

# MMA2025 Detailed Program

Monday, September 15, 2025	
17:00–19:00	Registration at Conference Venue
Tuesday, September 16, 2025	
8:00–8:30	Registration at Conference Venue
8:30–9:30	MMA2025 Opening Session
Keynote Lecture Chair: Ratiba BENZERGA	
9:30–10:15	<b>Key Issues in Microwave Dielectric Ceramics for Future Mobile Communication</b> <u>Xiang Ming CHEN</u> <i>Laboratory of Dielectric Materials, School of Materials Science &amp; Engineering, Zhejiang University, China</i>
10:15-10:45	Coffee Break and Start of Industrial exhibition
Session: Material Development I Chairs: Jezry KRUPKA, Xavier CASTEL	
10:45-11:05	<b>Hybrid materials design of low-latency/low-loss dielectric substrates exploiting silicate ceramic nanofillers</b> (Invited Talk) <i>Nayeon KWON, Tae-Young SONG, Do-Kyun KWON</i> <i>Department of Materials Science &amp; Engineering, Korea Aerospace University, Korea</i>
11h05-11:25	<b>Effects of Li-B-Si glass addition on the dielectric properties of (Ca,Sr)(Zr,Ti)O<sub>3</sub> ceramics</b> (Invited Talk) <i>Hsing-I HSIANG, Hong-Xiang DING</i> <i>Department of Resources Engineering, National Cheng Kung University, Tainan, Taiwan</i>
11h25:11:45	<b>Phase Structure Regulation and Microwave Dielectric Properties of A/B-Site Substituted MgSiO<sub>3</sub> Ceramics for 5G Millimeter-Wave Applications</b> (Invited Talk) <i>Minmin MAO, Jin FANG, Tao Ni, Kaixin SONG</i> <i>College of Electronic Information and Engineering, Hangzhou Dianzi University, China</i>
11:45-12:00	<b>Glass and glass ceramics for applications in GHz electronics.</b> <i>Martin LETZ</i> <i>SCHOTT AG, Hattenbergstr. 10, Mainz, Germany</i>
12:00-12:15	<b>Machine learning-assisted permittivity prediction and optimization of the Clausius-Mossotti equation for microwave dielectric ceramics design</b> <i>Jincheng QIN<sup>1</sup>, Faqiang ZHANG<sup>1</sup>, Mingsheng MA<sup>1</sup>, Yongxiang LI<sup>2</sup>, Zhifu LIU<sup>1</sup></i> <i>State Key Laboratory of High Performance Ceramics and Superfine Microstructure, Shanghai Institute of Ceramics, Chinese Academy of Sciences, Shanghai 201899, China</i> <i>School of Engineering, RMIT University, Melbourne 3000, Australia</i>
12:15-13:45	Lunch Break
Keynote Lecture Chair: Martin LETZ	
13:45-14:30	<b>Technical Trends in Methods for Measuring Low-Loss Materials at Microwave and Millimeter Wave Frequencies</b> <u>Hirayama NAOKI</u> <i>Kyocera Corporation, Kirishima-shi, Kagoshima, Japan</i>
Session: Microwave Characterization Techniques I Chairs: Martin LETZ, Minmin MAO	
14:30-14:50	<b>Microwave dielectric loss analysis of Ba(Mg<sub>1/3</sub>Ta<sub>2/3</sub>)O<sub>3</sub> by neutron inelastic scattering and thermal conduction measurement</b> (Invited Talk) <i>Takeshi SHIMADA<sup>1</sup>, Masashi FUJII<sup>1</sup>, Hisauki IMAMURA<sup>1</sup>, Kazuya KAMAZAWA<sup>2</sup>, Mitsutaka NAKAMURA<sup>3</sup>, Jonathan BREEZE<sup>4</sup>, Neil McN. ALFORD<sup>5</sup></i> <i>1. R&amp;D Division, Digital Technology Department PROTERIAL LTD, Japan.</i> <i>2. Neutron R&amp;D Division, Comprehensive Research Organization for Science and Society, Japan.</i> <i>3. J-PARC Center, Japan Atomic Energy Agency, Japan.</i> <i>4. Department of Physics &amp; Astronomy, University College London: London, UK.</i> <i>5. Department of Materials - Faculty of Engineering, Imperial College London, UK.</i>
