Jasim	Li-ZnO Nanowire/Polymer Nanocomposite Based Piezo-Tribo Hybrid Nanogenerator	Oral
181	Symposium 2: Functional Composite Materials (FCM)	Kang, Dong Jun; Park, Hyo Yul; Im, Hyeon-Gyun	Transparent, thixotropic, and adhesive encapsulation for optoelectronic devices	Poster
182	Symposium 2: Functional Composite Materials (FCM)	Chaudhari, Vikas Vinayak; Dixit, Swadesh Sandesh	Modeling of short fiber reinforced composite using Extended Finite Element Method (XFEM)	Oral
183	Symposium 2: Functional Composite Materials (FCM)	Kwon, Wooteck; Ahn, Su-Bin; Lee, Yoonjoo; Kim, Younghee; Kim, Jung Hyun	SiC-conversion coating prepared from silica sol for improving oxidation resistance of carbon-fiber composites	Poster
184	Symposium 2: Functional Composite Materials (FCM)	Fan, Junmei; Hui, Si; Bailey, Trevor P.; Page, Alexander; Uher, Ctirad; Yuan, Fangli	Ultralow thermal conductivity in graphene-oxide porous ceramics with special saucer structure of graphene aerogels	Oral



185	Symposium 2: Functional Composite Materials (FCM)	Aziz, Fakhra Roslan, Nur Adilah Sulaiman, Khaulah Supangat, Azzuliani	Characterization of coplanar capacitive type humidity sensor fabricated using a composite thin film of PTB7-Th:VOPcPhO	Oral
186	Symposium 2: Functional Composite Materials (FCM)	Abareshi, Afsaneh Houshiar, Mahboubeh Nafisi, Shohreh Nafisi, Shohreh Samadi, Naghmeh	Two –dimensional MoS2 Nanosheets Decorated by Gold Nanorods for Photothermal Therapy	Oral
187	Symposium 2: Functional Composite Materials (FCM)	Alothman, Zeid Abdullah; Wabaidur, Saikh Mohammad	Adsorption, kinetics and thermodynamics studies of removal of atrazine herbicide using composite nanomaterials	Poster
188	Symposium 2: Functional Composite Materials (FCM)	Fono-Tamo, Romeo Sephyrin; Tien-Chien, Jen	First principles calculation of the structure and magnetic ordering in ErF3	Oral
189	Symposium 2: Functional Composite Materials (FCM)	Ghosh, Sandip; Chiang, Wen Cheng; Chattopadhyay, Surojit	Ultrasensitive broadband photodetector using electrostatically conjugated MoS2- upconversion nanoparticles nanocomposite	Oral
190	Symposium 2: Functional Composite Materials (FCM)	LEE, Sang Heon	Electromagnetic properties of YBCO superconducting composite for magnet application	Poster
191	Symposium 2: Functional Composite Materials (FCM)	Łaszcz, Amadeusz; Hasiak, Mariusz; Kaleta, Jerzy	Microstructure, magnetic behavior and nanomechanical characterization of NiMnGa-based multifunctional	Oral



			ferromagnetic shape memory alloys	
192	Symposium 2: Functional Composite Materials (FCM)	Koya, Prabhakara Rao	Temperature Stable Novel Porous Coordination Polymer (PCP) based artificial Lotus Leafs for Applications in Energy and Environment	Oral
193	Symposium 2: Functional Composite Materials (FCM)	Kaluzny, Jaroslaw Kempa, Krzysztof Kulczycki, Andrzej Runka, Tomasz Nowicki, Marek Piasecki, Adam Gapinski, Bartosz Kinal, Grzegorz Stepanenko, Aleksander Gallas, Dawid Merkisz, Jerzy	A novel Carbon Nanotubes based grease formulation and its unique lubricating performance	Oral
194	Symposium 2: Functional Composite Materials (FCM)	Liu, Chuanbei Gao, Jianming Zhao, Yasong Chen, Xuemei	The setting and rheological behavior of gypsum-based composites used for 3D robocasting	Oral
195	Symposium 2: Functional Composite Materials (FCM)	Jahid, Md Anwar; Hu, Jinlian	Nanocomposite membrane for human thermoregulation	Oral
196	Symposium 2: Functional Composite Materials (FCM)	Song, Sinae Choi, Guijun Kim, Moongyu Kim, Heetaik	Release control on the specific surface area of rice husk silica immobilized in polycaprolactone nanosheet by electrospinning.	Poster
197	Symposium 2: Functional	Chen, Jianheng; Lu, Lin;	Developing a multiple-layer functional coating for	Oral



	Composite Materials (FCM)	Zhong, Hong; Ji, Yaxiong	buildings in hot and humid regions to achieve passive cooling and energy saving	
198	Symposium 2: Functional Composite Materials (FCM)	Hussainova, Irina; Saffarshamshirgar, Ali; Ivanov, Roman	Multi-gradient electroconductive alumina	Oral
199	Symposium 2: Functional Composite Materials (FCM)	Domagała-Dubiel, Justyna Janicki, Damian Bilewska, Katarzyna Głuchowski, Wojciech	Microstructure and properties of copper matrix composites fabricated by laser surface alloying	Oral
200	Symposium 2: Functional Composite Materials (FCM)	Fonseca, Jessica de Matos Soares, Lenilton Santos Valencia, German Ayala Campos, Carlos Eduardo Maduro Moreira, Regina FPM Monteiro Fritz, Alcilene Rodrigues	Development and characterization of HPMC-TiO <sub>2</sub> and Gelatin- TiO <sub>2</sub> nanocomposites as ethylene scavengers for climacteric fruit application	Poster
201	Symposium 2: Functional Composite Materials (FCM)	Vieira, Ana Carolina Flôr; Fonseca, Jéssica de Matos Fonseca, Germán Ayala Valencia; Valencia, Germán Ayala; Monteiro Fritz, Alcilene Rodrigues	Antimicrobial activity and ethylene scavenging of food packaging based on hydroxypropyl methylcellulose and silver nanoparticles	Poster
202	Symposium 2: Functional	VISA, Maria	Nanocomposite WO <sub>3</sub> -TiO <sub>2</sub> /fly ash with dual	Oral





	Composite Materials (FCM)		functionality in simultaneous removal of pollutants from wastewater	
203	Symposium 2: Functional Composite Materials (FCM)	Abareshi, Afsaneh; Jamilpanah, Loghman; Houshiar, Mahboubeh	Spinel Ferrites with different Combustion Temperature: A comparison study of Structural and Magnetic Properties	Oral
204	Symposium 2: Functional Composite Materials (FCM)	Muniyandi, Muneeswaran; Akbari Fakhrabadi, Ali	Structural, vibrational and enhanced the magnetoelectric properties of BiFeO <sub>3</sub> -CoFe <sub>2</sub> O <sub>4</sub> nanocomposites	Oral
205	Symposium 2: Functional Composite Materials (FCM)	Ramalingam, Dineshkumar; Sen, Ramkrishna	Design and synthesis of a green, smart and recyclable bionanocomposite for concomitant recovery and disruption of microalgal biomass	Oral
206	Symposium 2: Functional Composite Materials (FCM)	Falcao, Evaristo Alexandre; Capetta, Rodrigo Felipe Carneiro; Botero, Eriton Rodrigo	Synthesis and Characterization of PVDF/KNN composites	Poster
207	Symposium 2: Functional Composite Materials (FCM)	Falcao, Evaristo Alexandre Aguiar, Lais Weber Carvalho, Claudio Teodoro Botero, Eriton Rodrigo Rinaldi, Andreilson Wellington Guo, Ruyan Bhalla, Amar S	Study of the Optical Properties of Neodymium Doped PVDF	Poster
208	Symposium 2: Functional Composite	Dhaoui, Wadia; Ben Ghzaïel, Tayssir;	Polyaniline-barium ferrite composites: An optimization study for high	Oral



	Materials (FCM)	Mazaleyrat, Frédéric	efficiency microwave absorption	
209	Symposium 2: Functional Composite Materials (FCM)	Kim, Cheolgyu; He, Ximin	Modeling of stimuli-responsive hydrogel using FEM simulation	Oral
210	Symposium 2: Functional Composite Materials (FCM)	Xu, Yixuan Kim, Cheolgyu Rico, Rossana Sun, Mo He, Ximin	Multi-responsive Hydrogels as Flexible Strain Sensor and Actuator	Oral
211	Symposium 2: Functional Composite Materials (FCM)	Jung, Dahee Spokoyny, Alexander	Boron-rich Clusters as Molecular Cross-linkers for Hierarchical Hybrid Materials	Oral
212	Symposium 2: Functional Composite Materials (FCM)	Zharov, Ilya	Functional nanoporous materials from assembly of polymer-brush nanoparticles	Oral
213	Symposium 2: Functional Composite Materials (FCM)	Cheng, Xianhua; Yip, Kwok Chuo Willis	Rare Earth Modified Carbon Nanotube-Carbon Fiber Multi-scale Reinforced Polymer Composite	Oral
214	Symposium 2: Functional Composite Materials (FCM)	Klink, Michael John	The characterization and determination of Zinc Oxide, Silver and Silver-Zinc Oxide nanoparticles exposed to extracts of Cotyledon Orbiculata and their antimicrobial activity in wastewater	Oral
215	Symposium 2: Functional Composite Materials (FCM)	Kim, Jae Hyun Park, Dongsung Hwang, Kyo Seon	Size-controlled Polyaniline (PANI) Nanofibers for Biosensor Application	Poster
216	Symposium 2: Functional Composite	Klink, Michael John	The Synthesis and Characterization Cobalt Nanoparticles and their	Poster



	Materials (FCM)		Anti-Microbial Activity against Selected Waterborne Pathogens	
217	Symposium 2: Functional Composite Materials (FCM)	A.N, Nagashree; Vedvyas, Champa	Influence of Soild Natural Esters for use as an Alternate Liquid Dielectric Coolant	Oral
218	Symposium 2: Functional Composite Materials (FCM)	VedVyas, Champa; AN, Nagashree	Breakdown Behaviour of Indigenous Natural Esters as a blend for use as an Ecofriendly Dielectric Coolant	Oral
219	Symposium 2: Functional Composite Materials (FCM)	Du, Shuhu	Self-Assembling Silver Nanoparticles on Surface of Activated Carbon as SERS Substrate for Detection of Formaldehyde	Poster
220	Symposium 2: Functional Composite Materials (FCM)	Kim, Young-Kwan	The nanohybrid fibers composed of TiO <sub>2</sub> nanoparticles and carbon nanotubes for sustainable mechanical properties under harsh conditions	Poster
221	Symposium 2: Functional Composite Materials (FCM)	Pol, Harshawardhan Marathe, Deepti Rokade, Dhammaraj Chougale, Sanket Joshi, Sagar Vaidya, Mayuri	Influence of Melt Blending on Controlling of Defects in Polyolefin Melt Processing	Oral
222	Symposium 2: Functional Composite Materials (FCM)	Wang, Dongfang; Wu, Yongkang; Zhang, Guoping	Superhydrophobic Cementitious Materials	Poster
223	Symposium 2: Functional Composite	Agwuncha, Stephen Owonubi, Shesan	Extraction of Cellulose from Vitellaria paradoxa agro-waste for possible	Oral



	Materials (FCM)	Revaprasadu, Neerish	Water Filtration Polymer Composite preparation	
224	Symposium 2: Functional Composite Materials (FCM)	Salih, Watheq Kareem	Fire resistance, thermal stability and mechanical properties of PVA nanocomposite filled with modified nano Iraqi Ca-bentonite for packaging applications	Oral
225	Symposium 2: Functional Composite Materials (FCM)	Kaczmar, Jacek Wladyslaw; Naplocha, Krzysztof; Dmitruk, Anna; Grzeda, Jakub	The effect of Al-based cellular structure on the thermal performance of the zeolite based hybrid heat accumulator	Oral
226	Symposium 2: Functional Composite Materials (FCM)	Lodhi, Pavitra Devi Kaurav, Netram Choudhary, Kamal Kumar Kuo, Y. K.	Measurement and analysis of thermoelectric properties of FeSe superconductor	Invited
227	Symposium 2: Functional Composite Materials (FCM)	Butt, Ayesha Siddique	Fabrication of Cross-linked Pectin Hydrogel for Control Drug Delivery Application	Poster
228	Symposium 2: Functional Composite Materials (FCM)	Yuan, Chenglong Lou, Zhichao Zhang, Yao Wang, Weikai Yang, Lintian Li, Yanjun	One-pot synthesis of a lightweight effective electromagnetic wave absorber, Fe/Fe <sub>3</sub> O <sub>4</sub> @C, via in situ carbonization of Fe <sub>3</sub> O <sub>4</sub> -lignin framework	Oral
229	Symposium 2: Functional Composite Materials (FCM)	Kuo, Chil-Chyuan; Zhu, Yi-Jun; Wu, Ying-Zhi; You, Zheng-Yan	A cost-effective approach using recycled materials for rapid manufacturing ultra-large injection mold with conformal cooling channels	Oral
230	Symposium 2: Functional Composite	Alduhaish, Osamah Mohammed O	Metal–Organic Framework with Trifluoromethyl Groups for Selective	Poster



	Materials (FCM)		C2H2 and CO2 Adsorption	
231	Symposium 2: Functional Composite Materials (FCM)	Shtein, Michael; Nadiv, Roey; Buzaglo, Matat; Regev, Oren	Enhancing Thermal Conductivity of Polymers	Oral
232	Symposium 2: Functional Composite Materials (FCM)	Birenboim, Matan	Reinforcement and workability aspects of graphene-oxide-reinforced cement nanocomposites	Poster
233	Symposium 2: Functional Composite Materials (FCM)	Guan, Xinchun Zhang, Chenchen Li, Hui Ou, Jinping	Effect of cementitious capillary crystalline waterproofing materials on self-healing behavior of strain hardening cementitious composites	Oral
234	Symposium 2: Functional Composite Materials (FCM)	Meng, Shanyu; Partow, Arianna; Tong, zhaohui	Lignin-based and disulfate-linked aerogel as a selective, controllable, reusable superabsorbent	Oral
235	Symposium 2: Functional Composite Materials (FCM)	Kim, Junhyung Hwang, Yujin Jeong, Sunho Lee, Su Yeon Choi, Youngmin Jung, Sungmook	An elastomer for epidermal electronics with adjustable adhesion force and stretchability obtained via a reverse-micelle-induced process	Poster
236	Symposium 2: Functional Composite Materials (FCM)	Ali, Mohammed	Fabrication and Properties of Porous Alumina Ceramics Using Graphite Waste as a Pore Forming Agent	Oral
237	Symposium 2: Functional Composite Materials (FCM)	Tan, Guolong; Feng, Yuan; Li, Xue; Tewelde, Daniel	Antiferroelectric and Magnetodielectric Coupling Response of La <sub>0.2</sub> Sr <sub>0.7</sub> Fe <sub>12</sub> O <sub>19</sub> Ceramics	Invited
238	Symposium 2: Functional Composite	Fang, Daining	Smart structures and 4D printing	Plenary



	Materials (FCM)			
239	Symposium 2: Functional Composite Materials (FCM)	Hai, Chunxi Qi, Guicai Zhou, Yuan Shen, Yue Sun, Yanxia Dong, Shengde Li, Xiang	Preparation of Uniformly Dispersed Mn-based Oxide Ion Sieves with High Adsorption Capacity and Selectivity for Lithium separation from Brine	Poster
240	Symposium 2: Functional Composite Materials (FCM)	Mu, Xueliang; Liu, Shuai; Chen, Yipei; Wu, Tao	Self-assembly Composites of HKUST-1 MOFs with MoS <sub>2</sub> for CO <sub>2</sub> adsorption	Oral
241	Symposium 2: Functional Composite Materials (FCM)	Bilen, Onur Alkan, Ümit Kiliç, Mehmet Karabul, Yaşar Güven Özdemir, Zeynep	Mechanical and AC Electrical Properties of Low-Density Polyethylene/BiSr <sub>2</sub> CaCu <sub>2</sub> O <sub>6.5</sub> Thick Film Composites	Poster
242	Symposium 2: Functional Composite Materials (FCM)	Boshkov, Nikolai Stoyanov Boshkova, Neli Dimitrova Kamburova, Kamelia Pavlova Tabakova, Nadezhda Vladimirova Radeva, Tsetska Borisova	Hybrid Zn coatings with incorporated modified PANI particles – preparation and corrosion characterization	Oral
243	Symposium 2: Functional Composite Materials (FCM)	Liu, Xiaojing; Lu, Yangcheng	Tailoring emulsion polymerization for high-yield synthesis of Tween 80 stabilized magnetic polystyrene nanocomposite particles	Oral
244	Symposium 2: Functional Composite Materials (FCM)	Arat, Refik	PS/Silica Aerogel Nanofibers Production for Thermal Insulation	Poster



