

23rd/July/2024 Room A (Concert Hall)

Time	No.	Title	Authors	Affiliations
Chair; Satoshi Horikoshi (Sophia University)				
9:40-10:30	KL1	Strengthening Mechanism of Microwave-Matter Interaction—the Application of Microwave Technology in Petroleum and Environmental Fields	Hui Shang, Xiayu Fan, Jianchen Sun, Jie Yang	China University of Petroleum (Beijing)
Chair; Xin Gao (Tianjian University)				
10:50-11:30	IS1	Microwave-initiated heterogeneous catalysis for plastic waste upcycling	Xiangyu Michael Jie	Queen Mary University of London
11:30-11:50	OA101	Evaluation of Hotspots in Catalyst-beds under Microwaves based on Thermodynamic Equilibrium of Ammonia Synthesis	Fuminao Kishimoto, Takuya Suguro, William James Movick, Kazuhiro Takanabe	The University of Tokyo
11:50-12:10	OA102	Boosting Catalytic Methane Activation by Microwave Heating	José Palomo, Atsushi Urakawa	TU Delft
12:10-12:30	OA103	Ultrafast catalytic pyrolysis of lignocellulosic biomass by a millimeter-wave-enhanced electric field and alloy catalysts	Shuntaro Tsubaki, Sihnya Furukawa, Satoshi Fujii, Yasuhiro Niwa, Wang-Jae Chun	Kyushu University, Osaka University, National Institute for Materials Science, High Energy Accelerator Research Organization, International Christian University
Chair; Atsushi Urakawa (TU Delft)				
14:30-14:50	OA104	Design of atomic scale selective heating of metal cation in zeolites for innovative microwave catalysis	Ryo Ishibashi, Fuminao Kishimoto, Kazuhiro Takanabe	The University of Tokyo
14:50-15:10	OA105	Microwave enhancement by ZnO nanowire and its application to biocatalytic reaction acceleration	Ryuku Oba, Shuntaro Tsubaki, Takuro Hosomi, Takeshi Yanagida, Hisahiro Einaga, Noriyuki Igura	Kyushu Univ., University of Tokyo
15:10-15:30	OA106	Microwave-assisted acceleration of catalytic pyrolysis of lipid by using Na-ZSM-5 and in situ XRD of the catalyst	Shunsuke Ota, Shuntaro Tsubaki, Hisahiro Einaga, Jun Fukushima, Kenichi Kimijima, Noriyuki Igura	Kyushu University, Tohoku University, High Energy Accelerator Research Organization
Chair; Armando T Quitain (Kumamoto University)				
15:50-16:10	OA107	Mechanistic Insights into Microwave-Assisted Thermal Catalysis for Shale Gas Upgrade	Yeonsu Kwak, Quentin Kim, C. Wang, Kewei Yu, Weiqing Zheng, Dionisios G. Vlachos	University of Delaware
16:10-16:30	OA108	Microwave and Visible Light-Assisted Polymeric Nickel-Iridium Dual-Catalyzed Amination of Aryl Chlorides	Abhijit Sen, Valerii Bukhanko, Heeyoel Baek, Aya Ohno, Atsuya Muranaka, Yoichi M. A. Yamada,	RIKEN Center for Sustainable Resource Science
16:30-17:10	IS3	Application of Microwave Energy in the Production of Carbon Nanotubes (CNTs) through Microwave Enhanced Chemical Vapor Deposition and CNT Modification as Bifunctional Catalyst.	Joseph Auresenia, Francis Ian M. Tobias, Jan Patrick G. Si, Mark Angelo T. Tionson, Cyril Benedict Lugod, Ma. Cristina Macawili, Armando Quitain, Tesuya Kida	De La Salle University Faculty of Advanced Science and Technology Kumamoto University,
Chair Georgios Dimitrakis (Notingham University)				
17:20-18:10	KL2	Current Status and Future of Sustainable Microwave Heating Technologies in India	Parag Prakash Sutar	National Institute of Technology Rourkela