14:50-15:05	<b>Non destructive detection of cavity holes in dielectric substrates using a permittivity characterization technique based on a GSG probe</b> <i>Ikram SBAL<sup>1</sup>, Nicolas DELHOTE<sup>1</sup>, Olivier TANTOT<sup>1</sup>, Damien PASSERIEUX<sup>1</sup>, Emmanuel PERRIN<sup>2</sup></i> <i>1. XLIM UMR 7252, Université de Limoges/CNRS, 123 Avenue Albert Thomas, 87060, Limoges, France.</i> <i>2. CISTEME 12 Rue de Gémini, 87280, Limoges, France.</i>
15:05-15:20	<b>Q choked Split Cylinder Resonators alleviating sample thickness limitations in precise characterization of low-loss dielectrics</b> <i>Marzena OLSZEWSKA-PLACHA<sup>1</sup>, Bartłomiej SALSKI<sup>2</sup>, Wojciech GWAREK<sup>1</sup></i> <i>QWED SP. z o.o., Warsaw, Poland.</i> <i>Institute of Radioelectronics and Multimedia Technology, Warsaw University of Technology, Poland</i>
15:20-15:35	<b>Terahertz Time-Domain Spectra and Polarization Mechanisms of Microwave Dielectric Ceramics</b> <u>Weijia GUO, Zhenxing YUE</u> <i>State Key Laboratory of New Ceramics and Fine Processing, School of Materials Science and Engineering, Tsinghua University, Beijing, China</i>
15:35-15:50	<b>Sub-THz Band Characterization of Low-loss Dielectrics with a Resonator</b> <i>Paweł KOPYT, Jerzy CUPER, Bartłomiej SALSKI, P. ZAGRAJEK<sup>2</sup></i> <i>1. Warsaw University of Technology, Institute of Radioelectronics and Multimedia Technology, Warsaw, Poland</i> <i>2. Military University of Technology, Institute of Optoelectronics, Warsaw, Poland</i>
15:50-16:20	Coffee Break + Poster Session I

<b>Session: Material Development II</b> Chairs: Wojciech GWAREK, Quentin SIMON	
16:20-16:40	<b>Study of high permittivity dielectric materials for microwave applications</b> (Invited Talk) <u>Pascal MARCHET<sup>1</sup></u> , T. RAUTUREAU <sup>1,2</sup> , P.M. GEFFROY <sup>1</sup> , F. ROSSIGNOL <sup>1</sup> , A. CARLE <sup>2</sup> 1. IRCER Institut de Recherche sur les Céramiques, UMR 7315 CNRS, Université de Limoges, France 2. AXEM Technology, Creteil, France
16:40-17:00	<b>Structure and Microwave Dielectric Characteristics of HfO<sub>2</sub>-Based Ceramics</b> (Invited Talk) <u>Yi HAN DING<sup>1,2</sup></u> , Xiang Ming CHEN <sup>2</sup> 1. School of Materials and Advanced Manufacturing, Hunan University of Technology, Zhuzhou, China. 2. School of Materials Science and Engineering, Zhejiang University, Hangzhou, China
17:00-17:15	<b>Processing Complex Oxide Ceramics Toward Printable DRA Applications</b> <u>Matthew JULIAN<sup>1</sup></u> , Thomas LAVIE <sup>1</sup> , Laurent LE GENDRE <sup>1</sup> , Ratiba BENZERGA <sup>1</sup> , Ala SHARAIHA <sup>1</sup> , François CHEVIRÉ <sup>2</sup> , Claire LE PAVEN <sup>1</sup> 1. IETR, Institute of Electronics and Telecommunications of Rennes, University of Rennes, France. 2. ISCR, Rennes Institute of Chemical Sciences, University of Rennes, France
17:15-17:30	<b>Millimeter-wave dielectric characteristics of Sr<sub>1-x</sub>Ca<sub>x</sub>SmAlO<sub>4</sub> ceramics</b> <u>Xing Yu CHEN</u> , Mei Ying LIU, Lei LI, Xiang Ming CHEN School of Materials Science and Engineering, Zhejiang University, China.