245	Symposium 2: Functional Composite Materials (FCM)	Sburlati, Roberta; Cianci, Roberto	On Hashin's bounds for elastic properties of spherical particle-reinforced composites with graded interphase	Oral
246	Symposium 2: Functional Composite Materials (FCM)	Feng, Keqin; Zhou, Hongling; Liu, Yanfang; Ke, Sixuan	Study on the effect of electric current on the W-Mo-Cu composites rapidly prepared by large current electric field sintering	Oral
247	Symposium 2: Functional Composite Materials (FCM)	XIE, XINYUAN Peng, Jiehui Zheng, Shiqi Cao, Chezheng Lin, Ting-Chiang Xie, Weiguo Li, Xiaochun	Nanoparticles Reinforced Silica Gels: Structure and Properties	Oral
248	Symposium 2: Functional Composite Materials (FCM)	Li, Xiang; Zhou, Yuan; Hai, Chunxi; Ren, Xiufeng; Zeng, Jinbo; Shen, Yue; Sun, Yanxia	Mechanical Properties and Thermal Stability of Basalt Fiber Reinforced Magnesium Oxychloride Cement	Poster
249	Symposium 2: Functional Composite Materials (FCM)	Wu, Xu; Zhang, Yichun	Coatings with crude oil repellency	Oral
250	Symposium 2: Functional Composite Materials (FCM)	Kim, Taehee; Kim, Miri; Lee, Wonjoo; Lim, Choong-Sun; Seo, Bongkuk	The Synthesis of Branched Amines with polyether and the Studies of Physical Properties of Epoxy Composites Including the Amines	Poster
251	Symposium 2: Functional Composite Materials (FCM)	Makhetha, Thollwana; Moutloali, Richard Motlhaletsi	PHOTODEGRADATION OF ORGANIC DYES USING COBALT-BASED METAL ORGANIC FRAMEWORK (ZIF-67) CATALYSTS SUPPORTED ON GRAPHENE OXIDE	Oral



			UNDER SIMULATED SOLAR IRRADIATION	
252	Symposium 2: Functional Composite Materials (FCM)	amin, noorul ghani, usman gul, saeed	oral presentation	Rejected
253	Symposium 2: Functional Composite Materials (FCM)	Tan, Mei Chee Zhao, Xiny Sun, Yang Chen, George He, Chaobin Tan, Dawn	Infrared Emitting Photonic Composites for Polymeric Waveguide Amplification	Oral
254	Symposium 2: Functional Composite Materials (FCM)	Corinaldesi, Valeria; Donnini, Jacopo	Cement-based composites with Short Carbon Fibers for Self Sensing Properties	Oral
255	Symposium 2: Functional Composite Materials (FCM)	Kocich, Radim Kunčická, Lenka Strunz, Pavel Ryukhtin, Vasyl Kempny, Michal Macháčková, Adela	Innovative Cu/Al laminated composite wire conductors: effect of rotary swaging on electric properties and structural characteristics	Oral
256	Symposium 2: Functional Composite Materials (FCM)	Danfeng, Yu Jianjia, Huang Xu, Wu Xiubin, Xu Hui, Yang	Ultra-high flux and efficient oil-water separation via polymer-based electrophoretic deposition	Poster
257	Symposium 2: Functional Composite Materials (FCM)	Steffen, Werner; Lijun, Ye; Fei, Chen; Liu, Jie; Gao, Aiting; Kircher, Gunnar; Mars, Julian; Asadi, Kamal; Mezger, Markus; Kappl, Michael; Wegner, Seraphine;	Responsive Ionogel with Switchable Surface Properties	Oral





		Butt, Hans-Jürgen		
258	Symposium 2: Functional Composite Materials (FCM)	Ye, Xinli Chen, Zhaofeng Zhang, Junxiong ZHou, Qian bo	Three-dimensional reticulation SiC/porous carbon foam aerogel composites for thermal insulation devices	Oral
259	Symposium 2: Functional Composite Materials (FCM)	Yang, Wanmin	Theoretical and numerical calculation of trapped field distribution of single domain GdBCO bulk and ring superconductors by Gd+011 TSIG methods	Oral
260	Symposium 2: Functional Composite Materials (FCM)	Yang, Wanmin	Theoretical and numerical calculation of trapped field distribution of single domain GdBCO bulk and ring superconductors by Gd+011 TSIG methods	Oral
261	Symposium 2: Functional Composite Materials (FCM)	Wu, Cao chen, zhaofeng	Graphene oxide/ phenolic resin nanocomposite fibers with high-strength, towards and dielectric tunable performance	Oral
262	Symposium 2: Functional Composite Materials (FCM)	YOU, Fei ZHANG, Yu WANG, Zhenhua XU, Zhiliang SUN, Wei	Developments of Fiber-reinforced Composites Applied in Wind Turbines and Their Thermal and Fire Safety Issues	Invited
263	Symposium 2: Functional Composite Materials (FCM)	Liu, jie	Elastic Superhydrophobic and Photocatalytically Active Films used as Blood Repellent Dressing	Oral
264	Symposium 2: Functional Composite Materials (FCM)	Rohan, Eduard; Lukeš, Vladimír; Heczko, Jan	Multiscale modelling of Piezoelectric Porous Architectures for design of smeared peristaltic fluid pumps	Oral
265	Symposium 2: Functional Composite	Ma, Yan; Yang, Anxia; Niu, Fenglei; Zhu, Huiping;	Effects of Bi <sub>2</sub> O <sub>3</sub> addition on the Mechanical properties of PbO	Poster



	Materials (FCM)	Liu, Fang; Guo, Zhangpeng	ceramics in Lead-cooled fast reactor	
266	Symposium 2: Functional Composite Materials (FCM)	Fan, Wusheng (1,2); Feng, Ni Chen, Guangming Liang, Lirong Guo, Cun-Yue	Carbon nanotube-based composites and their thermoelectric performance	Invited
267	Symposium 2: Functional Composite Materials (FCM)	Kumar, Pragati Saxena, Nupur	Multifunctional Properties of CdS:SiO <sub>2</sub> Nanocomposite Thin Films	Invited
268	Symposium 2: Functional Composite Materials (FCM)	Yang, Zenghui; Wang, Chao; Wang, Tingmei; Wang, Qihua	Tough and strong thermoset shape memory polyimides	Poster
269	Symposium 2: Functional Composite Materials (FCM)	Sharma, Sumit; Kumar, Pramod; Chandra, Rakesh	Molecular Dynamics Simulation of SiC-Graphene Reinforced Aluminum Hybrid Composites	Oral
270	Symposium 2: Functional Composite Materials (FCM)	Nasar, Gulfam	Magnesium ferrite/polyvinyl alcohol (PVA) nanocomposites: fabrication and characterization	Oral
271	Symposium 2: Functional Composite Materials (FCM)	Tang, Zhichuan Qiu, Zhengsong Zhong, Hanyi Guo, Baoyu Wang, Xudong Kang, Yujie	Enhancing wellbore stability of water-based drilling fluid using a novel catechol-chitosan biopolymer encapsulators	Oral
272	Symposium 2: Functional Composite Materials (FCM)	Stachowiak, Natalia; Kozłowska, Justyna; Kaczmarek, Halina	Eco-friendly composite materials based on biodegradable polymers and surfactants	Poster
273	Symposium 2: Functional	Akinlabi, Basit Akinniyi;	The use of modified cocoa shell in low molecular	Oral



	Composite Materials (FCM)	Akinlabi, Akinola Kehinde; Bello, Olalekan H	weight natural rubber compounding.	
274	Symposium 2: Functional Composite Materials (FCM)	Mohd Sani, Mohd Syahrul Hisyam; Muftah, Fadhluhartini; Osman, Ahmad Rasidi	A Review and Preliminary Study of the Composite Section Incorporated with Cold-formed Steel and Oriented Strand Board	Oral
275	Symposium 2: Functional Composite Materials (FCM)	Wang, Huan	Synthesis and Application of Thermoviscosifying High Molecular Polymer	Poster
276	Symposium 2: Functional Composite Materials (FCM)	Ahmad Saffian, Harmaen Talib, Mohd Aizam Mohamad Asa'ari, Ainun Zuriyati Md Tahir, Paridah Lee, Seng Hua	Mechanical, Thermal and Dielectric Properties of Poly Propylene Blended with Lignocellulosic for Insulating Biocomposites Material	Oral
277	Symposium 2: Functional Composite Materials (FCM)	Lee, Seng Hua; Ahmad Saffian, Harmaen; Md Tahir, Paridah	Physico-mechanical and biological properties of citric acid bonded rubberwood particleboard	Oral
278	Symposium 2: Functional Composite Materials (FCM)	Panwar, Anjali Malik, Vikas Sonnathi, Neeleshwar Bagga, Anjana	Deciphering the Route to Blinking Metal phase of electrical conductivity in touching semiconductor nanocrystals.	Poster
279	Symposium 2: Functional Composite Materials (FCM)	颖, 许	The effect of defect size on the integrity of CFRP-confined concrete column	Oral
280	Symposium 2: Functional	Majumder, Sumit;	Multifunctional Reduced Graphene Oxide (RGO)	Oral



	Composite Materials (FCM)	Satpati, Biswarup; Banerjee, Sangam	Wrapped Circular Au Nanoplatelets: Enhanced Photoluminescence, Surface Enhanced Raman Scattering, Photocatalytic Water Splitting and Non-enzymatic Biosensors	
281	Symposium 2: Functional Composite Materials (FCM)	AIGBODION, VICTOR SUNDAY; Ezema, I.C	Novel Multifunctional PKSAnp/A356 alloy composites Synthesis by DLF-SCM	Oral
282	Symposium 2: Functional Composite Materials (FCM)	Kavousian, Sheeva; Alam, Parvez	Honeycomb structures: how accurate does Nature, and indeed engineering, have to be?	Oral
283	Symposium 2: Functional Composite Materials (FCM)	EIEmbaby, Abeer Nassar, Mohamed	Innovative bioactive resin infiltrant	Oral
284	Symposium 2: Functional Composite Materials (FCM)	Pengbiao, Geng	Transition Metal Sulfides Based on Graphene for Electrochemical Energy Storage	Poster
285	Symposium 2: Functional Composite Materials (FCM)	Ferreira, Paula	Cytocompatible chitosan-based bionanocomposites with antioxidant, electrically-conductive and superparamagnetic properties	Invited
286	Symposium 2: Functional Composite Materials (FCM)	yao, lei; wu, zhonghua	Temperature Dependence Interface Layer Structural Evolution of Composite Films by SAXS	Poster
287	Symposium 2: Functional Composite Materials (FCM)	ZHANG, Junying Zheng, Kaiweng Zou, Qi Yang, Yacheng	The Chromogen, Structure, and Applications of a Photo , pH , thermal , Solvent-,	Oral



		Mao, Yingzhu Cheng, Jue	and Mechanical-Response Epoxy Resin	
288	Symposium 2: Functional Composite Materials (FCM)	CHENG, Jue; LIAN, Qingsong; LI, Kai; ZHANG, Junying	A reliable epoxy-based phase change material: facile preparation, tunable properties, and phase/microphase separation behavior	Oral
289	Symposium 2: Functional Composite Materials (FCM)	Shi, Guopu; Zhang, Liu; Wang, Zhi; Li, Qinggang; Wu, Junyan	Fabrication and mechanical properties of Ti/Al <sub>2</sub> O <sub>3</sub> composites with CeO <sub>2</sub> , Y <sub>2</sub> O <sub>3</sub> , and ZrO <sub>2</sub> doped	Invited
290	Symposium 2: Functional Composite Materials (FCM)	Wang, Jia Chang (1,2); Dommati, Hitesh	Effect of ceramic grain size on fabrication of porous ceramic parts using Solvent Based Slurry Stereolithography	Oral
291	Symposium 2: Functional Composite Materials (FCM)	Chowdhury, Joydeep	Fabrication of SERS active substrates with Langmuir-Blodgett deposition technique	Invited
292	Symposium 2: Functional Composite Materials (FCM)	Saha, Somsubhra; Chowdhury, Joydeep	Self-affine properties of SERS active substrates: Experimental vis-à-vis theoretical investigations	Poster
293	Symposium 2: Functional Composite Materials (FCM)	Waware, Umesh S.; Hamouda, AMS.	Electrodeposition of Cu on Ni-B nanocomposites improves its mechanical properties	Poster
294	Symposium 2: Functional Composite Materials (FCM)	Zeng, Xiaofei; Bao, Jun; Zhou, Shihui	Mono-dispersed Nanoparticle and Its Functional Optical Nanocomposite	Poster
295	Symposium 2: Functional Composite Materials (FCM)	Tamim, Ahmed Mahfuz; Faruque, Mohammad Rashed Iqbal;	Electromagnetic Absorption of SRR Based EF-Structured Meta-Atom for DCS, EESC, 5G, and WiMAX Applications	Invited



		Islam, Mohammad Tariqul		
296	Symposium 2: Functional Composite Materials (FCM)	Tao, Huajie; Luo, Xianfu; Zhou, Hongqing	Influence of ZnO/Yb <sub>2</sub> O <sub>3</sub> doping of (Mg <sub>0.95</sub> Ca <sub>0.05</sub> )TiO <sub>3</sub> ceramics on their sintering characteristics and microwave dielectric properties	Poster
297	Symposium 2: Functional Composite Materials (FCM)	Jiang, Jun	Energy Material Design Based on Electric Dipole Simulations	Oral
298	Symposium 2: Functional Composite Materials (FCM)	Yang, Su-Hua; Hung, Ying-Che	Stable Chromaticity of Red Titanate Phosphors for Sensor and Visualization	Poster
299	Symposium 2: Functional Composite Materials (FCM)	Rawat, Neha Kanwar; Panda, P.K	Microwave synthesized conducting polymer-based green nano composites as smart materials	Oral
300	Symposium 2: Functional Composite Materials (FCM)	PANWAR, ANJALI MALIK, VIKAS SONNATHI, NEELESHWAR BAGGA, ANJANA	Theoretical investigations on Stabilization of thermoelectric figure of merit for Bulk nanostructured PbTe System.	Poster
301	Symposium 2: Functional Composite Materials (FCM)	Sonnathi, Neeleshwar Khasimsaheb, Bayikadi Bathula, Sivaiah Chen, Yang- Yuan Bhattacharya, Sriparna Rao, Apparao M.	Significant Improvement of Thermoelectric properties of PbTe Nanocomposite system in the Medium- Low Temperature Range.	Oral



302	Symposium 2: Functional Composite Materials (FCM)	Sokolov, Victor V.	Wave propagation in magnetic functional fluids	Oral
303	Symposium 2: Functional Composite Materials (FCM)	Verga, Fabrizio Giovanni Ezio Staub, Alexandre Schmid, Manfred Wegener, Konrad	Enhanced processing and material properties for powder based Additive Manufacturing with Lanthanum hexaboride composites	Oral
304	Symposium 2: Functional Composite Materials (FCM)	Dimpe, Mogolodi Kgogobi	Fe <sub>3</sub> O <sub>4</sub> -SiO <sub>2</sub> coated tyre-based activated carbon nanofibers as a nanoadsorbent for ultrasound assisted dispersive solid phase extraction of arsenic, cadmium and thallium in environmental samples	Poster
305	Symposium 2: Functional Composite Materials (FCM)	Zheng, Xiaoyu {Rayne}	Three-dimensional printing of piezoelectric materials with designed anisotropy and directional response	Oral
306	Symposium 2: Functional Composite Materials (FCM)	Prasad, Kamal	Deformation induced energy generation using 0.5(Ba <sub>0.7</sub> Ca <sub>0.3</sub> )TiO <sub>3</sub> -0.5Ba(Zr <sub>0.2</sub> Ti <sub>0.8</sub> )O <sub>3</sub> /PVD F nanocomposites	Oral
307	Symposium 2: Functional Composite Materials (FCM)	Kumar, Akshay; Krishnan, Unni; Kaur, Manjot	MoS <sub>2</sub> based nanocomposites for photocatalytic degradation of industrial dyes	Oral
308	Symposium 2: Functional Composite Materials (FCM)	Shukla, Dr. Manoj Kumar Misra, Mrs Archana Shukla, Mr Moksh Srivastava, Dr.Deepak	Thermal, Mechanical and Chemical Characterization of Nano Composites Prepared from DGEBA Epoxy Matrix and Nano CaCO <sub>3</sub>	Oral