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Time	No.	Title	Authors	Affiliations
Chair; Cristina Leonelli (Universita' degli Studi di Modena e Reggio Emilia)				
9:30-10:20	KL3	IMPI – Past, Present and Future Influence on the Advancement of Microwave and RF Power Applications	John F Gerling	Gerling Consulting, Inc.
Chair; Noboru Yoshikawa (Tohoku University)				
10:40-11:00	OA201	A Device for Effectively Vaporizing Concentrated Sulphuric Acid by Direct Microwave Heating	Sean H.H. Teng, Steven M.H. Tsao, Eugene Y.C. Tsai, Bob, H.Y. Chen	Wave Power Technology Inc.,
11:00-11:20	OA202	Decarbonization and Ultra-rapid Heating using Microwaves	Hideoki Fukushima, Yasuhisa Ushida	Nagoya University
11:20-11:40	OA203	Enhancement of Microwave Heating Using Spiral Coil	Yoshio Nikawa, Keiichi Akasaki, Hidehiro Fukuda, Nobumori Kobayashi	Kokushikan University, Gemmatsu Corporation, Recovery Advisor Inc., T.I.T. ELECTRONICS Co., Ltd.

11:40-12:00	OA204	Noncontacting Coaxial Rotary Joint for Microwave Ovens	Vladimir Bilik	S-TEAM Lab
12:00-12:20	OA205	3D Printing of Lightweight and Metalized Plastic Microwave Components	Nanya Li ,Qiang Cheng, S. K. Ong	Nanjing University of Aeronautics and Astronautics, Southeast University, National University of Singapore
Chair; John Gerling				
14:30-14:50	OA206	Development of Solid-State Microwave Devices and Their Application to Microwave Chemical Processes.	Takeko Matsumura, Shozo Yanagida, Yuichi Utsumi, Mitsuyoshi Kishihara, Keisuke Suzuki, Masateru Nishioka, Hirokazu Iida	Minerva Light Laboratory L.L.C., Osaka University, University of Hyogo, Okayama Prefectural University, Kyushu Institute of Technology, Minama Science, Kanto Gakuin University
14:50-15:30	IS4	Solid State RF Energy Solutions are Shaping The Future	Mark Murphy	Mini-Circuits
Chair Satoshi Fujii (National Institute of Technology, Okinawa College)				
15:50-16:10	OA207	Diamond Dielectric Measurements Using an X-band Split Dielectric Resonator	Jerome Alexander Cuenca, Soumen Mandal, Jaspa Stritt, Xiang Zheng, James Pomeroy Martin Kuball, Adrian Porch, Oliver Aneurin Williams	Cardiff University University of Bristol,
16:10-16:50	IS5	High Power GaN Amplifiers for Microwave Heating	Hifumi Noto, Koji Yamanaka	Mitsubishi Electric Corporation
Chair; Fuminao Kishimoto (University of Tokyo)				
17:00-17:50	KL4	Chemical Process Intensification via Microwave-Driven Dynamic and Cyclic Thermal Operation	Georgios D. Stefanidis	National technical University of Athens

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Time	No.	Title	Authors	Affiliations
Chair; Hideoki Fukushima (Nagoya University)				
9:30-10:20	KL5	Induction Heating and Maxwell's Equations	Jun-ichi Sugiyama	National Institute of Advanced Industrial Science and Technology (AIST)
Chair; Jose Manuel Catala Civera (Universitat Politècnica de València)				
10:40-11:20	IS6	Sensing applications using microwaves for industrial purposes	Seitaro Kon	National Institute of Advanced Industrial Science and Technology (AIST)
11:20-11:40	OA301	Accurate simulation and experimental measurement of the process of heating water by microwave	Kama Huang, Song Jia, Song Wang	Sichuan University
11:40-12:00	OA302	Dielectric Modeling, Measurement and	Tao Hong	China West Normal University
12:00-12:20	OA303	Temperature Measurement Using MRI in Microwave Heating	Yoshio Nikawa	Kokushikan University
Chair; Takashi Nakamura (AIST)				
13:30-14:10	IS7	Development of Single Mode (TM010 standing wave) Microwave Reactor: Applications for Gas Phase Catalytic Reactions	Masateru Nishioka	Minamo Corporation
14:10-14:30	OA304	Modeling and validation of the continuous flow microwave heating of orange juice	Dorin Boldor, Guilherme Russo, Jorge Andrey Wilhelms Gut	Louisiana State University , Universidade de São Paulo
14:30-14:50	OA305	Quantitative Verification of Microwave Heating based on IR/FIR Spectrum Analysis	Shozo Yanagida, Takeko Matsumura, Hirokazu Iida	M3 Laboratory Inc., Minerva Light Laboratory, Kanto-Gakuin Univ.