17:30-17:45	<b>Machine learning assisted Qf value prediction of ABO<sub>3</sub> perovskite microwave dielectric ceramics</b> <u>Liangyu MO<sup>1,2</sup></u> , Jincheng QIN <sup>1</sup> , MingSheng MA <sup>1,2</sup> , Zhifu LIU <sup>1,2</sup> 1. State Key Laboratory of High Performance Ceramics and Superfine Microstructure, Shanghai Institute of Ceramics, Chinese Academy of Sciences, Shanghai 201899, China 2. Center of Materials Sciences and Optoelectronics Engineering, University of Chinese Academy of Sciences, Beijing 100049, China
17:45-18:00	<b>Changes in ordered structure and dielectric properties with the non-stoichiometry of Ba<sub>1+x</sub>(Mg<sub>1/3</sub>Nb<sub>2/3</sub>)O<sub>3+x</sub> complex perovskites ceramics</b> <u>Yangyang LIU</u> , Maosen FU, Xiao MA State Key Laboratory of Solidification Processing, School of Materials Science and Engineering, Northwestern Polytechnical University, Xian China.
18:45	<b>Welcome Reception at the Hotel de Ville de Saint Brieuc</b>
<b>Wednesday, September 17, 2025</b>	
<b>Keynote Lecture</b> Chair: Robert PULLAR	
8:30–9:15	<b>Research in the field of RF materials at the Defense Innovation Agency, with applications in radar stealth and antenna optimization and Integration</b> <u>Philippe POULIGUEN</u> Agence Innovation Défense, France
<b>Session: Microwave Devices and Applications</b> Chairs: Robert PULLAR, Zhifu LIU	
9:15-9:35	<b>Application of Glass Ceramics and Ferrite Co-Firing Technology in EMI Filters</b> (Invited Talk) <u>Hiroshige ADACHI</u> , Yasutaka SUGIMOTO, Akihiro NAKAMURA Murata Manufacturing Co., Ltd., Japan
9:35-9:50	<b>Ultra-low-noise Continuous-wave Room-temperature Solid-state Maser Amplifier</b> <u>Ziqiu HUANG</u> , Yifan YU, Mark OXBORROW, Max ATTWOOD Department of Materials and London Centre for Nanotechnology, Imperial College London, Prince Consort Road, London, UK.
9:50-10:05	<b>A Comparative Analysis of the Dielectric, Thermal and Mechanical Characteristics of Butyl Rubber Composites with Low Dielectric Fillers for Flexible Microwave Substrate Applications</b> <u>Muhammed AZEEM Y<sup>1</sup></u> , Abhijith SIVAN <sup>1</sup> , MURALI K.P. <sup>1</sup> , Shameer KEELAILLAM <sup>2</sup> , Anju PRADEEP <sup>3</sup> 1. Department of Mechanical Engineering, National Institute of Technology, Calicut, India 2. Department of Electronics and Communication Engineering, National Institute of Technology, Calicut, India 3. School of Engineering, Cochin University of Science and Technology, India
10:05-10:30	<b>Coffee Break + Poster Session I</b>
<b>Session: Microwave Characterization Techniques II</b> Chairs: Xiang Ming CHEN, Jezry KRUPKA	
10:30-10:50	<b>Broadband Spectroscopy in Oxides and Its Applications</b> (Invited Talk) <u>Takashi TERANISHI<sup>1,2</sup></u> 1. Okayama University, Okayama, Japan 2. Institute of Science Tokyo, Tokyo, Japan
10:50-11:10	<b>Wide-band extraction of dielectric material parameters preserving full accuracy of classical resonant methods</b> (Invited Talk) <u>Wojciech GWAREK</u> , Małgorzata CELUCH, Marzena OLSZEWSKA-PLACHA QWED Sp.z o.o, Krzywickiego 12, 02-078 Warszawa, Poland.