309	Symposium 2: Functional Composite Materials (FCM)	Daoush, Walid Mohamed Rashad Mohamed Alkhuraji, Turki S. Alkameas, Moaz A. Albogmy, Turki S.	Microstructure and Properties of Carbon Short Fibers/Copper Composites Fabricated by Electroless Deposition Followed by Powder Metallurgy Technique	Oral
310	Symposium 2: Functional Composite Materials (FCM)	Jin, Zhihe	Modeling of Infiltration Processing of Interpenetrating Piezoelectric Composites	Oral
311	Symposium 2: Functional Composite Materials (FCM)	Santiago, Diana Hung, Ching- cheh Hurst, Janet Nguyen, Baochau Lizcano, Maricela	Boron nitride nanomaterials modifications to improve nanocomposites preparation	Oral
312	Symposium 2: Functional Composite Materials (FCM)	Papon, Easir Arafat Haque, Anwarul Spear, Scott K.	3D printed CNT and continuous fiber reinforced hybrid composite for multifunctional applications	Oral
313	Symposium 2: Functional Composite Materials (FCM)	XU, Jianhong	Droplet-based Microfluidics for Smart Emulsions and Functional Microparticles	Invited
314	Symposium 2: Functional Composite Materials (FCM)	Zhang, Xiao- Zhang	Eddy Current on Carbon Fiber Composite	Oral
315	Symposium 2: Functional Composite Materials (FCM)	Alonge, Olayiwola; Ramli, Mahyuddin; Awang, Hanizam	IMPACT OF NANO- METAKAOLIN ON PROPERTIES OF CEMENTITIOUS COMPOSITES	Oral





316	Symposium 2: Functional Composite Materials (FCM)	Lu, Shaohu Hu, Xuefeng Qiu, Junwen Quan, Wenjing Min, Xinjie Hu, Yewei Cheng, Suishi Ji, Peng Tian, Renbing Du, Wei Zhang, Wei (1,2)	Enhanced sensing properties of xylene gas sensors based on Sn <sup>2+</sup> - doped NiO nanostructure	Poster
317	Symposium 2: Functional Composite Materials (FCM)	Chen, Sha; Feng, Fan; Li, Sumei	In-Situ synthesis of UiO- 66-NH <sub>2</sub> /sponge and highly efficient adsorption 2, 4- dichlorophenoxyacetic acid in water	Poster
318	Symposium 2: Functional Composite Materials (FCM)	Luo, Shengq Yih; Chung, Yu Hsiang; Wu, Cheng Ru	Effects of Several Fibers on the Friction Performance of Non- asbestos Organic Friction Composites	Poster
319	Symposium 2: Functional Composite Materials (FCM)	Baik, Youl; Kang, Bo Kyeong; Jung, Moo Young; Choi, Yong	FEM Analysis on the Cold Rolled Gd-B-Duplex Stainless Steels	Poster
320	Symposium 2: Functional Composite Materials (FCM)	Li, Xinyong	Relationships Between Crystal, Internal Microstructures, and Physicochemical Properties of Copper-Zinc-Iron Multinary Spinel Hierarchical Nano- microspheres	Oral
321	Symposium 2: Functional Composite Materials (FCM)	KUANR, BIJOY KUMAR	Ni substituted bismuth ferrites; Design and testing of broad-band Microwave Monolithic Filter and phase shifter	Oral



322	Symposium 2: Functional Composite Materials (FCM)	De Rosa, Igor Maria; Xin, Wenbo; Carlson, Larry	Highly conductive carbon nanotube yarns with improved strength	Oral
323	Symposium 2: Functional Composite Materials (FCM)	Islam, Mazhar	Bio-cellulose-chitosan based biomimetic composites for potential application in bone tissue regeneration	Oral
324	Symposium 2: Functional Composite Materials (FCM)	Hou, Yu Qi, Jimei Hu, Jiwei Huang, Fei Ruan, Wenqian Xiang, Yiqiu Wei, Xionghui	Decolorization of Brilliant Green in Aqueous Phase by the Ordered Mesoporous Pd-Fe/RGO Nanocomposites Using an Artificial Intelligence Aided Modeling and Optimization	Oral
325	Symposium 2: Functional Composite Materials (FCM)	Li, Dongfeng Xie, Fei Li, Zhihong	Small angle X-ray scattering study on the fractal structure of solid products of bituminous coal at different carbonization temperatures	Poster
326	Symposium 2: Functional Composite Materials (FCM)	Paszkievicz, Sandra Piesowicz, Elzbieta Irska, Izabela Gawdzinska, Katarzyna Bryll, Katarzyna Kochmanska, Agnieszka Lapis, Agnieszka Sobolewska, Ewa Slaczka, Wojciech	Acrylic based nanocomposites containing hybrid system of mineral nanofillers for dental applications	Oral
327	Symposium 2: Functional Composite	Ni, Shuyu; Jiang, Yan; Yuan, Jialei; Gao, Xumin;	225-nm-thick vertical structure multiple- quantum-well diode	Poster



	Materials (FCM)	Shi, Zheng; wang, yongjin		
328	Symposium 2: Functional Composite Materials (FCM)	Ke, Weidong Wu, Xiuwen (1,2); Zhang, Jinlin	Infrared stealth and phase change microcapsules based on stearic acid and nano-iron	Oral
329	Symposium 3: Functional Catalysis (FC)	Saha, Jony (1,2); T P, Radhakrishnan	Iron-Cerium Based Electrocatalyst for Water Oxidation	Poster
330	Symposium 3: Functional Catalysis (FC)	Wu, Jingjie Zhang, Tianyu Ajayan, Pulickel	Engineering Carbon Topological Nanostructure for Electrocatalysis of Carbon Dioxide Reduction	Oral
331	Symposium 3: Functional Catalysis (FC)	Park, Sungjin	Coordination chemistry of organometallic molecules with carbon-based materials and their catalytic applications	Oral
332	Symposium 3: Functional Catalysis (FC)	Nikitenko, Sergey; Chave, Tony; Le Goff, Xavier	Sonohydrothermal synthesis of noble metal-free Ti@TiO <sub>2</sub> core-shell nanoparticles with advanced photothermal catalytic activity	Oral
333	Symposium 3: Functional Catalysis (FC)	Varkey, Jaya (,1); Antony, Anitta P. A, Ajil	Catalytic activity studies of Metal Nanoparticles supported on a novel functional organic polymer	Oral
334	Symposium 3: Functional Catalysis (FC)	HE, Chun Hu, Lingling Shu, Dong	Self-Stabilized Indirect Z-scheme g-C <sub>3</sub> N <sub>4</sub> /I <sub>3</sub> -BiOI for Highly Efficiently Photocatalytic CH <sub>3</sub> SH Oxidation	Oral
335	Symposium 3: Functional Catalysis (FC)	Muthuchamy, Maruthupandy; Quero, Franck	Fabrication and characterization of chitosan/ferric oxide nanocomposites for photocatalytic degradation of important dye molecules	Poster



336	Symposium 3: Functional Catalysis (FC)	Lee, Ha-Young Zhang, Chunfei (1,2); Shin, Cheol- hwan Yu, Jong-Sung	Graphene-nickel interface- induced dipole layer catalytic mechanism on metal deposition and electrochemical energy harvesting	Oral
337	Symposium 3: Functional Catalysis (FC)	Malardier- Jugroot, Cecile; McTaggart, Matt; Jugroot, Manish	Controlling Thermodynamics and Kinetics at the Nanoscale – Biomimicking using Functional Materials	Oral
338	Symposium 3: Functional Catalysis (FC)	Shi, Zhiming; Wang, Lina; Ma, Rui; Zhang, Xiyu	Adsorption and catalytic behaviors of Fe-doped titania nanotubes treated reductively	Poster
339	Symposium 3: Functional Catalysis (FC)	Yu, Luo; Ba, Xin; Yu, Ying	Copper and Copper Oxides Based Materials for Solar Energy Conversion	Oral
340	Symposium 3: Functional Catalysis (FC)	Wang, Xiaoli	Selective oxidation of toluene with O <sub>2</sub> catalyzed by supported nano- gold catalysts	Oral
341	Symposium 3: Functional Catalysis (FC)	Shahzad, Humaira	A Ni-carbon material derived from Ni-MOF74 for room temperature hydrogen storage	Oral
342	Symposium 3: Functional Catalysis (FC)	Zhu, Ying	Electrochemical Conversion of Energy and Chemicals Using Conductive Nanomaterials and Wettability	Oral
343	Symposium 3: Functional Catalysis (FC)	Pamidimukkala, Padmaja Sudhakar	DNA based magnetically separable Hybrid Catalysts- Characteristics and Potential Applications	Oral
344	Symposium 3: Functional Catalysis (FC)	Chauhan, Pankaj Singh; Bhattacharya, Shantanu	Hemin (Fe+3-porphyrin) anchored V <sub>2</sub> O <sub>5</sub> nanowires for solar light based photocatalytic decolourization of MB dye and Industrial wastewater	Oral



345	Symposium 3: Functional Catalysis (FC)	Paula, Fernando R; Padovani, Guilherme S; Gimenes, Tiago C	Photocatalytic efficiency of PVDF/TiO <sub>2</sub> nanofibers produce by SBS process	Poster
346	Symposium 3: Functional Catalysis (FC)	Stylianou, Kyriakos	Self-healing Catalysis for the Hydrolytic Dehydrogenation of Ammonia Borane	Oral
347	Symposium 3: Functional Catalysis (FC)	Kim, Moongyu Choi, Guijun Song, Sinae Park, Sung Soo Kim, Hee Taik (1,2)	Characterization of Metal- doped Titania nanobeads photocatalyst synthesized by hydrothermal method	Poster
348	Symposium 3: Functional Catalysis (FC)	Aljawfi, Rezaq Naji	The contribution of surface defects on the local atomic structure and photocatalyst properties of Fe: CeO <sub>2</sub> NPs	Oral
349	Symposium 3: Functional Catalysis (FC)	Alegria, Elisabete (1,2); Ribeiro, Ana Kopylovich, Maximilian Pombeiro, Armando	Simple solvent-free preparation of heterometallic composites and their applications in catalysis	Oral
350	Symposium 3: Functional Catalysis (FC)	Singh, Chandra Veer Ghuman, Kulbir Kaur Ozin, Geoffrey A.	Silicon Nanoparticles- based Photocatalysts for Efficient CO <sub>2</sub> Reduction	Oral
351	Symposium 3: Functional Catalysis (FC)	Ayyavu, Thirunarayanan; Soler, Monica; Gracia, Francisco	Nanoporous Metal Organic Frameworks for CO <sub>2</sub> capture and Heterogeneous catalysis	Poster
352	Symposium 3: Functional Catalysis (FC)	Liu, Yangsi	Hydrothermal synthesis of WO <sub>3</sub> nanostructures and their visible-light driven photocatalytic properties	Oral



353	Symposium 3: Functional Catalysis (FC)	Choi, Guijun Song, Sinae Kim, Moongyu Kim, Hee Taik (1,2)	On-site photolysis effect of paper coated by a composite of titanium dioxide and rice husk silica with an enhanced photocatalyst	Poster
354	Symposium 3: Functional Catalysis (FC)	Liu, Chunzhao	Efficient Cota Laccase Immobilization onMagnetic Graphene Oxide Sheets for Enhancing Biocatalysis	Oral
355	Symposium 3: Functional Catalysis (FC)	Guo, Chen	Laccase: large-scale fermentation and direct capture by functional magnetic nanoparticles for enhancing biocatalysis	Oral
356	Symposium 3: Functional Catalysis (FC)	Paz, Yaron; Ben Refael, Alon; Benisti, Itamar	Transient photoinduced phenomena in graphitic carbon nitride as measured at a temporal resolution of a few nanoseconds by step- scan FTIR	Oral
357	Symposium 3: Functional Catalysis (FC)	Qiu, Shujun	Poly(N-vinyl-2- pyrrolidone)-Stabilized Ruthenium Supported on Bamboo Leaf-Derived Porous Carbon for NH <sub>3</sub> BH <sub>3</sub> Hydrolysis	Poster
358	Symposium 3: Functional Catalysis (FC)	Singh, Satya Prakash	Diversity, expression and characteristics of extracellular proteases of Haloalkaliphilic bacteria from the Coastal Gujarat, India	Oral
359	Symposium 3: Functional Catalysis (FC)	Wang, Chengyin; Wang, Sicong; Shen, Chao; Yang, Shengyang	Photocatalytic hydrogen evolution under a broad solar spectrum based on effect between metal and ligand	Poster
360	Symposium 3: Functional Catalysis (FC)	Duan, Chunying; Zhang, Tiexin	Supramolecular Photocatalysis within Confined Environment of Metal-Organic Framework	Invited



361	Symposium 3: Functional Catalysis (FC)	Zhang, Tiexin; Duan, Chunying	Tackling Unusual Selectivity of Photocatalytic Trifluoromethylation for Protection of Metabolic Sites of Drugs by Enzyme- Mimicking Dye-based Metal-Organic Frameworks	Invited
362	Symposium 3: Functional Catalysis (FC)	Liu, Shuai; Mu, Xueliang; Yu, Jiahui; Yang, Gang; Luo, Xiang; Zhao, Haitao; Xu, Mengxia; Wu, Tao	Carbon nitride-support Single Mn atom as catalyst for Mercury removal in flue gas by first-principles calculations	Oral
363	Symposium 3: Functional Catalysis (FC)	Yadav, Om Prakash	Photo-catalytic Removal of Environmental Pollutants Under Solar Radiation Using High Band Gap Semiconductor Nanoparticles	Oral
364	Symposium 3: Functional Catalysis (FC)	Malmir, Masoumeh Sadjadi, Samahe Mommahed Heravi, Majid	Pd nanoparticles immobilized on the poly- dopamine decorated halloysite nanotubes hybridized with N-doped mesoporous carbon sheet: A versatile catalyst for promoting N-arylation reaction	Poster
365	Symposium 3: Functional Catalysis (FC)	Kim, Jinheung	Reduced Graphene Oxide Immobilized with Pyrene- pendant Rhodium Catalyst and Platinum Nanoparticles: Enhanced Hydrogen Photoproduction	Oral
366	Symposium 3: Functional Catalysis (FC)	Shi, Jian-Wen; Ma, Dandan; Zou, Yajun	Promoting efficient spatial charge separation and transfer for enhanced photocatalytic hydrogen	Oral



			production from water splitting	
367	Symposium 3: Functional Catalysis (FC)	Song, Heyuan (1,2); Chen, Jing Jin, Fuxiang Li, Zhen	Novel polymeric acidic ionic liquids as catalysts for the preparation of polyoxymethylene dimethyl ethers	Poster
368	Symposium 3: Functional Catalysis (FC)	Yang, Qiaoqiao (1,2); Li, Zhen Wang, Fang Xia, Chungu	New functionalized ionic liquids derived from nitrogen-bearing heterocyclic compounds	Poster
369	Symposium 3: Functional Catalysis (FC)	Horng, Jao-Jia; Chuang, Hung-Yi	Efficiency and Mechanisms of Mesoporous Iron-Titanium oxides to generate hydroxyl radicals for degradation of Acid Orange 7 Dye	Oral
370	Symposium 3: Functional Catalysis (FC)	Sengottuvelan, Balasubramania n; Tamilselvan, Abiraman; Kannan, Rajavelu; Perumal, Rajakumar	Synthesis and characterization of sub 1 nm poly(acrylic acid) capped copper nanoparticles using high intensity (30 KHz) ultrasound sonication and their catalytic study	Oral
371	Symposium 3: Functional Catalysis (FC)	Kampouri, Stavroula Alina; Stylianou, Kyriakos C.	Concurrent Photocatalytic Hydrogen Generation and Dye Degradation Using MIL-125-NH <sub>2</sub> under Visible Light Irradiation	Oral
372	Symposium 3: Functional Catalysis (FC)	Föhlisch, Alexander (1,2)	Tracing the active atomic sites in photochemistry with soft X-ray resonant inelastic X-ray scattering	Oral
373	Symposium 3: Functional Catalysis (FC)	Ghazzal, Mohamed-Nawfal; Wang, Cong; Remita, Hynd;	Photocatalyst designed in core-shell or three-dimensional nanostructure for enhanced photon-to-	Oral





		Colbeau-Justin, Christophe	conversion efficiency for Hydrogen production	
374	Symposium 3: Functional Catalysis (FC)	shuai, cao	Ultrathin Nanosheet Ni- MOF Assemblies for High- Efficiency Ascorbic Acid Electrocatalysis	Poster
375	Symposium 3: Functional Catalysis (FC)	De Lile, Jeffrey Roshan Son, Young-A Lee, Seung Geol	Density functional theory study on polaron formation of Anatase and Brookite TiO <sub>2</sub> using hybrid functional and DFT+U methods	Poster
376	Symposium 3: Functional Catalysis (FC)	Heo, Gisu Manivannan, Ramalingam Kim, Hyorim Ryu, Ji Won Lee, Seung Geol Son, Young-A	Study on Visible Light Photo-Sensitized Metallo- Porphyrin/TiO <sub>2</sub> and its Photocatalytic Activities	Poster
377	Symposium 3: Functional Catalysis (FC)	Xu, Lu; Bai, Xue; Jin, Pengkang	Facial fabrication of carbon quantum dots (CDs)-modified N-TiO <sub>2</sub> -x nanocomposite for the efficient photoreduction of Cr(VI) under visible light	Oral
378	Symposium 3: Functional Catalysis (FC)	Wang, Jiaqiang; Yang, Yepeng; Li, Yizhou; Jiang, Liang; Wang, Wei	Biotemplated Mesoporous Materials Based Photocatalysis for Water and Wastewater Treatment	Invited
379	Symposium 3: Functional Catalysis (FC)	Yuan, Ching Hung, Chung- Hsuang	Application of N/S doping Graphene/TiO <sub>2</sub> on degradation of Sulfamethoxazole under visible irradiation	Poster
380	Symposium 3: Functional Catalysis (FC)	Yao, Ke-Fu; Chen, Shuang- Qin; Jia, Ji-Li; Tang, Yao; Shao, Yang; Chen, Na	Fe-based amorphous/nanocrystalline alloys with high efficiency in degradation of oze-dye containing wastewater	Oral