23rd/July/2024 Room B (Lecture Room 2)

Time	No.	Title	Authors	Affiliations
Chair; Guido Link (KIT)				
10:50-11:10	OB101	Study on the Effect of Microwave Action on the Extraction Efficiency of Tea Polyphenols	Zhengming Tang, Dan Li, Tao He, Dezhi Gou, Nouman Rasool, Tao Hong, Kama Huang	China West Normal University
11:10-11:30	OB102	Experimental Research of Microwave Affect Conductivity of Aqueous Solution of Carnosine and Zinc Chloride	Dezhi Gou	China West Normal University
11:30-11:50	OB103	A novel approach for fast and efficient numerical simulation of microwave heating in liquids during mixing	Bhupinder Singh, Georgios Dimitrakis	University of Nottingham
11:50-12:10	OB104	Numerical Simulation of Microwave Heating of Low Moisture Food in a 915 MHz Cavity for Dielectric Properties Estimation	Olivier Rouaud, Ana-Caroline Frabetti, Tristan Garnault, Hugo Curto, Alexandre Thillier, Lionel Boillereaux, Sébastien Curet	Oniris, Nantes Université, CNRS, GEPEA, SAIREM
12:10-12:30	OB105	Revealing the Quantitative Regulation Rules of Microwave Hotspots in Liquid-Solid Systems via Microscale Heat Transfer Model and In-situ Fluorescence Spectroscopy	Kai Liu, Hong Li, Zhenyu Zhao, Xin Gao	Tianjin University Haihe Laboratory of Sustainable Chemical Transformations,
Chair; Mariana Patrascu (National University of Science and Technology Politehnica Bucharest)				
14:30-14:50	OB106	Permittivity/Conductivity of NiO and Microwave Heating	Noboru Yoshikawa	Tohoku University
14:50-15:10	OB107	Separated Microwave E/H- field Heating of Nano/Micro Metal Particles	Noboru Yoshikawa	Tohoku University
15:10-15:30	OB108	Study on Characteristic of Microwave Deep Drying for PET Materials with Adjustment Method	Chongwei Liao, Rong Tang, Changjun Liu	Sichuan University
Chair; Hiroki Shimizu (AIST)				
15:50-16:10	OB109	Microwave Heating and Curing of Highly	Jing Zhou, Yingguang Li	Nanjing University of Aeronautics
16:10-16:30	OB110	Effect of Ozone Treatment on Promoting Carbon Combustion and Enhancing its Microwave Heating Behavior	Zhihai Huang, Hajime Hojo, Hisahiro Einaga	Kyushu University
16:30-16:50	OB111	Improvement of Temperature Uniformity during Microwave Heating of CFRP Composite using Thermosensitive Resonators	Di Li, Yingguang Li, Jing Zhou	Nanjing University of Aeronautics and Astronautics,
17:00-17:20	OB112	Influence of Temperature on Microwave Heating of Cellulose with Magnetite under Steam Atmosphere	Hiroyuki Tamiya, Sadatsugu Takayama, Keisuke Mukai, Juro Yagi	Kyoto University, National Institute for Fusion Science

24th/July/2024 Room B (Lecture Room 2)

Time	No.	Title	Authors	Affiliations
Chair; Yuta Nishina (Okayama University)				
10:40-11:00	OB201	Validation Testing of a Near-Field Focused 5.8 GHz Phased-Array Antenna to be Used for Weed Control	David Tomsu, Adel Omrani, Guido Link, John Jelonnek, Steffen Probst, Marcel Mallah	Karlsruhe Institute of Technology, Fricke and Mallah Microwave Technology GmbH
11:00-11:20	OB202	Microwave-Assisted Carbazole Dendrimer Synthesis and Application in Luminescent Materials	Ken Albrecht	Kyushu University
11:20-11:40	OB203	Study of Microwave Effect for an Enzymatic Reaction; Investigation of the Relationship between Complex Permittivity and Microwave Effects	Izuru Nagashima, Jun-ichi Sugiyama, Hiroki Shimizu	National Institute of Advanced Industrial Science and Technology (AIST), Nanomaterial Research Institute (NMRI)
11:40-12:00	OB204	Exploring the Microwave-Induced Conductivity Enhancement in Solid-State Ionic Materials	J. M Catalá-Civera, S. Román-Sánchez, A. Domínguez-Saldaña, L. Bacete-Barchin, B. García-Baños, M. Balaguer, J. M. Serra	Universitat Politècnica de Valencia
12:00-12:20	OB205	Microwave Specific Effect on Organic Reactions	Tohru Yamada	Keio University
Chair; Juming Tang (Washington State University)				

14:30-14:50	OB206	Sterilization of spore-forming <i>Bacillus subtilis</i> by a synergy of spore germination and microwaves	Seita Murakami, Satomi Ihara, Miu Okabayashi, Shuntaro Tsubaki, Noriyuki Igura, Yoshimitsu Masuda	Kyushu University
14:50-15:10	OB207	The Effect of Chemical Sterilization of Microorganisms under Microwave Irradiation	H. Kawashima, S. Yoshitomi, R. Baba, M. Koshimura, S. Ohuchi, T. Yamasaki	National Institute of Technology, Sasebo College, Kyushu Institute of Technology
15:10-15:30	OB208	The Effect of Microwave Irradiation on Intercellular Chemical Communication of Microbial Cultivation	S. Yoshitomi, R. Baba, M. Koshimura, S. Ohuchi, T. Yamasaki	National Institute of Technology, Sasebo College, Kyushu Institute of Technology
Chair; Parag Prakash Sutar (National Institute of Technology Rourkela)				
15:50-16:10	OB209	Study on Shape of Heated Sample for Dualband Electromagnetic Coupling-Type Microwave Heating System	Shimpei Katsuta, Tomohiko Mitani, Naoki Shinohara	Kyoto University
16:10-16:30	OB210	Enhanced Chaperone Protein Expression of <i>Bacillus subtilis</i> Spores by Microwave-assisted Sterilization	Ibrahim Maamoun, Satomi Ihara, Yoshimitsu Masuda, Shuntaro Tsubaki, Noriyuki Igura	Kyushu University
16:30-16:50	OB211	Microwave-Assisted Carbonization of Wood Biomass	Yuta Nishina	Okayama University

25th/July/2024 Room B (Lecture Room 2)

Time	No.	Title	Authors	Affiliations
Chair; Dorin Boldor (Louisiana State University)				
10:40-11:00	OB301	Effect of Ultrasound-assisted Osmotic pre-treatment on Microwave Drying Characteristics and Quality of Radish Slices	Chinglen Leishangthem, Parag Prakash Sutar	National Institute of Technology, Rourkela
11:00-11:20	OB302	Efficient Real time-drying monitoring system for Industrial-Scale Continuous Microwave Dryer of Agricultural Products	Piyush Sharma, Arun Prasath Venugopal, Parag Prakash Sutar	National Institute of Technology Rourkela
11:20-11:40	OB303	Elucidation of plant growth promotion mechanism by microwave irradiation	K. Yamakawa, M. Samezima, R. Murata, N. Suzuki, S. Horikoshi	Sophia University
11:40-12:00	OB304	Kinetic Evaluation of Microwave-Assisted Chemical Reaction	Ryunosuke Baba, Shokichi Ohuchi	Kyushu Institute of Technology
Chair; Joseph Auresenia (De La Salle University)				
13:30-13:50	OB306	Microwave-assisted selective heating of W/O emulsions and its application to microreactor for enzymatic reaction	Md Azizul Haque, Natsumi Takeshita, Shuntaro Tsubaki, Takeharu Sugiyama, Noriyuki Igura	Kyushu University
13:50-14:10	OB307	In-situ Biodiesel Production from Chinese Tallow Tree Seeds in a Microwave Batch System with Hexane as Co-Solvent	Dorin Boldor, Mohamad Barekati-Gourdazi, Cristina Mirela Sabliov, Divine Bup Nde	LSU Agricultural Center, LSU Agricultural Center AESC, Louisiana State University
14:10-14:30	OB308	Microwave Irradiation Effects on Amide Bond Formation for the Synthesis of Pyrrole-Imidazole Polyamide	Hirokazu Iida, Mika Fukatsu, Motoyuki Kamata, Kie Takahashi, Takeko Matsumura	Kanto Gakuin University, Minerva Light Laboratory. Ltd
14:30-14:50	OB309	The techno-economic and life cycle assessment of microwave energy applied in chemical engineering	Na Wang, Zhenyu Zhao, Hong Li, Xin Gao	Tianjin University