381	Symposium 3: Functional Catalysis (FC)	Said, Mansur	Molecular Dynamic Studies on the evolution of [Al] <sub>8</sub> [Cu] <sub>4</sub> [Fe] ] <sub>1</sub> , [Al] <sub>27</sub> [Cu] ] <sub>10</sub> [Fe] <sub>5</sub> and [Al] ] <sub>34</sub> [Cu] <sub>14</sub> [Fe] <sub>7</sub> Icosahedral Quasicrystal using DFT	Rejected
382	Symposium 3: Functional Catalysis (FC)	Dumore, Nilesh S.; Mukhopadhyay, Mausumi	Aqueous Selenium Nanoparticles (ASeNPs) as Antioxidant catalyst	Oral
383	Symposium 3: Functional Catalysis (FC)	Begum, Ameemunisha	Replacing Platinum with a Better Performance For HER by the Metal of Wilkinson's Choice	Invited
384	Symposium 3: Functional Catalysis (FC)	M Heravi, Majid Mohammadi, Leyla Malmir, Masoumeh Sadjadi, Samahe	Palladate Magnetic Carbon Quantum Dot Immobilized on the Hybrid of Cyclodextrin Nanosponges and Bell- pepper Derived Biochar: A versatile Catalyst for Promoting Hydrogenation Reaction	Poster
385	Symposium 3: Functional Catalysis (FC)	Chang, Jen-Ray Chen, Chun-Hao Hsieh, Chu-Chin	Research of the Pollution Control Technology of the Particulate Matter for Diesel Vehicle	Oral
386	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	chang, zheng	Zinc ferrum energy storage chemistries with high efficiency and long cycling life	Poster
387	Symposium 4: Functional Materials for Energy Storage and Conversion	Huang, Bolong	Probing oxide-ion conduction in low- temperature SOFCs	Invited



	Devices (FESC)			
388	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Huang, Bolong	Intrinsic energy conversions for photon- generation in piezo- phototronic materials: A case study on alkaline niobates	Invited
389	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	SEKAR, PADMAPRIYA; VENKATACHAL AM, SUDHA; SESHADRI, HARINIPRIYA	Inorganic Mineral Doped Polypyrrole for Hydrogen Storage in Alkaline Medium	Oral
390	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Tian, Hongwei Lang, Xueqin Nan, Haoshan Hu, Xiaoying	LaMnO <sub>3</sub> @NiCo <sub>2</sub> O <sub>4</sub> Nanoarchitecture for High Performance Supercapacitors	Oral
391	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Han, Hongxian	Stable Potential Window of Transition Metal Oxides for Efficient and Stable Oxygen Evolution Reactions in Acidic Electrolyte	Oral
392	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Averbukh, Moshe	Theoretical Description of Carbon Felt Electrical Resistance under Squeezing	Oral



393	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Wang, Chenchen; Zhang, Jinxi; Gong, Shaobo; Ren, Kailiang	Significantly Enhanced Breakdown Field for Core-shell Structured Poly(vinylidene fluoride-hexafluoropropylene)/TiO <sub>2</sub> Nanocomposites for Ultra-high Energy Density Capacitor Applications	Oral
394	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Khan, Muhammad S Ashanul Haque, Ashanul Al-Balushi, Rayya A Al-Busaidi, Idris J	Poly-ynes and Poly(metalla-ynes) for Opto-Electronic (O-E) Applications	Oral
395	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Peng, Tianyou; Wang, Jinming; Liu, Dong; Wu, Chun	Enabling Low Energy Photons Harvesting for Efficient H <sub>2</sub> Production Employing PbS Nanocrystals Modified Anatase TiO <sub>2</sub> Microspheres	Oral
396	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Dong, Renfeng Ren, Biye	Glucose-Fuelled Photocatalytic Micromotors	Poster
397	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Zhang, Lili Xu, Yongshuai Ding, Weipu Zhou, Shouyong Zhong, Hui Zhao, Yijiang Wang, Xin	Synthesis of nano-Ag-assisted attapulgite/g-C <sub>3</sub> N <sub>4</sub> composites with superior visible light photocatalytic performance	Oral
398	Symposium 4: Functional Materials for	Zou, Yongjin; Xiang, Culi	Doped porous carbon for high performance supercapacitors	Poster



	Energy Storage and Conversion Devices (FESC)			
399	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Kunze, Frederik Schnurre, Sophie Huelser, Tim Wiggers, Hartmut	Synthesis of Nanomaterials for Energy Applications on the pilot-plant scale: Energy Storage	Oral
400	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Nava, Giorgio; Schwan, Joseph; Mangolini, Lorenzo	A simple route for the synthesis of high-quality silicon-carbon composites for lithium-ion batteries	Oral
401	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Liu, John S.; Ho, Mei Hsiu-Ching	An Overview of Research on Lithium Iron Phosphate Battery	Oral
402	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	HADJAB, Moufdi	Prediction for optoelectronics properties of chalcopyrite's II-IV-V <sub>2</sub> via mBJ approach: application in thin films solar cells	Poster
403	Symposium 4: Functional Materials for Energy Storage and Conversion	Zangina, Tasiu (1,2); Hassan, Jumiah (2,3); Syahidah Azis, Raba'ah (2,3);	Structural, Thermal Properties and Electrical Conductivity of Al Substitution LiHf <sub>2</sub> (PO <sub>4</sub> ) <sub>3</sub> NASICON-type Ionic Conductor	Oral



	Devices (FESC)	Amin Matori, Khamirul (2,3); Musa, Makiyyu Abdullahi		
404	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Khakpour, Iman Rabiei Baboukani, Amin Allagui, Anis Wang, Chunlei	Electrochemical Characterization of Bipolar Electrochemically Exfoliated Graphene	Oral
405	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Rodríguez, Juan Ignacio Goetz, Andreas Trujillo-Gonzalez, Daniel Eduardo Castillo-Alvarado, Fray de Landa	Van der Waals effects on the Optical and Charge Transfer Properties in Organic Photovoltaics	Oral
406	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Sun, Chunwen	Solid-State Li/Na Batteries and Self-Powered Systems	Oral
407	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Sibari, Anass Kerrami, Zineb Kara, Abdelkader Hamedoun, Mohemmed Benyoussef, Abdelilah (3,4); Mounkachi, Omar Benaissa, Mohammed	Adsorption and diffusion on a phosphorene monolayer: a DFT study	Oral
408	Symposium 4: Functional	Li, Lihong	Synthesis of One-dimensional multi-Niobate	Oral



	Materials for Energy Storage and Conversion Devices (FESC)		composited and their Application of Flexible Piezoelectric Films	
409	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Sukumaran, GOPUKUMAR	Newer Materials for Futuristic Energy Storage Devices	Invited
410	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Shimizu, Jun; Ramaswamy, Shreeharsha; Choi, Junho	Study on amorphous carbon coatings as a dielectric material for triboelectric nanogenerator	Poster
411	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Ramrakhiani, Meera Dubey, Swati Kushwaha, Kamal	Cd <sub>1-x</sub> Zn <sub>x</sub> Se/PVA Nanocomposite Functional Material for Energy Conversion Device	Invited
412	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Jiang, Chengmei; Ping, Jianfeng	All-Electrospun Flexible Triboelectric Nanogenerator Based on Metallic MXenes Nanosheets	Oral
413	Symposium 4: Functional Materials for Energy Storage and	Chen, Qiliang (1,3); Nie, Yi (1,2); Liu, Yanxia (1,2); Ren, Baozeng	Core-shell structure of Si@C coated MCMB as high-performance anode materials for lithium-ion batteries	Poster



	Conversion Devices (FESC)			
414	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Bai, Yang	A multi-functional photo-ferroelectric ceramic for multi-source energy harvesting and sensing with only one component	Oral
415	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Wang, Fu-Ming	Quenching cathode electrolyte interphase on Ni-rich cathode materials for preventing short circuit problem in lithium ion battery	Oral
416	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Ihm, Yungok Cooper, Valentino Vlcek, Lukas Canepa, Pieremanuele Thonhauser, Timo Shim, Ji Hoon Morris, James	Continuum model for gas storage in nanoporous materials	Oral
417	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	LEE, SEUNGBOK	High-performance nanofibrous LaCoO <sub>3</sub> perovskite cathode for solid oxide fuel cells fabricated via chemically assisted electrodeposition	Poster
418	Symposium 4: Functional Materials for Energy Storage and Conversion	Kwok, Yu Ho, Holly Wang, Yifei Zhang, Yingguang Zhang, Huimin	Fuel Breathing Microfluidic fuel cell: fuel solubility effect to the anode selection	Oral





	Devices (FESC)	Leung, Yiu Cheong, Dennis		
419	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Gaur, Anurag; Sharma, Meenu	Fabrication of Zn <sub>1-x</sub> Cu <sub>x</sub> Co <sub>2</sub> O <sub>4</sub> nanostructured based High-Performance symmetric supercapacitors	Oral
420	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Kim, Yee-Seul; Makivic, Nikolina; Limoges, Benoît; Balland, Véronique	Investigating coupled Electron-Proton storage at mesoporous metal oxide films under mild aqueous conditions	Oral
421	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Chong, Baohe Zhu, Wen (1,2)	Mushroom-like structural CdSe/TiO <sub>2</sub> Heteronanorods for enhancing light absorption and application in photoelectrochemical cell	Poster
422	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Sundriyal, Poonam; Bhattacharya, Shantanu	Inkjet printing-assisted growth of Ni <sub>2</sub> CO <sub>3</sub> nano-rods over fabric substrates for flexible and wearable supercapacitor applications	Oral
423	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	BERA, ABHIJIT	A Solvent-less Solid State Grinding Method for the Synthesis of Dispersible Semiconducting Bimetallic Sulfide (Ternary) Nanocrystals	Poster



424	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Thirumurugan, Arun Akbari-Fakhranadi, Ali K, Prabakaran	Carbon modified Iron oxide magnetic nanoparticles - negative electrode material for supercapacitor applications	Oral
425	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Li, Gang Qin, Pingli Yang, Guang Singh, Mriganka (1,2); Chu, Chih-Wei	Interface Tuning in Solution processed Organic and Hybrid Perovskite Solar Cells	Oral
426	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	HALDER, ADITI; Sharma, Lalita	Plasma engineered 2D-MoS2 nano flowers decorated on Reduced graphene sheets for Hydrogen Evolution	Oral
427	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	VIVAS, LEONARDO CORNEJO, ADRIAN JARA SINGH, DINESH PRATAP	Graphene Based Green Supercapacitor for Energy Storage	Oral
428	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Mukherjee, Sankha; Kavalsky, Lance; Chattopadhyay, Kinnor; Singh, Chandra Veer	Blue Phosphorene as a cathode in Li-S batteries	Oral
429	Symposium 4: Functional Materials for	Shu, Dong Cheng, Honghong	Supramolecular Self-assembly Promoted Porous N,P-Codoped	Oral



	Energy Storage and Conversion Devices (FESC)	Zhou, Xiaoping He, Chun	Reduced Graphene Oxide as a High Performance Electrode Material for Supercapacitors	
430	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Hussain, Istiak; Jaksik, Jared; Chowdhury, Aminur Rashid; Uddin, M. Jasim	Carbon Nanotube Yarn Based Three Dimensional Photovoltaic Microwires	Oral
431	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	He, Feng	Chlorination: A Facile Method for Efficient Solar Conversion	Oral
432	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	ZHAROV, ILYA	Fuel Cell and Lithium Battery Membranes from the Assembly of "Hairy" Nanoparticles	Oral
433	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Vasileska, Dragica Shaik, Abdul Brinkman, Daniel Ringhofer, Christian	A Unified 2D Solver for Modeling Carrier and Defect Transport in CdTe Solar Cells	Invited
434	Symposium 4: Functional Materials for Energy Storage and Conversion	Jeon, Jun Woo (1,2); Kim, Dong-Min Kim, Minsu Kim, Yong Seok Lee, Jong-Chan	Carbon-sulfur composites derived from polymers of intrinsic microporosity for RT Na-S rechargeable batteries	Poster



	Devices (FESC)	Lee, Kyu Tae Kim, Byoung Gak		
435	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Kim, Byoung Gak; Jeon, Jun Woo; Han, Jae Hee; Kim, Minsu; Kim, Yong Seok; Kim, Tae-Ho	A Hierarchically Structured Carbon Electrodes Based on Intrinsically Microporous Polymer (PIM-1) Matrix for supercapacitor	Poster
436	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Fujimori, Hirotaka Kawanishi, Ippei Matsushita, Nobuhiro	Structural Chemistry Study on Strontium Tantalate Photocatalysts for Their Water-Splitting Properties: High-Temperature Ultraviolet Raman Spectroscopy	Oral
437	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Kawanishi, Ippei Fujimori, Hirotaka Yashima, Masatomo	Structural Chemistry Study on Strontium Tantalate Photocatalysts for Their Water-Splitting Properties: Synchrotron X-ray Diffraction and Neutron Diffraction	Oral
438	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Li, Qiang; Zhuo, Fangping; Ji, Yongjie	Energy harvesting properties and device of PLZST antiferroelectric single crystal	Oral
439	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Winkler, Krzysztof; Wysocka-Zolopa, Monika; Goclon, Jakub	Polypyrrole Nanoparticles Doped with Fullerene and Fullerene/Pd Coordination Polymer Uniformly Distributed in the Polymeric Phase	Oral



440	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Musyoka, Nicholas; Ren, Jianwei; Langmi, Henrietta; Mathe, Mkhulu	Holistic approach for low-cost synthesis of Fe-based Metal-organic frameworks (MOFs) using Fe derived from acid mine drainage and PET-derived organic linker	Oral
441	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	aminirastabi, habibollah yu, yuxi xue, hao Xie, Rong Jun V.Mitic, Vojislav	Preparation Nano powder perovskite ceramics and sintering with SPS technique	Poster
442	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Zatsepin, Anatoly; Kuznetsova, Yulia; Rychkov, Vladimir; Mashkovtsev, Maxim	Functional materials based on Gd <sub>2</sub> O <sub>3</sub> nanoparticles for UV, VIS and IR-conversion	Oral
443	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Koops, Hans Wilfried Peter	Nanogranular Compound Material Layers Serve as Storage for Infra-Red to Ultra-Violet Photons for Energy Supply of Electric Machines	Oral
444	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Saruhan-Brings, Bilge Rana, Masud Petersen, Jan Geier, Sebastian	Mesoporous Electrodes and Polymer supported Electrolytes for efficiency of Electrochemical Energy Storage Devices	Oral
445	Symposium 4: Functional Materials for	Chu, Hailiang	Facile Synthesis of Li <sub>1.2</sub> Mn <sub>0.6</sub> Ni <sub>0.2</sub> O <sub>2</sub> with 3D Porous Hierarchical	Poster



	Energy Storage and Conversion Devices (FESC)		Micro/nanostructure by One-step Solvothermal Route	
446	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Chen, Yang-Yuan Wei, Pai-Chun (1,2); Chen, Cheng-Lung	Thermoelectric properties of Ge <sub>1-x</sub> Bi <sub>x</sub> Te crystals	Poster
447	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Matsumoto, Futoshi Ando, Fuma Gunji, Takao Tanabe, Toyokazu Ohsaka, Takeo	Relationship between ORR Activity and d-band Center of Pt and Pt-based Alloy Nanoparticle Deposited on Metal Oxide Support Materials	Poster
448	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Liu, Huifang (1,2); Wei, Linru Cong, Chen Ma, Kai	A New Continuous Resonant Vibration Harvester Using Fe-Ga Alloy Film For Harvesting Instantaneous Vibration Energy	Oral
449	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Kim, Dongseob Lee, Sangmin	Sustainable energy harvesting technology based on triboelectric nanogenerators and loss-energy harvesting system	Poster
450	Symposium 4: Functional Materials for Energy Storage and Conversion	Zhao, Yaping; Tan, Huijun	Layer-by-layer fabrication of multilayer hybrids composed of graphene/polyaniline nanofiber for high-energy	Oral