23rd/July/2024 Room C (Lecture Room 4)

Time	No.	Title	Authors	Affiliations
Chair; Marilena Radoiu				
10:50-11:10	OC101	Limit of Detection Extensions in Microwave-Enhanced Laser-Induced Breakdown Spectroscopy	JOEY KIM TUMBALI SORIANO, Yuji Ikeda	i-Lab. inc.
11:10-11:30	OC102	Thorium Nuclear Reactor and Microwaves Processing	Motoyasu Sato, Aki Fujita, Kyouichiro Kashimura	Fusion Fission Powers C. Ltd., Chubu University
11:30-11:50	OC103	Scaling up of High Temperature Microwave Processing	Keiichiro Kashimura	Chubu University,
Chair; Satoshi Horikoshi				
11:50-12:10	OC104	Hydrogen Production using Microwave-Assisted Pyrolysis	Marilena Radoiu, Ariel Mello	Microwave Technologies Consulting
12:10-12:30	OC105	Microwave-assisted Combustion of Biological Material	Oliver Eckstein, Robert Mueller, Klaus Martin Baumgaertner, Markus Dingeldein, Amandine Guissart, Jens Hofmann, Joachim Schneider, Andrew Charles Dorn	Muegge GmbH, Neo Joule B.V.
Chair; Keiichiro Kashimura (Chubu University)				
14:30-14:50	OC106	Synthesis of SiC Nanosheets by Microwave Heating of SiO _x /rGO composites	Dai Mochizuki, Yuki Isobe	Tokyo Denki University
14:50-15:10	OC107	Dephosphorization behaviour of High Phosphorus Containing Iron Ore using Microwave Heating	Ko-ichiro Ohno, Tatsuya Kon, Jiazhan Liu, Kenichi Higuchi	Kyushu University, Nippon Steel
15:10-15:30	OC108	Hydrogen Reduction of Tungsten Oxide with Microwave Rapid Heating.	Ayana Ono, Alex Ichiro Fujiwara, Jiazhan Liu, Tatsuya Kon, Ko-ichiro Ohno	Kyushu University, Munakata High School
Chair; Dai Mochizuki (Tokyo Denki University)				
15:50-16:10	OC109	Microwave Heating of Glass	Tamara Golubeva, Stefan Knoche, Volker Ohmstede, Gunter Weidmann, Stefan Bauer, Michael Hahn, Janina Costard	Schott AG
16:10-16:30	OC110	Comparative Analysis of Microwave Heating Effects on Ion-Implanted Silicon Wafers	Satoshi Fujii, Akira Uedono	National Institute of Technology, Okinawa college, University of Tsukuba
16:30-16:50	OC111	Glycerolysis of polyethylene terephthalate using microwave irradiation	K. Ikenaga, K. Fukunaga, T. Tsuboi, T. Sasaki, K. Kusakabe	Sojo University, Sakamoto Yakuin Kogyo Co., Ltd.
17:00-17:20	OC112	Toward Microwave Decomposition and Recycling of Wind Power GFRP Blades!	Kazutoshi Ikenaga	Sojo University

24th/July/2024 Room C (Lecture Room 4)