	Devices (FESC)		electrode materials for supercapacitors	
451	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	CHAND, PRAKASH Joshi, Aman Singh, Vishal	Microwave-Assisted Synthesis of BiPO <sub>4</sub> Nanostructures for Supercapacitor Applications	Oral
452	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	IN, SU-IL	Photoconversion of CO <sub>2</sub> : Controllable Transition from C <sub>1</sub> to C <sub>2</sub> Products	Invited
453	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Luo, Quanshun Yang, Shicai Mei, Haijuan (1,3); Deng, Peng	Using pulsed plasma nitriding to improve the conductivity property of SOFC interconnect made from ferritic FeCr steels	Oral
454	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Zhou, Yuan; Dong, Shengde; Hai, Chunxi	Solvothermal synthesis of Li(Ni <sub>0.6</sub> Co <sub>0.2</sub> Mn <sub>0.2</sub> ) <sub>x</sub> Cd <sub>1-x</sub> O <sub>2</sub> cathode materials with excellent electrochemical performance	Poster
455	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Dong, Shengde; Hai, Chunxi; Zhou, Yuan	Ultrathin CeO <sub>2</sub> coating for improved cycling and rate performance of Ni-rich layered LiNi <sub>0.7</sub> Co <sub>0.2</sub> Mn <sub>0.1</sub> O <sub>2</sub> cathode materials	Poster



456	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Sun, Yanxia; Hai, Chunxi; Shen, Yue; Li, Xiang; Dong, Shengde; Zhou, Yuan	Effect of Na and Mg co-doping on Electrochemical Performance of Ni-rich $\text{LiNi}_{0.8}\text{Co}_{0.1}\text{Mn}_{0.1}\text{O}_2$ Cathode Material for Lithium Ion Battery	Poster
457	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Ouyang, Gang; Li, Guofei	Curvature-dependent band engineering and piezoelectric properties in bent ZnO nanowires	Oral
458	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Luo, Zheng; Yuan, Bin	A novel 3D submicro-nano bimodal porous $\beta$ -CuZnAl shape memory alloy current collector for binder-free lithium ion batteries	Oral
459	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Chen, Tiehong	Insight into the Synergistic Effect between C-S and Fe-N Sites for Oxygen Reduction Reaction in Alkaline and Acidic Media	Poster
460	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Sun, Zhouting; Xie, Chong; Shen, Fei; Niu, Chunming; Han, Xiaogang	Double-Walled Carbon Nanotubes Used for Enhanced Lithium-Sulfur Batteries	Poster
461	Symposium 4: Functional Materials for	Manan, Abdul	Physics of the dielectric properties of microwave	Oral





	Energy Storage and Conversion Devices (FESC)		and millimeterwave ceramics	
462	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Igor Simplicio, Mokem Fokou clémence, NONO Martin, Siewe Siewe Clément, Tchawoua	Stochastic resonance and time-delayed feedback control of nonlinear electromechanical energy harvester under random excitation	Poster
463	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Mascarenhas, David; Kshirsagar, Bhakti; Shah, Vaishali	Optical properties of site specific S and Se doping in GaNbO4	Invited
464	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Yu, Tai-Ho; Lu, Tung-Che	Contact force analysis of a circular cylindrical wedge wave ultrasonic motor	Poster
465	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Wu, Gwomei; Lee, J.H.; Lee, C.H.	Investigation of nanostructured thin films based on water soluble precursors for perovskite solar cells	Poster
466	Symposium 4: Functional Materials for Energy Storage and Conversion	Yesengulov, Dias Temirov, Erbol Lamonov, Alexander Sataeva, Gulzipa	High Voltage Energy Storage Device	Poster



	Devices (FESC)	Myrzakhmet, Marat		
467	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Podila, Ramakrishna; Wang, Chengxin; Lu, Bingan; Rao, Apparao	Beyond lithium ion batteries – Opportunities and challenges	Oral
468	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Ren, Yong; Wang, Jing	Needle based microfluidic formation of double emulsion structure encapsulating multiple cores	Poster
469	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Fan, Le-Qing; Pan, Fei; Wu, Ji-Huai	Synthesis of CuCo <sub>2</sub> S <sub>4</sub> /MnCo <sub>2</sub> O <sub>4</sub> nanorod arrays on Ni foam as binder-free electrode for asymmetric supercapacitor	Poster
470	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Yan, Xuehua; Wang, Qiong; Zhou, Chen; Wang, Jingjing; Cheng, Xiaonong	One-dimensional MoO <sub>3</sub> Modified by TiO <sub>2</sub> and Ag Nanoparticles for Supercapacitor with Enhanced Electrochemical Performance	Poster
471	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Wang, Chao; Li, Hong; Gu, Changzhi; Li, Junjie	Interfacial improvement of vertical graphene-coated silicon nanocone anodes for lithium-ion batteries	Poster



472	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Opoku, Francis Govender, Krishna Kuben van Sittert, Cornelia Gertina Catharina Elizabeth Govender, Penny Poomani	Tuning the electronic structures, work functions, optical property and stability of bifunctional hybrid graphene oxide/V-doped NaNbO <sub>3</sub> type-II heterostructures: a promising photocatalyst for H <sub>2</sub> production	Poster
473	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Govender, Penny Poomani Opoku, Francis Govender, Krishna Kuben van Sittert, Cornelia Gertina Catharina Elizabeth	First-Principles Study of Cubic SrTiO <sub>3</sub> with Perovskite-Type Materials MTaO <sub>3</sub> (M = Na, K) for Environmental Remediation	Poster
474	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Du, Zhenzhen; Ji, Hengxing	Cobalt in Nitrogen-Doped Graphene as Single-Atom Catalyst for High-Sulphur Content Lithium-Sulphur Batteries	Oral
475	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Majumder, Sumit (1,2); Sardar, Manas Satpati, Biswarup Pal, Shreyasi Dutta, Shibsankar De, Sukanta Kumar, Sanjay Banerjee, Sangam	Magnetization Enhancement of Fe <sub>3</sub> O <sub>4</sub> nanoparticles by attaching onto Graphene Oxide and its Application towards Magnetic Field Dependent Enhanced Electrochemical Energy Storage Performances: An Interfacial Effect	Oral
476	Symposium 4: Functional Materials for Energy Storage and	T. *, SELVARAJU T., SARAVANAKUM AR A.,	Fabrication of bimetallic chalcogenides with ease for better performance of DSSCs, hydrogen evolution reaction and as	Oral



	Conversion Devices (FESC)	PANDIKUMAR S.J., SARDHAR BASAH	hybrid energy storage material	
477	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Soibam, Aruna Chanu Lenka, Trupti Ranjan Dey, Krishanu Maung, Thway (3,4); Lin, Fen Aberle, Armin Gerhard (3,4)	Device Modeling for High Efficiency Lead Free Perovskite Solar Cell with Cu <sub>2</sub> O as Hole Transport Material	Oral
478	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Dehno Khalaji, Aliakbar	Supercapacitor studies on nickel oxide nanoparticles prepared by facile route calcination	Poster
479	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Kulkarni, Milind Vyankatesh	Solid State Li-ion Battery Research: C-MET Initiative and Future Plans	Oral
480	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Msomi, Phumlani Mudzunga, Vhahangwele Sigwadi, Rudzani Nonjola, Patrick	Improving properties of Polymer electrolyte membranes for fuel cell applications - Role of nanostructured materials	Oral
481	Symposium 4: Functional Materials for Energy Storage and Conversion	Chu, Xiangcheng Zhang, Mengfan Yuan, Songmei Zheng, Xueyang	Design and experiments of an eight-zonal piezoelectric tube-type threaded ultrasonic motor	Poster



	Devices (FESC)			
482	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Anjum, Nasim; Shen, Caiwei	Machine-washable flexible supercapacitors based on laminate composites	Oral
483	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Ferreira, Paula; Sierra, Dayana; Nunes, Cláudia; Vilarinho, Paula	Flexible chitosan-based BaTiO <sub>3</sub> piezoelectric composites	Invited
484	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Mukherjee, Sankha; Kavalsky, Lance; Chattopadhyay, Kinnor; Singh, ChandraVeer	Role of Electrolytic Solvents in 2D anode Based Batteries	Oral
485	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Qayyum, Ahmed Abdul; Khan, Zuhair Subhani	Self-Assembled SnS Particles Electrostatically Anchored on Three Dimensional Dual Doped Holey Graphene for High Performance Sodium Ion Batteries	Oral
486	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	JANA, SOUMITA BHATTACHARYA, ARNAB SHANKAR SINGH, GAJENDRA PRASAD	Charge storage behavior in flower structure of rGO-MnO <sub>2</sub> nanoparticles for supercapacitor application.	Oral



487	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Paksoy, Halime O.	Advanced Phase Change Materials for Thermal Energy Storage and Management	Oral
488	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Lee, Minjae	Dicationic Imidazoiium Iodide Plastic Crystals for a Solid-State Electrolyte of Dye-Sensitized Solar Cells	Oral
489	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Li, Zhaohuai; He, Qiu; Xu, Xu; Mai, Liqiang	Three-Dimensional Nitrogen-Doped Graphene/TiN Nanowire Composite as a Strong Polysulfide Anchor for Lithium-Sulfur Batteries	Oral
490	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Xiong, Ren-Gen	Multiaxial Molecular Ferroelectric material	Invited
491	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Ebhota, WS; Tabakov, PY	The Significance of Domestic Production of Low-Cost Photovoltaic Cells in Sub-Saharan Africa Renewable Energy Roadmap and Wellbeing	Oral
492	Symposium 4: Functional Materials for	Calvo-Castro, Jesus McHugh, Callum	Exploring Structure Based Charge Transport Relationships in Phenyl	Oral



	Energy Storage and Conversion Devices (FESC)		Diketopyrrolopyrrole Single Crystals Using a 2D $\pi$ - $\pi$ Dimer Model System	
493	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Paris, Oskar Koczwara, Christian Prehal, Christian	Watching ions in nanoporous supercapacitor electrodes at work using in-situ small-angle X-ray scattering	Oral
494	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Stempien, Zbigniew Khalid, Mohmmad Kozicki, Marek	Flexible solid-state supercapacitors based on graphene/polypyrrole composites inkjet printed on textile substrates	Oral
495	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Xu, Jing	Electrochemical capacitance performance of polyaniline/activated carbon fibers	Oral
496	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Ko, Jang Myoun; Manasi, Mwemezi	Hydroxy Terminated Poly(dimethylsiloxane) as an Electrolyte Additive to Enhance the Cycle Performance of Lithium-Ion Batteries	Poster
497	Symposium 4: Functional Materials for Energy Storage and Conversion	Huaigno, Xue	Two-dimensional Covalent Organic Framework for Energy Storage	Invited



	Devices (FESC)			
498	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Park, Ho Seok	Ultracapacitive Energy Storage Using 2D Nanomaterials Under Extreme Conditions	Oral
499	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Mukherjee, Sankha; Singh, Chandraveer	Atomistic Simulations of Energy Dissipation in Amorphous Silica Nanoresonators	Oral
500	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Das, Sukhen Shaikh, Minarul Hoque, Nur Amin Biswas, Prosenjit Thakur, Pradip	Use of ZrO <sub>2</sub> Stimulated PVDF HFP Composite Flexible Thin Film in developing High Performance Piezoelectric Nanogenerator and Transparent Single Electrode Triboelectric Nanogenerator	Oral
501	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Basu, Ruma Hoqu, Nur Amin Biswas, Prosenjit Das, Sukhen Thakur, Pradip	Fabrication of flexible thin film Piezoelectric Nanogenerator and Single Electrode Triboelectric Nanogenerator for Energy Harvesting by using CuS nanoparticle doped PVDF	Oral
502	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Samuel, Manu Saji; Mevada, Chirag; Mukhopadhyay, Mausumi	Chemically Activated Hydrophilic Carbon Cloth as an Electrode Material for Energy Storage Device	Oral





503	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Zhang, Chi; Wang, Zhong Lin	Tribotronics for Mechanosensation and Self-Powered Microsystems	Invited
504	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Mo, P.-J. Wang, James Wang, Hong Paul	Air-processed perovskite solar cells made with SnO <sub>2</sub> quantum dots	Poster
505	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Zhuang, M.-X. Mo, P.-J. Wang, James Wei, Y.-L. Wang, Hong Paul	Preparation of perovskite solar cells without a hole transport layer in ambient air	Poster
506	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Bal, Burak	A Digital Representation of a Microstructure and Determining its Mechanical Behavior	Oral
507	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Kiarri, Ephraim Muriithi Govender, Krishna Kuben Mamo, Messai Adenew Govender, Penny Poomani	DFT Study of Skutterudite CoSb <sub>3</sub> and In <sub>0.2</sub> Co <sub>4</sub> Sb <sub>12</sub> Thermoelectric Heterostructures with 2D-WSe <sub>2</sub>	Poster
508	Symposium 4: Functional Materials for	Wang, Lin Welborn, Samuel Detsi, Eric (1,2)	A Long Cycle-Life and High-Rate Magnesium-Ion Battery Anode Enabled by	Oral



	Energy Storage and Conversion Devices (FESC)		Self-Healing through Near-Room-Temperature Solid-Liquid Phase Transition	
509	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Jiang, Yuan; Gao, Xumin; Yuan, Jialei; Jiang, Yan; Shi, Zheng; Wang, Linning; Jin, Ruixue; wang, yongjin	Dual-functioning subwavelength vertical-structure multiple-quantum well diode	Poster
510	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Fu, Jintao Corsi, John (1,2); Li, Manni (1,3); Detsi, Eric (1,2)	High-Rate and Long Cycle-Life of Bulk Na <sub>2/3</sub> [Ni <sub>1/3</sub> Mn <sub>2/3</sub> ]O <sub>2</sub> Sodium-ion Battery Cathode Enabled through Structural Inclusions	Oral
511	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Corsi, John (1,2); Stach, Eric (1,2); Detsi, Eric (1,2)	Operando TEM Investigation of Lithium Storage Mechanisms in Nanoporous Alloy-Type Lithium-Ion Anodes	Oral
512	Symposium 4: Functional Materials for Energy Storage and Conversion Devices (FESC)	Sahalie, Nigus Aweke	Enhanced performance of anode free lithium metal battery: Understanding the effect of electrolyte additives in carbonated electrolyte	Poster
513	Symposium 4: Functional Materials for Energy Storage and Conversion	Welborn, Samuel S. Corsi, John S. Detsi, Eric (1,2)	3D Nanoporous Conductor-Insulator-Conductor (CIC) Capacitor	Oral



	Devices (FESC)			
514	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	DAI, GUIPING	One-Step Synthesis of 3D N-doped Carbon Nanotube/N-doped Graphene Hybrid Material by Chemical Vapor Deposition	Oral
515	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Kovaricek, Petr	Chemistry on and with Graphene: Introducing Selectivity, Functionality and Motion	Oral
516	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	TIWARI, PRANAV; Mobin, Shaikh M	Direct Exfoliation of Graphite from Carbon dots derived from Cannabis Sativa	Oral
517	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Li, Huaping	Selective Protonation of Sodium Cholate for Reversible Blue-Shift Absorption Spectra of Single-Chirality Single-Walled Carbon Nanotube in Solution	Oral
518	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	John, Neena; Ramakrishnan, Vivek; Alex, C	Molybdenum Oxide Nanostructures for energy applications	Oral
519	Symposium 5: Functional Low dimensional, Nano and	Shi, Zhiming	Controlling of the microstructure to improve humidity sensing behaviors of titania based nanofilms by RE-doping	Oral



	2D materials (FLNM)			
520	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Zhang, Jianfang (1,2); Wang, Yan Wu, Jingjie Wu, Yucheng	Synthesis of water-soluble defect-rich MoS <sub>2</sub> ultrathin nanosheets for enhanced hydrogen evolution reaction	Oral
521	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Cantalini, carlo; ottaviano, luca; paolucci, valentina	Controlling microstructure and surface oxidation of few layers exfoliated WS <sub>2</sub> for NO <sub>2</sub> and H <sub>2</sub> gas sensing applications	Oral
522	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Sambur, Justin	Single nanoparticle electrochromism measurements reveal heterogeneous coloration rates and ion trapping sites in smart windows	Oral
523	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Sambur, Justin	Efficient Carrier Collection in Monolayer Liquid Junction Photovoltaic Systems	Oral
524	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Gupta, Surojit	Design of Novel Particulates from MAX and MAB Phases	Oral
525	Symposium 5: Functional Low dimensional, Nano and	Black, David Michael Lopez, Priscilla Orr, Elizabeth Lara, Humberto Herman	Super Atom Complexes with Antiviral and Bactericidal Activity	Oral