Time	No.	Title	Authors	Affiliations
Chair; Seitaro Mitsudo (University of Fukui)				
10:40-11:00	OC201	Carbon-Recycled Silicon Carbide Synthesis by Microwave Combustion Process	Jun Fukushima, Hirotsugu Takizawa	Tohoku University
11:00-11:20	OC202	Fungal Mycelia as Green Precursors: Microwave Generation of Carbon Quantum Dots	James Watts, Q. Li	Griffith university
11:20-11:40	OC203	A selection chart for microwave sol-gel synthesis of TiO ₂ nanoparticles	Paolo Veronesi, Elena Colombini, Cristina Leonelli	University of Modena and Reggio Emilia
11:40-12:00	OC204	Microwave Synthesis of Metastable Phase In Li-Sn-O Ternary System Using Microwave High-Throughput System	Takumi Saito, Jun Fukushima, Hirotsugu Takizawa	Tohoku University
12:00-12:20	OC205	The synthesis of three-dimensional mesoporous zeolite materials assisted by microwave heating	Qiuyan Ding, Hong Li, Yilai Jiao, Xin Gao	Tianjin University, Institute of Metal Research, Chinese Academy of Sciences
Chair; Ken Albrecht (Kyushu University)				
14:30-14:50	OC206	Synthesis of Glycerol tert-Butyl Ether Using Sago Hydrochar as Carbon-Based Catalyst Under Microwave Conditions	Jakaria Bin Rambli, Armando T Quitain, Tetsuya Kida	Kumamoto University

14:50-15:10	OC207	Microwave-Assisted Hydrothermal Synthesis and Water-Tolerant Superbase Catalysis of Niobium Oxide Cluster	Soichi Kikkawa, Yu Fujiki, Vorakit Chudatemiya, Hiroki Nagakari, Kotaro Higashi, Tomoya Uruga, Syuntaro Tsubaki, Naoki Nakatani, Seiji Yamazoe	Tokyo Metropolitan University, Japan Synchrotron Radiation Research Institute, Kyusyu University
15:10-15:30	OC208	Enhanced Continuous VOC Air Stream Purification through Microwave-Assisted Catalytic Combustion	Xuerui Zheng, Hajime Hojo, Hisahiro Einaga	Kyushu University
Chair; Georgios D. Stefanidis (National technical University of Athens)				
15:50-16:10	OC209	Microwave-assisted Heterogeneous Catalysis and in-situ Detection of Carbon Deposition	Koji Kuramoto, Tomone Sasayama, Fumihiko Kosaka, Masateru Nishioka	National Institute of Advanced Industrial Science and Technology (AIST)
16:10-16:30	OC210	Catalytic Ammonia Cracking Using Microwave	Jun Woo Park, Baek Kyoung Shin, Hyun Seok Jang, Kyeong Min Park, Jeongbae Kim, Sang Jun Park	ECOPRO HN
16:30-16:50	OC211	Food Waste: B-Hydroxyapatite as a Source of New Chemical Platforms for Biocatalysts Synthesis	Mariana Patrascu, A. Magdziarz, C. Marculescu	National University of Science and Technology POLITEHNICA Bucharest, AGH University of Krakow

25th/July/2024 Room C (Lecture Room 4)

Time	No.	Title	Authors	Affiliations
Chair; Koji Yamanaka (Mitsubishi Electric Corporation)				
10:40-11:00	OC301	The Electromagnetic Field Simulation of Microwave Spatial Power Combining for Pyrolysis of Food Waste	Rie Honda, Shuntaro Tsubaki, Noriyuki Igura, Satoshi Fujii	Kyushu University, National Institute for Materials Science
11:00-11:20	OC302	Theory and Applications of Microwave Separated Field Materials Processing	Yi Zhang, Chaoxia Zhao, Damin Gou, Lingfeng Jiang, Hao Xu, Qiulin Wang, Tingfang Luo, Chao Huang, Kama Huang	Sichuan University, Xihua University, Chengdu University of Technology, Chengdu Fenyu Electronic Technology Co., Ltd,
11:20-11:40	OC303	Mechanistic Insights of Microwave Induced MOFs nucleation via Molecular Probes with Thermosensitive Fluorescence	Zhenyu Zhao, Xin Gao	Tianjin University
11:40-12:00	OC304	Multiphysics Simulation of Microwave-Assisted Bulk Metal Melting with Variation in Susceptor Materials	Shruti C Bhatt, Nilesh D Ghetiya	Nirma University
12:00-12:20	OC305	Microwave Assisted Recycling of Spent Lithium Battery	Jing Sun, Wenlong Wang, Zhanlong Song	Shandong University
Chair; Xiangyu Michael Jie (Queen Mary University of London)				
13:30-13:50	OC306	Fundamental Research on Microwave Thermal Decomposition of Copper Wiring Coating Materials	N. Hachisuga, S. Horikoshi	Sophia University
13:50-14:10	OC307	Microwave Decomposition of Polyester-Cotton Blended Fibers	Kazutoshi Ikenaga, Ta-ichi Kinjo, Koshiro Kuwamoto, Emika Ikeda, Katsuki Kusakabe	Sojo University
14:10-14:30	OC308	Acceleration of CO ₂ desorption by radiofrequency selective heating of polyethyleneimine	Rikako Hara, Shuntaro Tsubaki, Hidetaka Yamada, Noriyuki Igura	Kyushu University, Kanazawa University
14:30-14:50	OC309	Microwave-Assisted Heating for Dehydration of Ethanol to Ethylene using HPW/SBA-15	Zitao Ni, Hajime Hojo, Hisahiro Einaga	Kyushu University

23rd/July/2024 Room D (Lecture Room 5)

Time	No.	Title	Authors	Affiliations
Chair; Wu Li (Sichuan University)/Manabu Tanaka (Kyushu University)				
10:50-11:10	OD101	Why does Microwave Plasma CVD Produce Diamonds? Molecular Modeling Verification	Shozo Yanagida, Nobuko Kanehisa, Susumu Yanagisawa, Hirokazu Iida	M3 Laboratory Inc, University of the Ryukyus, Kanto-Gakuin Univ.
11:10-11:30	OD102	Simulation and Analysis of Chemical Vapour Deposition for H ₂ and CH ₄ : Exploring Growth Rates and Reaction Kinetics	Wencong Zhang, Yuqing Huang, Huacheng Zhu	College of Electronics and Information Engineering, Sichuan University, School of Electronics and Information Engineering, Guiyang University
11:30-11:50	OD103	Microwave Plasma Modelling for Heterogeneous Diamond Growth on III-Nitrides	Jerome Alexander Cuenca, Soumen Mandal, Oliver Aneurin Williams	Cardiff University
11:50-12:10	OD104	Investigation on Electrodeless Discharge during Microwave Assisted Pyrolysis Plastics induced by Iron-based Catalysts	Xi Shen, Zhenyu Zhao, Xin Gao	Tianjin University, National Engineering Research Center of Distillation Technology, Haihe Laboratory of Sustainable Chemical Transformations
12:10-12:30	OD105	Investigation of the Capabilities of a 5.8 GHz Microwave Plasma Source for Microchip Decapsulation	Amandine Guissart, Jens Hofmann, Joachim Schneider, Robert Mueller, Oliver Eckstein, Markus Dingeldein, Klaus Martin Baumgaertner	Muegge GmbH
Chair; Jun Fukushima (Tohoku University)				
14:30-15:10	IS2	Efficient and Stable Activation by Microwave Annealing of Nanosheet Silicon Doped with Phosphorus above Its Solubility Limit	Chun Hsiung Tsai, Chandrashekhar P. Savant P. Savant, Mohammad Javad Asadi, Yu Ming Lin, Ivan Santos, Yu Hsiang Hsu, Jeffrey Kowalski, Lourdes Pelaz, Wei Yen Woon, Chih Kung Lee, James C. M. Hwang,	National Taiwan University, Taiwan Semiconductor Manufacturing Company, Cornell University, University of Valladolid, DSG Technologies, Inc., National Central University, National Yang Ming Chiao Tung University
15:10-15:30	OD106	Study on Reduction Reaction Using Microwave and Radio-Frequency Plasma	Satoshi Fujii, Jun Fukushima	National Institute for Material Science, Tohoku University
Chair; Yoshio Nikawa (Kokushikan University)				
15:50-16:10	OD107	Investigation on Mechanism of Microwaves Discharge in Root Vegetables	Ryoya Ito, S. Horikoshi	Sophia University
16:10-16:30	OD108	Microwave-Induced Atmospheric Pressure Room-Temperature Plasma Jet at Atmospheric Pressure and Its Application in Oral Squamous Cell Carcinoma Treatment	Li WU, Wenting Qi, Xian Liu, Junwu Tao, Kama Huang	Sichuan University, University of Toulouse
16:30-16:50	OD109	A Measurement Method for Complex Permittivity of Microwave Plasma Based on BPNN	Xingxing Li, Ge Wang, Huacheng Zhu, Yang Yang	Sichuan University