	2D materials (FLNM)	Alvarez, Marcos Miguel Baghdesarian, Glen Lopez Ribot, Jose Luis Whetten, Robert Loyd		
526	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Baruah, Jubaraj Bikash	Emission Properties of Organic Fluorophores in Solid and Solution	Invited
527	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Alvarez Barragan, Alejandro Jose; Mangolini, Lorenzo	Plasmon-induced chemistry with plasmonic titanium nitride nanoparticles as an alternative to gold	Oral
528	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Biranje, Pratiksha Madhukar	Synthesis and characterization of high aspect ratio graphene oxide through a continuous re-exfoliation of graphite	Oral
529	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Yu, Xuecheng; Kilani, Mohamed; Schaefer, Evan; Luo, Long; Mao, Guangzhao	Chemical Sensor Fabrication by Direct Deposition of Organic Nanowires	Oral
530	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Zou, Taoyu Wang, Xiaoyan Guo, Tingting Song, Yumin Wu, Wei Wang, Hai	Magnetic and optical properties of metal-phthalocyanines: A low-dimensional organic semiconductors	Oral



531	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Rodríguez, Juan Ignacio Vergara-Beltran, Ulises Asael Resendiz- Serrano, Dulce María Autschbach, Jochen	Optical and charge transport properties of gold-nanocluster complexes: single- molecule nanowires	Poster
532	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Jue, Melinda; Chen, Chiatai; Buchsbaum, Steven; Meshot, Eric; Park, Sei Jin; Wu, Kuang Jen; Fornasiero, Francesco	Wafer-scale nanofiltration membranes with a high density of narrow SWNT pores	Oral
533	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Buchsbaum, Steven; Jue, Melinda; Sawvel, April Marie; Chen, Chiatai; Meshot, Eric; Park, Sei Jin; Wu, Kaung Jen; Lau, Edmond Y.; Pham, Tuan Anh; Fornasiero, Francesco	Fast ion diffusion in carbon nanotube pores	Oral
534	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Chen, Hongyu Dai, Mingjin Fang, Xiaosheng Hu, PingAn	Special functional photodetectors based on low dimensional materials	Oral
535	Symposium 5: Functional Low dimensional,	Zhagypar, Nurzhan Satayeva, Gulzipa	Effects of ceramic nanoparticles on thermal properties of mineral transformer oil in	Poster



	Nano and 2D materials (FLNM)	Jamankulov, Erbolosyn Valinurov, R	nanofluids based on Al <sub>2</sub> O <sub>3</sub> / AlN	
536	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Balzhan, Satanova Satayeva, Gulzipa Tazhbayev, Adilbek Arysbeke, O	Technical problems of nanofluid research	Poster
537	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Bekzhanov, Yeldos Useinov, Abay Kamalbay, Kaysar Aidarkhanov, R	The production of cellulose fibers	Poster
538	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Lan, Lingyi; Ping, Jianfeng; Ying, Yibin	Highly Conductive Composite Film of Silver Nanowires Network "Nanosoldered" by Metallic MoS <sub>2</sub> Nanosheets for Stretchable Strain Sensor and Self-powered Triboelectric Nanogenerator	Oral
539	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Bera, Abhijit; Bhagavatula, Prasad L V	2D metal thiolates as single source precursors for the preparation of semiconducting metal and bimetallic sulfide nanocrystals	Oral
540	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Xiang, Lan Wang, Jing Chen, Ruosong	Hierarchical ZnO Nano-architectures and their Photocatalytic Properties	Oral



541	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Chen, Ruosong Wang, Jing Xiang, Lan	Light Activated Gas Sensing based on ZnO Nanocomposites	Oral
542	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Soni, Ankit; Mulchandani, Komal; Mavani, Krushna R	Deposition and optical properties of crystallographically oriented porous ZnO nanostructures	Oral
543	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Rightsell, Chris; Large, Nicolas; Sardar, Dhiraj K.	Plasmon-Induced Optical Emission Enhancement of Trivalent Rare Earths in Hybrid Core-Shell Nanostructures	Poster
544	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	WANG, XUAN AUBRIT, FLORIAN (1,2); TESTARD, FABIENNE GUENOUN, PATRICK ARADIAN, ASHOD KILDEMO, MORTEN PONSINET, VIRGINIE	Block copolymer based self-assembled hyperbolic metamaterial in the visible range	Oral
545	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Gunasekara, Disni Kilani, Mohamed Mao, Guangzhao Luo, Long	Mass Transfer-Based Methods for Controlling the Growth of Charge-Transfer Salt Micro/Nanowires	Oral





546	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Chen, Hua Yun; Wang, Yi Xian; Qiu, Qi Ming	Scalable production of two dimensional metal-organic framework nanosheets by shear exfoliation applied for colorimetric detection of hydrogen peroxide	Oral
547	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Liu, Dan; Wu, Yuanpeng; Xue, Ye; Qin, Si; Wang, Xuebin; Hu, Xiao; Lei, Weiwei	"White graphene" and its nanocomposites for thermal management applications	Poster
548	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Thakur, Mukesh Kumar; Gupta, Akash; Chattopadhyay, Surojit	High responsivity broadband photo detection by graphene engineered core, and core-shell upconversion nanoparticles	Oral
549	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Fono-Tamo, Romeo Sephyrin; Tien-Chien, Jen	A castep study of TbBr <sub>3</sub> structural and electronic properties	Oral
550	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Maji, Rita; Bhattacharjee, Joydeep	Switchable ferro-magnetism and more in layers of 2p block elements	Oral
551	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Singh, Sandeep	Modified Multiscale Computational Framework for the Nonlinear Dynamics Response of the Two-Dimensional Nanomaterials	Oral



552	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Qiu, Qiming; Wang, Yixian; Chen, Huayun	Solution-Phase Synthesis of Noble Metal (Ag, Au, Pd) Nano-plates Decorated 2D Metal-Organic Frame-work Hybrid Nanomaterials	Oral
553	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Singh, Chandra Veer; Filleter, Tobin; Mukherjee, Sankha	Nanomechanics of Graphene Oxide Nanosheets	Oral
554	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	BERA, ABHIJIT	A Solvent-less Solid State Grinding Method for the Synthesis of Dispersible Semiconducting Bimetallic Sulfide (Ternary) Nanocrystals	Poster
555	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Sasidharan, Sajitha; Prakash, Vivek; Ramakrishnan, Vibin	Hybrid Magnetic Material for Removal and Reduction of Heavy Metals	Oral
556	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Holdas, Serik Tazhibayev, Adilbek Kozhanov, N. Myrzakhmet, Marat	Semiconductor gas sensor based on tin oxide on-line monitoring of dissolved gas in transformer fluids	Poster
557	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	ALI, AZAM	Electrically conductive textile sensors made by silver and copper nanoparticles	Oral



558	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Chang, Jeehan Lee, Jaekyeong Georgescu, Andrei Huh, Dan D. Kang, Taewook	Pinpoint Deposition of Nanoparticle Monolayer on Various Solid Substrates without Considering Surface Chemistry	Poster
559	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Ivanov, Victor Genchev Faulques, Eric Sloan, Jeremy Kalashnyk, Nataliya	Raman spectroscopy characterization of ultrathin metal-chalcogenide and metal-halide nanowires encapsulated in single-walled carbon nanotubes – theory and experiment	Poster
560	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Insiti, Piboonwan Parnsubsakul, Attasith (1,2); Ngoensawat, Umphan Sapcharoenkun, Chaweewan Ekgasit, Sanong (1,2)	Biocellulose Nanocrystal-Assisted Fabrication of Uniform Urchin-like Gold Film for Using as SERS Substrate	Poster
561	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Zhao, Xin (1,2); Papageorgiou, Dimitrios Zhao, Wen (3,4); Ding, Feng (3,4); Young, Robert (1,3)	The Strength of Mechanically-Exfoliated Monolayer Graphene	Oral
562	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Ekgasit, Sanong (1,2); Sapcharoenkun, Chaweewan Suriya, Porapak Jangtawe, Parinton Nootchanat, Supeera	Fabrication of porous silver film by thermal decomposition of rod shape silver acetate under a suppressed sintering of nanoparticles	Oral
563	Symposium 5: Functional Low	Kim, Sam-Soo; Park, Sung-Eun;	Room-temperature 3D integration of low-dimensional nano and 2D	Oral



	dimensional, Nano and 2D materials (FLNM)	Choi, Gyuseok; Kim, Yoonkap	materials on flexible substrates by transfer printing methods	
564	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Parnsubsakul, Attasith (1,2); Ngoensawat, Umphan Insiti, Piboonwan Sapcharoenkun, Chaweewan Ekgasit, Sanong (1,2)	In situ Rapid Synthesis of Gold Nanoparticles-Poly(dimethylsiloxane) Composite Films with Tunable Plasmonic Properties	Oral
565	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Kumar, Pawan; Thakur, Deepa; Balakrishnan, Viswanath	Defect and phase engineering in 2D materials for Optoelectronic Applications	Invited
566	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Zivieri, Roberto	A New Class of Metamaterials: 2D Ferromagnetic Nanostructures	Oral
567	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Khalil, Ahmed S. G.	Photocatalytic and Adsorption Performance of Hybrid Phases of MoS <sub>2</sub> Nanosheets	Oral
568	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Faulques, Eric Sloan, Jeremy Ivanov, Victor Genchev Cordier, Stéphane Molard, Yann Costuas, Karine Duvail, Jean-Luc	Encapsulation of red-light-emitting phosphors in single-walled carbon nanotubes – from experiments to models	Oral



		Massuyeau, Florian Kalashnyk, Nataliya		
569	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Hantehzadeh, Mohammad Reza; Moniri, Samira	Colloidal Synthesis of Nano MoS <sub>2</sub> by Nanosecond Laser Ablation of a Bulk MoS <sub>2</sub> Target in an Organic Solution	Oral
570	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Kavalsky, Lance; Mukherjee, Sankha; Singh, Chandra Veer	Metadynamics Biased Ab- Initio Molecular Dynamics Studies of Doped Phosphorene for Increased Ambient Stability	Oral
571	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Razal, Joselito	MXene Fibers: the New Member of Functional Fibers Made From Two Dimensional Nanosheets	Oral
572	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Stekovic, Dejan (1,3); Itkis, Mikhail E. (1,2,3)	Designing Fast Electrochromic Devices Based on Single-Walled Carbon Nanotube Thin Films	Oral
573	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Basu, Surita Naik, Bhukya Vishnu Kalluri, Ankarao Patra, Prabir Sarkar, Jayati	Dewetting assisted selfassembly/ origami formation and folding of graphene particles	Oral
574	Symposium 5: Functional Low dimensional,	Paulenová, Daša; Marták, Ján;	Preparation and physico- chemical properties of suspensions of graphene	Oral



	Nano and 2D materials (FLNM)	Schlosser, Štefan	oxide in solvent with ionic liquid	
575	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Park, Dongsung (1,2); Kim, Hye Jin Kim, Jae Hyun Hwang, Kyo Seon	Reduced Graphene Oxide (rGO) Based Solution-Gated Field Effect Transistor for Biosensing Platform	Poster
576	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Lee Jr., Mark Wayne; Wang, Teng-Wei; Madugula, Dronareddy; Clark, Madison	Pseudo-spherical Organic-inorganic Hybrid Nanomolecular Clusters Exhibiting Redox-controlled Fluorescence Switching and Electrochromism	Oral
577	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Widawer, Bradley Harris; Tischler, Yaakov	Real-time Raman spectroscopy of laser-ablated PDMS stamps	Poster
578	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Hao, Hongliang; Wang, Shuai; Li, Huanhuan; Wu, Qingmeng; Fang, Yingcui	Strong Damping of the Localized Surface Plasmon Resonance of Metal Nanoparticles and its Applications	Oral
579	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	EGINLIGIL, Mustafa	Investigation of effect of lithium doping in silver nanowires	Oral
580	Symposium 5: Functional Low dimensional, Nano and	Petrov, Victor A.	Fano resonances at interference of electron waves in geometrically inhomogeneous	Poster



	2D materials (FLNM)		semiconductor 2D nanostructures	
581	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Zatsepin, Anatoly Kuznetsova, Yulia Zatsepin, Dmitry Gavrilov, Nikolay	Planar photonic structures based on Gd-implanted silica glasses and films	Poster
582	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Almaqwashi, Ali Fouda, Aly (1,2); Duraia, El Shazly	Synthesis of nitrogen doped graphene/carbon nanotubes nanocomposite using urea and humic acid	Oral
583	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Shirazi, Shaahin	Source and Drain Under/Overlap with the Gate in 1D GAA MOSFETs and TFETs: a Better Performance	Poster
584	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Tan, Dan (1,2); Willatzen, Morten (1,2)	Flexoelectric effect of low-dimensional graphene nanosheets	Oral
585	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Amirav, Lilac	Sculpting Photocatalysts on the Nano Scale	Oral
586	Symposium 5: Functional Low dimensional, Nano and	Amirav, Lilac	Sculpting Photocatalysts on the Nano Scale	Oral



	2D materials (FLNM)			
587	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Zhengissova, Yerkezhan	Ferrofluid for transformers: is obtained by modification of mineral oil with magnetite nanoparticles Fe <sub>3</sub> O <sub>4</sub>	Oral
588	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	HE, JUN	Two-Dimensional Metal Chalcogenide Semiconductors: Design, Synthesis and Applications	Oral
589	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Song, Yanlin	Green Printing Technology for Manufacturing Functional Devices	Invited
590	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	LOPEZ MEDINA, JAVIER ALONSO ORTIZ ATONDO, AXEL AGUSTIN Muñoz Muñoz, Franklin David Tiznado Vazquez, Hugo Jesus	ZnO Ultra-Thin Films Growth on Magneto-Controllable Core-Shell Nanoparticles Encapsulated With a Removable SiO <sub>2</sub> Template	Poster
591	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	LIU, Yunqi	Controlled preparation of graphene and its electronic properties	Invited





592	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Amer, Moh	Van der Waals Semiconductors: Towards New and Emerging Electronic and Photonic Devices	Invited
593	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Kempiński, Wojciech Kempiński, Mateusz	Size effects and electronic properties of graphene-based systems	Oral
594	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Karigerasi, Manohar; Wagner, Lucas; Shoemaker, Daniel	Uncovering anisotropic magnetic phases via fast dimensionality analysis	Oral
595	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Shen, Yue Sun, Yanxia Hai, Chunxi Zhou, Yuan Zhang, Yi	Charges storage and transfer behaviors of single layer reduced graphene oxide sheets	Poster
596	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Kumavat, Sandip Sonvane, Yogesh Singh, Deobrat Gupta, Sanjeev	MAPI monolayer with High Solar Efficiency: Ab-initio Method	Oral
597	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Li, Min Liu, Fang Yuan, Hang Zheng, Hao Ouyang, Xiaoping (2,3,1); Wang, Huakang	Effect of Ce doping on improvement of luminescence performance for LaBr <sub>3</sub> crystals	Invited



598	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Samulionis, Vytautas Banyas, Juras Vysochanskii, Yulian	Two-dimensional CuInP <sub>2</sub> S <sub>6</sub> family crystals and their applications for piezoelectric transducers	Oral
599	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Zhang, Yongyi (1,2); Yang, Zhengpeng Niu, Yutao (2,3); Li, Qingwen	The In-situ fabrication of multi-level graphene fiber and its applications	Oral
600	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Huang, Mengbing; Malladi, Girish; Bakhru, Hassaram	Enhanced room-temperature magnetoresistance of metal/silicon/metal junctions with embedded nickel nanostructures formed by ion implantation	Oral
601	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Zhu, Xiaolu; Wang, Yingda; Zhao, Wenjie; Xu, Chunwang	Detecting Heavy Metal Ions by Graphene Flakes-Based Microdevices	Poster
602	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Liu, Fang Ouyang, Xiao Liu, Bin Li, Min Ouyang, Xiaoping (3,4,1); Wang, Huakang Ma, Yan Lyu, Xuefeng Niu, Fenglei	Effect of crystal size on luminescence properties of CsI(Tl) crystal under X-ray excitation	Poster
603	Symposium 5: Functional Low dimensional, Nano and	Li, Yang Zhang, Zhiqiang Song, Yu	An Electrochemical Sensor Modified with Renewable Copper Nano-Clusters for Continuous Nitrate Determination	Oral



	2D materials (FLNM)			
604	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Kreve, Simone Vidal, Carla Alves, Oswaldo dos Reis, Andréa Candido	Self-curing reline resin with antimicrobial activity	Poster
605	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Li, Hongbian Li, Li Yang, Long Shi, Enzheng Shi, Jidong Cao, Anyuan Fang, Ying	Growth of CNT-weaved 2D hybrid films for flexible electronics	Oral
606	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Kalem, Volkan; Akyıldız, Hasan	Synthesis of (Bi,Na)TiO <sub>3</sub> nanoparticles by Colloidal Coating Method and Their Dielectric and Piezoelectric Properties	Oral
607	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Zakhidov, Dante; Rehn, Daniel; Reed, Evan; Salleo, Alberto	Reversible 2H to 1T' Phase Change in Monolayer to Bulk MoTe <sub>2</sub> by Ionic Liquid Gating	Oral
608	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Kinik, Fatma Pelin; Stylianou, Kyriakos	2D metal free co-catalyst/metal organic framework hybrid materials for visible light photocatalytic hydrogen production	Oral
609	Symposium 5: Functional Low dimensional, Nano and	Friedli, Andrienne C. Ali, Muhammad O. Jakubowski, Rafal M.	High dielectric anisotropy fluid materials derived from boron clusters	Poster