24th/July/2024 Room D (Lecture Room 5)

Time	No.	Title	Authors	Affiliations
Chair; Fuminao Kishimoto (University of Tokyo)				
10:40-11:00	OD201	Carbon cycle model for plastics using microwave biodegradation with <i>Galleria mellonella</i>	Ryu Murata, Satoshi Horikoshi	Sophia University
11:00-11:20	OD202	Microwave Synthesis of Fluoride-based Solid Electrolyte BaSnF ₄	So Iwashita, Jun Fukushima, Hirotsugu Takizawa	Tohoku University
11:20-11:40	OD203	Microwave Specific Effect on Catalytic Asymmetric Diels-Alder Reaction	Tohru Yamada, Jun-ichiro Fukuzumi, Kanta Kawai	Keio University
11:40-12:00	OD204	Crystal Structure Analysis of Magnetic Oxide Sintered on Magnetic Field in Microwave Single Mode Cavity	Sadatsugu Takayama	National Institute for Fusion Science
Chair; Takashi Nakamura (AIST)				
14:30-14:50	OD205	Rapid Microwave Freeze-Drying of Liposome Solutions	Yo Kamikawa, Shuntaro Tsubaki, Mai Nakata, Etsuo Yonemochi, Noriyuki Igura	Kyushu University, Hoshi University

14:50-15:10	OD206	Sterilization of Bacillus subtilis using Microwaves and Heterogeneous Catalysts	Chiva Sum, Satomi Ihara, Ibrahim Maamoun, Shuntaro Tsubaki, Noriyuki Igura	Kyushu University
15:10-15:30	OD207	Microwave – Refractance Window Drying of Agricultural Products	Durgawati Durgawati, Parag Prakash Sutar, Qi Zhang	National Institute of Technology Rourkela, Yangzhou University
Chair; Yoshio Nikawa (Kokushikan University)				
15:50-16:10	OD208	Coupling Calculation of Electromagnetic Field and Thermal Field Based on Smoothed Particle Method	Hao Gu, Wenxiang Li, Huacheng Zhu, Yang Yang	Sichuan University
16:10-16:30	OD209	Stirring Effect on Electric-Heating Uniformity in a Microwave Reactor with an Sandwich Interlayer	Guangyuan Jin, Chunfang Song, Feihu Song, Jing Li, Ning Dai, Lingjun Wei	Jiangnan University
16:30-16:50	OD210	Multiphysics Modelling of Stationary Microwave Plasma and its Applications	Ge Wang, Yang Yang	Sichuan University

25th/July/2024 Room D (Lecture Room 5)

Time	No.	Title	Authors	Affiliations
Chair; Jun-ichi Sugiyama (AIST)				
10:40-11:20	J1	Long-term support of JEMEA since its inception and contribution to the management of the organization	Tohru Yamanaka	Microdenshi co.jp
11:20-12:00	J2	Contribution to the academic and social activity of JEMEA, Japan Society of Electromagnetic Energy Applications	Takeko Matsumura	Minerva Light Laboratory. Ltd
Chair; Hui Shang (China University of Petroleum (Beijing))				
13:30-13:50	OD301	Correlation equation with dimensionless number for microwave heating	R. Yakata, Y.Asakuma, A. Hyde, C. Phan	Kansai University, University of Hyogo, Curtin University
13:50-14:10	OD302	A Programmatic Research of Microwave In-Situ Thermal Recovery of Heavy Oil	Tao Liu	China University of Petroleum, Beijing
14:10-14:30	OD303	Development of an effluent free microwave assisted rotary drying cum peeling method for whole garlic bulbs	Sudarshanna Kar, Parag Prakash Sutar	NIT Rourkela IAS, SOADU