	2D materials (FLNM)	Lukasik, Beata D. Pecyna, Jacek G. Pochiecha, Damian Kaszynski, Piotr (1,2,4)		
610	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Zhang, Hui Zhang, Meng Liu, Pengtao (1,2); Liu, Xinliang	Preparation and Properties of Nanocellulose-based Flocculant	Poster
611	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Wang, Hao; Maiti, Rishi; Miscuglio, Mario; Sorger, Volker J.	All Optical Plasmonic WSe <sub>2</sub> Based Modulator	Oral
612	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Khan, Muhammad Zaman; Baheti, Vijay; Militky, Jiri	Superhydrophobicity, UV protection and comfort properties of TiO <sub>2</sub> nanoparticles coated cotton fabrics	Oral
613	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Zhang, Shengxia; Liu, Jie; Zeng, Jian; Hu, Peipei; Maaz, Khan; Xu, Lijun	Effect of swift heavy ion irradiation induced latent tracks on the electronic transportation behavior in multilayer MoSe <sub>2</sub>	Poster
614	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Selvamani, Vijayakumar	In Vivo Contrast Studies on Breast Cancer tumor in Sprague dawley rats and Photothermal Therapy Using Gold Nanoparticles	Oral



615	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Zeng, Jian	Graphene electrical properties modulated by swift heavy ion irradiation	Oral
616	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Li, Dejun; Dong, Lei	Influence of temperature rise rates on the interfacial structure and mechanical stability of TiB <sub>2</sub> /BN superlattice coatings	Poster
617	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Kulkarni, Milind Vyankatesh	Successful Journey of Conducting Polyaniline from Non Soluble and Non Process able Powder to Process able, Aqueous, Ink-jet Printable Ink for Flexible Electronics Applications	Invited
618	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Xu, Weinan Paidi, Santosh Qin, Zhao Huang, Qi Yu, Chi-Hua Pagaduan, Jayson Buehler, Markus Barman, Ishan Gracias, David	Self-folding hybrid graphene skin for 3D biosensing	Oral
619	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Shah, Wiqar Hussain	Designing and Fabrication of efficient nano-materials for thermoelectric generator	Oral
620	Symposium 5: Functional Low dimensional,	Wang, Bin (1,2); Ruoff, Rodney S. (2,3)	Fracture Strengths of Centimeter-Scale Monolayer Graphene Films	Poster



	Nano and 2D materials (FLNM)			
621	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Zhao, Yong Sheng	Organic Printed Microlaser Arrays	Oral
622	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	rostampour, elnaz	Quantum Chaos in the K@C20@C80 nano-onion billiard	Poster
623	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Mohamed, Hanan Ramadan Hamad	Genomic instability and mitochondrial DNA damage induction by Calcium hydroxide normal and nano-nanoparticles	Invited
624	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Liao, Lei	Negative Capacitance Field-Effect Transistors with Subthreshold Swing below the Physics Limit	Invited
625	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	WANG, Yeliang (1,2)	Epitaxial Growth and Properties of 2D Topological Antimonene and Heterostructures	Invited
626	Symposium 5: Functional Low dimensional, Nano and	Rasoolidanesh, Melahatsadat; Darvish Ganji, Masoud	Efficient performance of boron nitride nanotubes as chiral selector for separation of ibuprofen	Poster



	2D materials (FLNM)		enantiomers using DFT-D3 calculations	
627	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Yerushalmi, Roie	Functional Nanowires for Device Applications; Electronic Plasmonic-enhanced Near-Infrared Detectors Using Nano-Floret Hybrids	Oral
628	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Zhang, Chuang	Controlling the Crystallization Process in Hybrid Perovskite Films for Photodetector Application	Poster
629	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	DINI, Yoann (1,2,3); FAURE-VINCENT, Jérôme (1,3); DIJON, Jean (1,2)	Drastic improvement of CNT yarn electrical conductivity by chemical doping and annealing treatment	Oral
630	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Roth, Wieslaw J	Zeolites as low-dimensional materials combining nanopores and nanolayers	Oral
631	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Williams, Gary A.; Menachekanian, Emin; Iaia, Vito; Fan, Mingyu; Chen, Jingjing; Hu, Chaowei; Mittal, Ved; Liu, Gengming; Reyes, Raul; Wen, Fufang	Superfluid Onset and Compressibility of 4He Films Adsorbed on Multiwall Carbon Nanotubes	Oral



632	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Yao, Huijun	Selectively enhanced ion transport in graphene oxide membrane/PET conical nanopore system	Oral
633	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Zhang, Yin; Zhao, Junming; Feng, Yijun	Manipulation of Terahertz Wave with Tunable Graphene Metamaterial Structures	Poster
634	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Zhou, Xiaojing Gao, Wenyu Heinig, Nina Kang, Jungsoo Zhang, Lei Thomas, Joseph Leung, Kam Tong	Control of the Size and Chemical Composition Selective Copper Nanocrystals on Highly Conductive Graphene Sheet Electrode	Oral
635	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Zhang, Mengyu; Chen, Hao; Yin, Jinde; Zhang, Min; Wang, Jinzhang; Wang, Jintao; Ruan, Shuangchen; Yan, Peiguang	Two-dimensional layered materials based van der Waals heterostructures and their applications for broadband optical modulators	Oral
636	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Reddy, Leelakrishna; Nkosi, Thabang; Avula, Balakrishna	Violet-blue-shift of spectrum and enhanced luminescent properties of $\text{Ca}_3(\text{PO}_4)_2:\text{Ce}^{3+}$ phosphor induced by small amount of $\text{Gd}^{3+}$ incorporation	Poster
637	Symposium 5: Functional Low dimensional, Nano and	T V, Beatriceveena (1,2); E, Prabhu K I, Gnanasekar	Selective sensing behaviour of 1D beta- $\text{Ag}_2\text{MoO}_4$ nanorods towards ammonia	Poster





	2D materials (FLNM)			
638	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Hua, Tao	One- and Two-dimensional Fiber-based Sensing and Energy Storage Devices based on Conductive Materials and Yarn/Fabric Substrates	Oral
639	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Abdullah, Mohammad Margub	Legitimate Evaluation of Sensor Properties	Oral
640	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Zhang, Wenting; Wang, Fenxia; Guo, Xiaoxing; Yan, Zhaowen; Li, Yumiao; Yang, Jianhong	Floating Gate Memory Device with Organic Active Layer Based on SOI Substrate	Oral
641	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Jang, Hyuk Jae; Kim, Min Seok; Lee, Gil Ju; Song, Young Min	Reobservation of GaN Nanostructures for Random Laser	Poster
642	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Sarkar, Abdus Salam; Mushtaq, Aamir; Pal, Suman Kalyan	Exciton and phonon dynamics in two-dimensional tin(II) monosulfide	Oral
643	Symposium 5: Functional Low dimensional, Nano and	Ahmad, Kaleem Wan, Chunlei	Thermoelectric properties of Lead Telluride (PbTe) based single wall carbon nanotube (SWCNT) composites	Oral



	2D materials (FLNM)			
644	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	zafar, fahmina Sharmin, Eram Nishat, Nahid	Agro byproduct derived functional materials: Synthesis and characterizations	Oral
645	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Nishat, Nahid	Schiff base derived coordination complexes / polymeric materials for biological applications	Invited
646	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Xin, Wenbo; De Rosa, Igor M; Carlson, Larry; Yang, Jenn-Ming	Graphene-Templated Growth of Surfactant-free Anisotropic Gold Nanocrystals	Oral
647	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Olayo-Valles, Roberto; Hernández-Guzmán, Mario A.; González-Calderón, Luis E.	Composite Magnetic Particles Coated by Plasma Polymerization for Drug Delivery	Poster
648	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Ittara, Suresh Kattimuttathu	Amphiphilic comb polymer modified graphene surfactant for electrochemical sensing of dopamine and ascorbic acid.	Oral
649	Symposium 5: Functional Low dimensional, Nano and	Rybalchenko, Alexey V. Solovyeva, Vera A. Akhmetov, Vladimir A. (1,2);	Non-Planar Polyenes: a Circuit Boards with Tunable Electronic Properties	Oral



	2D materials (FLNM)	Lukonina, Natalia S. Amsharov, Konstantin Yu. Goryunkov, Alexey A.		
650	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	KUANR, BIJOY KUMAR	Magnetization dynamics in La <sub>1-x</sub> Sr <sub>x</sub> MnO <sub>3</sub> nanoparticles	Poster
651	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Das, Kausiksankar Barnes, Benjamin Bane, Nathan Elkholy, Ibrahim Olofin, Samuel	Pulsed Laser Scribed Graphene/Polymer composites: A Potential Route to Print on-chip Carbon Nano-Coil Inductors	Poster
652	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	AlMishal, Saeed Sameer Ibrahim Hatem, Tarek Moustafa El-Mahallawi, Iman Salah Eldin	A Molecular Dynamics Study of Perovskite Structure Crystal Correlations	Oral
653	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Wang, Ying; Wang, Sansheng	Preparation of graphene oxide and graphene by two-step oxidation	Poster
654	Symposium 5: Functional Low dimensional, Nano and 2D materials (FLNM)	Bhale, Pranav Ari-Gur, Pnina Koledov, Victor Shavrov, Vladimir	The Effect of Processing on the Structure and Texture of Melt-spun Ti <sub>2</sub> NiCu Shape Memory Ribbons	Oral
655	Symposium 5: Functional	Zhang, Yong	The road toward miniaturization and	Plenary



	Low dimensional, Nano and 2D materials (FLNM)		integration of ionization sensors following advanced MEMS	
656	Symposium 6: Functional Thin Films (FTF)	Elhadj, Selim; Yoo, Jae Hyuck	Lifetime optical damage of wide bandgap semiconductor-based thin film transparent electrodes	Invited
657	Symposium 6: Functional Thin Films (FTF)	Singh, Kamaljit; Kaur, Paramjit	Functional organic materials: Synthesis and Structure dependent Charge transport and nonlinear optical behaviour of tetrathia/oxa[22]porphyrin(2.1.2.1)s and donor-acceptor dyads	Invited
658	Symposium 6: Functional Thin Films (FTF)	Ugwu, Emmanuel Ifeanyi	Theoretical Approach to Study the Solid State and Optical Characteristics of calcium Sulphide[CaS] Thin Film.	Oral
659	Symposium 6: Functional Thin Films (FTF)	Samoylov, Alexander Ryabtsev, Stanislav Ivkov, Sergey Turishchev, Sergey Shaposhnik, Alexey Badica, Petre	Palladium (II) Oxide Nanostructures for Detection of Ozone and Nitrogen Dioxide in Ambient Air	Oral
660	Symposium 6: Functional Thin Films (FTF)	Harmgarth, Nicole; Zörner, Florian; Liebing, Phil; Burte, Edmund P.; Silinskas, Mindaugas; Engelhardt, Felix;	Molecular Precursors for the Phase-Change Material Germanium-Antimony-Telluride, Ge <sub>2</sub> Sb <sub>2</sub> Te <sub>5</sub> (GST)	Oral



		Edelmann, Frank T.		
661	Symposium 6: Functional Thin Films (FTF)	Ukoba, Kingsley; Jen, Tien-Chien; Akbarzadeh, Rokhsareh	Review of Atomic Layer Deposition of Nanostructured Solar Cells	Oral
662	Symposium 6: Functional Thin Films (FTF)	Ukoba, Kingsley; Jen, Tien-Chien	Modeling the Optoelectronic properties of Nanostructured metal oxide Solar Cells	Oral
663	Symposium 6: Functional Thin Films (FTF)	Ugwu, Emmanuel Ifeanyi	Theoretical Approach to Study the Solid State and Optical Characteristics of calcium Sulphide[CaS] Thin Film.	Oral
664	Symposium 6: Functional Thin Films (FTF)	BEN JOSHUA, ROBERT	Taming the optical and morphological properties of chemically deposited Zinc Sulphide thin films for use in sustainable energy devices	Oral
665	Symposium 6: Functional Thin Films (FTF)	Dhanabalan, Shanmuga sundar Avaninathan, Sivanantha Raja Carrasco, Marcos Flores	Characterization of ITO & Gold Thin films on Novel Flexible PDMS substrate for Flexible Electronic Devices	Poster
666	Symposium 6: Functional Thin Films (FTF)	S., HARISANKAR; CHANDRA, MAHESH	Interfacial Ferromagnetism and Exchange Bias in NdNiO <sub>3</sub> /NdMnO <sub>3</sub> Multilayers	Oral
667	Symposium 6: Functional Thin Films (FTF)	Wang, Jingxia (1,2)	Superwettability of Colloidal Photonic Crystals	Oral
668	Symposium 6: Functional Thin Films (FTF)	NWOFE, PATRICK AKATA; ELE, Samuel Ugochukwu; EZEKOYE,	Morphological and optical properties of chemically deposited magnesium doped-antimony sulphide thin films for use in optoelectronic applications	Poster



		Chinenye; AGBO, PETER EKUMA		
669	Symposium 6: Functional Thin Films (FTF)	S., HARISANKAR	Tuning non-Fermi liquid behavior by Oxygen variation and epitaxial strain in PrNiO <sub>3-δ</sub> thin films	Poster
670	Symposium 6: Functional Thin Films (FTF)	gong, lei wu, zhensen gao, ming wang, liguo li, yaqing wang, qian	Research on full- polarization light scattering characteristics from periodic nanoparticles upon micro roughness films system	Poster
671	Symposium 6: Functional Thin Films (FTF)	HENRANDEZ PADRON, GENOVEVA CASTAÑO MENESES, VICTOR	Development of Anticorrosive Hybrid Epoxy Resin Coatings	Poster
672	Symposium 6: Functional Thin Films (FTF)	Yang, Yunyun (1,2); He, Ximin	In-situ Preparation of a Biaxial Molecular Ferroelectric / Polymer flexible films with High-K Dielectric Properties	Oral
673	Symposium 6: Functional Thin Films (FTF)	KREMPASKY, JURAJ	GeTe(111) ferroelectric and (GeMn)Te multiferroic Rashba semiconductor: a novel paradigm for spintronic applications	Invited
674	Symposium 6: Functional Thin Films (FTF)	Sun, Mo; Liu, Ning; He, Ximin	Hydrogel Thin Film Interferometer Sensor for Metal Detection	Oral
675	Symposium 6: Functional Thin Films (FTF)	Ren, Jiaoyu; Ge, Liqin	Double network self- healing film and its Biological Activities	Oral
676	Symposium 6: Functional Thin Films (FTF)	Lei, Weiwei; Qin, Si; Chen, Cheng; Wang, Jiemin	Functional boron nitride membranes and their applications in energy harvesting and water purification	Oral



677	Symposium 6: Functional Thin Films (FTF)	Ge, Cheng-xian Wu, Zhen-sen Bai, Jing Gong, Lei	A Numerical Study about Optical Trapping Properties of Nanoparticle on Composite Metallic Film	Poster
678	Symposium 6: Functional Thin Films (FTF)	Hu, Ertao Wu, Ying Chen, Liangyao Wei, Wei	High efficient and thermally stable solar selective absorbers based on multi-layered metal/dielectric film structure	Oral
679	Symposium 6: Functional Thin Films (FTF)	ZHONG, Hong WANG, Yuanhao LU, Lin	A novel functional thin film based on black TiO <sub>2</sub> : super-amphiphobic surface transfer to super- hydrophilic/super- oleophobic surface via nature light activation	Oral
680	Symposium 6: Functional Thin Films (FTF)	Kontturi, Eero Meng, Zhuojun Hakalahti, Minna Niinivaara, Elina (1,3); Tammelin, Tekla	Specific Water/Vapor Uptake of Ultrathin Films of Cellulose: Paving the Way for New Responsive Materials from Renewable Polymers	Oral
681	Symposium 6: Functional Thin Films (FTF)	Runka, Tomasz Kaluzny, Jaroslaw Dewo, Wioletta Zorenko, Yuriy Gorbenko, Vitaliy	Raman spectroscopy of doped single crystalline films of perovskites grown using liquid-phase epitaxy method	Oral
682	Symposium 6: Functional Thin Films (FTF)	Szczurek, Anna; Kaleta, Jerzy; Krzak, Justyna	Organically functionalized sol-gel silica coatings on polymers for reduction of gas leakage	Oral
683	Symposium 6: Functional Thin Films (FTF)	Michels, Jasper Joost	Structuring polymer solutions upon liquid- vapor mass exchange	Oral
684	Symposium 6: Functional Thin Films (FTF)	Ribeiro, Anielen; Blom, Paul; Michels, Jasper	Polymer light-emitting diodes with an emitting layer based on a nano- confined semiconducting polymer blend	Oral



685	Symposium 6: Functional Thin Films (FTF)	Ghorab, Farzaneh	Nano Surface Coating of Pure Water PP Sediment Filter by P.V.D method to Reduce Biomass Affection	Poster
686	Symposium 6: Functional Thin Films (FTF)	Koussi, Erika	Nitridation of a TiO <sub>2</sub> based sol-gel diffraction grating to a metal-like TiN-based plasmonic grating extended in tubular geometries	Oral
687	Symposium 6: Functional Thin Films (FTF)	Thibodeaux, Khadijah (1,2); Kimmerly, Gabriella (1,3); Reim, Bethany (1,4); Froland, Jensina (1,3); Sanii, Babak (1,3,4,5)	Roll-to-roll processing of supported lipid bilayers: flexible substrates, rapid-prototyped inking, and shippable membranes	Oral
688	Symposium 6: Functional Thin Films (FTF)	Tammelin, Tekla Putkonen, Matti Gestranius, Marie Karpinen, Maarit Kontturi, Eero	Superlattice Structures of Plant-sourced Nanomaterials Hybridized with Inorganic thin films for Thermoelectric Materials	Oral
689	Symposium 6: Functional Thin Films (FTF)	Spirk, Stefan	Cellulose Thin Film Technology - Current Status and Future Challenges	Oral
690	Symposium 6: Functional Thin Films (FTF)	Gao, Haiping; Tong, Xin; Liu, Su; Zhang, Bopeng; Chen, Yongsheng	Nanocomposite ion exchange membranes and free-standing graphene oxide membrane in salinity gradient energy generation	Oral
691	Symposium 6: Functional Thin Films (FTF)	Zhai, Shengjie; Zhao, Yihong; Zhao, Hui	Programmable High-Efficiency Quasi-Random Nanostructures for Light Harvesting Devices	Oral
692	Symposium 6: Functional	Chen, Xiaoyang	Preparation and Characterization of	Oral





	Thin Films (FTF)		CaZrO <sub>3</sub> films prepared by RF sputtering technology	
693	Symposium 6: Functional Thin Films (FTF)	Yu, Ping	Enhancement of breakdown strength of ferroelectric films by constructing an oxygen vacancies migration barrier	Poster
694	Symposium 6: Functional Thin Films (FTF)	Migita, Shinji; Ota, Hiroyuki	Appearance and Disappearance of Ferroelectric Phase in Crystalline HfO <sub>2</sub> Thin Films Induced by Annealing Procedure	Oral
695	Symposium 6: Functional Thin Films (FTF)	Tong, Xin; Liu, Su; Gao, Haiping; Zhang, Bopeng; Chen, Yongsheng	A freestanding graphene oxide membrane for harvesting salinity gradient power and recovering waste heat	Oral
696	Symposium 6: Functional Thin Films (FTF)	Paras, Neha; Chauhan, Sudakar Singh	Line Tunneling Based TFET for Low Power and High Speed Switching Applications with Improved Linearity	Oral
697	Symposium 6: Functional Thin Films (FTF)	Rahman, Mohammad Mizanur	Self Polishing Properties of Antifouling Polyurethane Coatings	Oral
698	Symposium 6: Functional Thin Films (FTF)	Wang, Zhifang Cheng, Peng Chen, Yao Zhang, Zhenjie (1,2)	Fabrication of Freestanding and Nanoperforated Polymer-COF Membranes with Remarkable Mechanical Properties	Oral
699	Symposium 6: Functional Thin Films (FTF)	PARK, Yong Tae KIM, Dongseob CHOI, Kyungwho CHOI, Dukhyun	Layer-by-Layer Assembled Graphene Multilayers: Applications for Flexible Energy Harvesting Generators	Oral
700	Symposium 6: Functional	Ramanavicius, Simonas;	Titanium suboxides synthesis by direct oxidation method	Oral



	Thin Films (FTF)	Jagminas, Arunas		
701	Symposium 6: Functional Thin Films (FTF)	Paz, Yaron; Dinner, Omry; Grader, Gideon	Orthogonal fractal growth of Csl domains forming a ladder-like structure	Oral
702	Symposium 6: Functional Thin Films (FTF)	Seeger, Stefan; Oliveira, Sandro; Artus, Georg; Saddiqi, Naeem	The DAGS-Chemistry: Droplet Assisted Growth and Shaping for Synthesis of Polymeric Nano- And Microstructures	Oral
703	Symposium 6: Functional Thin Films (FTF)	HENRRANDEZ PADRON, GENOVEVA BLANCO HERNANDEZ, ALEJANDRA	DEVELOPMENT OF HYBRID FILMS BY RECYCLED POLYSTYRENE	Poster
704	Symposium 6: Functional Thin Films (FTF)	Lopez Medina, Javier Alonso Portelles, Jorge Ortiz Atondo, Axel Agustin Huerta Salcedo, Juan Antonio Soto, Gerardo Tiznado Vázquez, Hugo Farías Sánchez, Mario	Electrical and Optical Properties in Ultrathin Capacitors Base on Al <sub>2</sub> O <sub>3</sub> – Y <sub>2</sub> O <sub>3</sub> Growth Via Atomic Layer Deposition	Poster
705	Symposium 6: Functional Thin Films (FTF)	Lopez Medina, Javier Alonso Marquez, Heriberto Borbon Nuñez, Hugo Alejandro Farías Sánchez, Mario Tiznado Vázquez, Hugo Soto Herrera, Gerardo	Non-quarter-wave dielectric mirror prepared by thermal atomic layer deposition	Poster
706	Symposium 6: Functional	Guan, Xinchun (1,2);	Study on compatibility between thick-film	Oral



	Thin Films (FTF)	Wen, Ming (1,2); Li, Hui (1,2); Ou, Jinping (1,2)	resistors and fluorophlogopite glass-ceramic substrate	
707	Symposium 6: Functional Thin Films (FTF)	Gu, Zhi-Gang	Epitaxial Growth and Application of Oriented Metal-Organic Framework Thin Film	Oral
708	Symposium 6: Functional Thin Films (FTF)	Li, Sishi (1,2); Song, Gongsheng (1,2); Yang, Yanpeng Pan, Chunxu (1,2)	Preparation of Metal-Gr Composite Coatings via Electro-plating for High Corrosion Resistances	Invited
709	Symposium 6: Functional Thin Films (FTF)	Huran, Jozef (1,5); Bohacek, Pavol Sasinkova, Vlasta Kleinova, Angela Mikolasek, Miroslav Kobzev, Alexander P. Sekacova, Maria Arbet, Juraj	Amorphous silicon carbide thin films doped with P or B for the Photoelectrochemical water splitting devices	Oral
710	Symposium 6: Functional Thin Films (FTF)	Huran, Jozef (1,2); Balalykin, Nikolay I. Sasinkova, Vlasta Kleinova, Angela Nozdrin, Mikhail A. Kobzev, Alexander P. Kovacova, Eva	N-doped nanostructured carbon very thin films on quartz and sapphire substrate: Photo-electron emission properties	Poster
711	Symposium 6: Functional Thin Films (FTF)	Behera, Ajit	NiTi thin film shape memory alloys: A Smart Materials	Invited



712	Symposium 6: Functional Thin Films (FTF)	LAI, Wen-Yong	Printable Conductive Thin Films for Flexible Electronics	Invited
713	Symposium 6: Functional Thin Films (FTF)	Juha, Libor	Radiation processing of functional materials with XUV/x-ray laser pulses	Oral
714	Symposium 6: Functional Thin Films (FTF)	Zakrzewska, Katarzyna Ewa Maziarz, Wojciech Radecka, Marta Mazur, Michał Wojcieszak, Damian Kaczmarek, Danuta	CuO/TiO <sub>2</sub> p-n thin film nanoheterostructures for gas sensing applications	Oral
715	Symposium 6: Functional Thin Films (FTF)	Basu, Aviru Kumar; Bhattacharya, Shantanu	Study of p-type and n-type behaviour of fast response-recovery rGO- α-Fe <sub>2</sub> O <sub>3</sub> based acetic acid sensor	Oral
716	Symposium 6: Functional Thin Films (FTF)	Shivakumar, Kilingaru I. Kapusciński, Szymon Jasiński, Marcin Cigl, Martin Szczytko, Jacek Monobe, Hirosato Pociecha, Damian Kaszynski, Piotr (1,2,6)	Functional materials derived from exceptionally stable π-delocalized radicals	Oral
717	Symposium 6: Functional Thin Films (FTF)	Gu, Shulin; Zhu, Shunming; Liu, Dongyang; Zhao, Weikang; Hao, Licai; Tang, Kun;	Low temperature Growth and Characterization of GaN Films via Local Nitrogen Plasma Metalorganic Chemical Vapor Deposition	Oral



		Ye, Jiandong; Zheng, Youdou		
718	Symposium 6: Functional Thin Films (FTF)	Hsieh, Jang- Hsing Wu, S. H. Li, C. Lin, Y. C.	Preparation and Characterization of horizontally-aligned porous Ta, TaON, and Ta <sub>2</sub> O <sub>5</sub> films synthesized by co-sputtering and de- alloying approach	Oral
719	Symposium 6: Functional Thin Films (FTF)	Demirci, Musa Bagci, Mehmet	INVESTIGATION OF THERMAL BARRIER COATINGS BOND AND TOP COAT HIGH TEMPERATURE SOLID PARTICLE EROSION RESISTANCE	Oral
720	Symposium 6: Functional Thin Films (FTF)	Yu, Zhijia	Fabrication of Super- Hydrophobic Micro-Tube and Studies on Water Convective Heat Transfer in the Micro-Tube	Oral
721	Symposium 6: Functional Thin Films (FTF)	Clark, Woodrow	Thin Solar Film --- ALL Solar Powered Cars	Invited
722	Symposium 6: Functional Thin Films (FTF)	Tajuddin, Muhammad Hanis (1,2); Yusof, Norhaniza (1,2); Wan Salleh, Wan Norharyati (1,2); Ismail, Ahmad Fauzi (1,2); Jaafar, Juhana (1,2); Aziz, Farhana (1,2)	Tailoring the properties of polyamide thin film membrane with layered double hydroxide nanoclay for enhancement in water separation	Oral
723	Symposium 6: Functional Thin Films (FTF)	Mahmood, Waqar Thomas, Andrew	Pronounced impact of Te- enrichment on physical properties of ZnTe thin	Oral



		ullah, Saif Butt, Sajid	films for solar cell applications	
724	Symposium 6: Functional Thin Films (FTF)	Shougaijam, Biraj Ngangbam, Chitralkha Lenka, Trupti Ranjan	Investigation of Au Nanoparticle assisted TiO <sub>2</sub> Nanowires for Solar Cell Applications	Oral
725	Symposium 6: Functional Thin Films (FTF)	Chauhan, Vishnu Kumar, Vikas Koratkhar, Nikhil Kumar, Rajesh	Influence of 120 MeV Ti <sup>9+</sup> ion beam induced modification on structural, optical, and surface morphological properties of nanocrystalline ZnO thin films grown by Atomic Layer Deposition	Oral
726	Symposium 6: Functional Thin Films (FTF)	Annamalai, Jegan	Influence of pulse reverse current electroplating parameters of Ni - nano Al <sub>2</sub> O <sub>3</sub> composite coatings on AISI 304 stainless steel	Oral
727	Symposium 6: Functional Thin Films (FTF)	Zhao, Ke-Qing	Novel Pi-Electron Molecular Scaffolds for Mesophase Semiconductors	Oral
728	Symposium 6: Functional Thin Films (FTF)	Erdogan, Nursev Astarlioglu, Aziz Taner Ozbay, Salih Erden, Fuat Ece, Remzi Ecmel Ozdemir, Mehtap Aygün, Gulnur Ozyuzer, Lutfi	Transparent and Conductive ITO/Au/ITO Multilayer Thin Films with Enhanced EMI Shielding Properties	Oral
729	Symposium 6: Functional Thin Films (FTF)	Liu, Bo	Graphite phase carbon nitride based membrane for achiral/chiral separation	Oral
730	Symposium 6: Functional Thin Films (FTF)	Tao, Ping (1,2); Wang, Yiming cheng, Henry Cai, Hongling	Modulation of the Electronic Structure of Ge <sub>1-x</sub> Sn <sub>x</sub> alloy films by Strain and Composition	Poster



		Zhang, Fengming Wu, Xiaoshan		
731	Symposium 6: Functional Thin Films (FTF)	Huang, Shisong (1,2); Qian, Bin Zhang, Zhe Ji, Qing Zhang, Fengming Wu, Xiaoshan	Transport properties in YBa <sub>1.85</sub> Eu <sub>0.15</sub> Cu <sub>3</sub> O <sub>7-<math>\delta</math></sub> / La <sub>0.67</sub> Ca <sub>0.33</sub> MnO <sub>3</sub> superlattices grown on (001) SrTiO <sub>3</sub> substrate	Poster
732	Symposium 6: Functional Thin Films (FTF)	Shahot, Khaled Muftah	Investigation of Activated Carbon Coating in the Adsorption Process of Methylene Blue from Aqueous Solution	Oral
733	Symposium 6: Functional Thin Films (FTF)	Cheng, Shao- Dong (1,2); Cheng, Sheng Lu, Lu Liu, Ming Mi, Shao-Bo	Structural investigation of (Pr <sub>0.5</sub> Ba <sub>0.5</sub> MnO <sub>3</sub> ) <sub>0.8</sub> :(Ce O <sub>2</sub> ) <sub>0.2</sub> nanocomposite films prepared on (001) (La,Sr)(Al,Ta)O <sub>3</sub> substrates	Poster
734	Symposium 6: Functional Thin Films (FTF)	Afzal, Ali; Khan, Mydah; Mumtaz, Aroobah; Ali, Ehsan; Javid, Amjad; Qadir, M. Bilal	Coating of Citrus Cellulosic Extracted from Citrus Waste on Fabric for Technical Applications	Oral
735	Symposium 6: Functional Thin Films (FTF)	Wu, Sheng- Qiang; Jin, Xiao-Wei; Cheng, Sheng; Lu, Lu; Liu, Ming; Mi, Shao-Bo	Temperature-dependent B-site ordering in double- perovskite La <sub>2</sub> NiMnO <sub>6</sub> films	Oral
736	Symposium 6: Functional Thin Films (FTF)	Zhou, Zhen; Li, Jing-Feng	Thickness-dependent phase transition and piezoelectricity in lead-free Bi <sub>0.5</sub> Na <sub>0.5</sub> TiO <sub>3</sub> -BaTiO <sub>3</sub> epitaxial films	Oral



737	Symposium 6: Functional Thin Films (FTF)	Zhang, Wenxu; Zeng, Huizhong; Peng, Bin; Zhang, Wanli	The Inverse Rashba Edelstein Effect at the conducting SrTiO <sub>3</sub> surface	Poster
738	Symposium 6: Functional Thin Films (FTF)	Chen, Zimin; Li, Zeqi; Wang, Gang	Heteroepitaxy of $\epsilon$ -Ga <sub>2</sub> O <sub>3</sub> thin films by metal organic chemical vapor deposition	Poster
739	Symposium 6: Functional Thin Films (FTF)	Chen, Xiaoyang; Yu, Ping	The effects of Ar/O <sub>2</sub> ratio on the structure and properties of CaZrO <sub>3</sub> /Ca <sub>0.15</sub> Zr <sub>0.85</sub> O <sub>1.85</sub> composite films	Poster
740	Symposium 6: Functional Thin Films (FTF)	Figuroa, Jose; Cao, Yunqi; Pastrana, Juan; Sepulveda, Nelson	Time-response limits on vanadium dioxide micrometer-sized actuators	Oral
741	Symposium 6: Functional Thin Films (FTF)	Zhu, Hong (1,2); Wang, Haoru Lin, Guankai Cai, Xuhui Xie, Xiangnan	Helium doping in manganite films via magnetron sputtering in He-mixed atmosphere: A simple strategy for uniaxial strain engineering	Oral
742	Symposium 6: Functional Thin Films (FTF)	Qie, Zihan Gao, Wenjing Cao, Qinglong Lei, Qiao (1,2,3)	Effect of Maillard reaction on barrier and antioxidant properties of whey protein isolate/pullulan based edible films	Poster
743	Symposium 6: Functional Thin Films (FTF)	Lee, Jason Kuo, TaiChen	A novel method to fabricate a thick film Cu electrode fired in air	Oral
744	Symposium 6: Functional Thin Films (FTF)	Li, Fang; Wang, Sansheng	Vortex manipulation with dots and antidots on superconductivity of REBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-<math>\delta</math></sub> films growth by trifluoroacetate metal organic deposition method	Poster
745	Symposium 6: Functional	Abouarab, Hanan Kassry, Amal	Optical Properties and Microstructure of Ti, TiNi	Oral





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**19-22 August**

	Thin Films (FTF)	El-Mahallawi, Iman Salah Eldin (1,2)	and Al Thin Films before and after Oxidation	
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