11:10-11:25	<b>Development of antennas for Structural Health Monitoring applications</b> <u>Benjamin MUGABO</u> , Benoit LESCOP, Philippe TALBOT, Stéphane RIOUAL Univ Brest, CNRS, LabSTICC, France
11:25	<b>Lunch Box</b>
11:35	<b>Departure to Mont Saint-Michel</b>
19:00–23:30	<b>Gala Dinner and Wakino Award at Quai Gourmand</b>

Thursday, September 18, 2025	
<b>Keynote Lecture</b> Chair: Hong WANG	
8:30–9:15	<b>Applications of Microwave Heating for High-Temperature Processing Materials</b> <u>Sylvain MARINEL</u> <i>Université de Normandie, ENSICAEN, UNICAEN, CNRS, CRISMAT, France</i>
<b>Session: Unconventional Processing of Materials</b> Chairs: Hong WANG, Laurent LE GENDRE	
9:15-9:30	<b>Using microwave radiation to process materials in industry</b> <u>Luís Cadillon COSTA</u> , Tiago SANTOS, Diana FIDALGO <i>I3N and Physics Department, University of Aveiro, Aveiro, Portugal.</i>
9:30-9:45	<b>Elaboration of BaTiO<sub>3</sub> lead-free piezoelectric thick films on thin metallic substrates by Aerosol Deposition method (AD)</b> Anass CHRIR <sup>1</sup> , Oscar Rojas <sup>2</sup> , Laurence BOYER <sup>2</sup> , Olivier DURAND <sup>2</sup> , Maxime BAVENCOFFE <sup>3</sup> , <u>Pascal MARCHET<sup>1</sup></u> 1. IRCER Institut de Recherche sur les Céramiques, UMR 7315 CNRS, Université de Limoges, France 2. CTTC Centre de Transfert de Technologies Céramiques, Limoges, France 3. GREMAN, Université de Tours, CNRS, INSA CVL, Tours, France
9:45-10:00	<b>Fabrication and characterization of ceramic gyroid structures for miniaturized dielectric resonator antennas: control of properties through material and design parameters</b> <u>Thomas LAVIE<sup>1</sup></u> , Matthew JULIAN <sup>1</sup> , Laurent LE GENDRE <sup>1</sup> , Ratiba BENZERGA <sup>1</sup> , Ala SHARAIHA <sup>1</sup> , François CHEVIRE <sup>2</sup> , Claire LE PAVEN <sup>1</sup> 1. IETR, Institute of Electronics and Telecommunications of Rennes, University of Rennes, France. 2. ISCR, Institute of Chemical Sciences of Rennes, University of Rennes, France
10:00-10:15	<b>Innovative Applications of <math>\mu</math>AM in High-Frequency Component Design: From 3D Structures to Coplanar Line Repair</b> <u>Hiba LAHLIMI ALAMI<sup>1</sup></u> , Cyril GUINES <sup>1</sup> , Aurélien PERIGAUD <sup>1</sup> , Nicolas DELHOTE <sup>1</sup> , Stéphane BILA <sup>1</sup> , Pedro RYNKIEWICZ <sup>2</sup> 1. XLIM Laboratory, RF system department, Limoges University, Limoges, France 2. CNES – French Space Agency, Toulouse, France
10:15-10:45	<b>Coffee Break + Poster Session II</b>
<b>Session: Absorbing and Shielding Materials and Systems</b> Chairs: Lei LI, Vincent LAUR	
10:45-11:05	<b>Electromagnetic shielding with controlled dynamic effectiveness (Invited Talk)</b> <u>Thomas EUDES</u> <i>Safran Electronics &amp; Defense, France</i>
11:05-11:25	<b>Ultra-light-weight sustainable microwave absorbing / shielding material from sustainable pyrolysed cork-carbon foams (Invited Talk)</b> <u>Robert C. PULLAR<sup>1</sup></u> , Rui M. NOVAIS <sup>2</sup> , Ana. P. F. CAETANO <sup>2</sup> , Kuzhichalil P. SURENDRAN <sup>3</sup> 1. Department of Molecular Sciences and Nanosystems (DSMN), Ca' Foscari University of Venice, 30172 Venezia Mestre, Italy 2. Department of Engineering of Materials and Ceramics / CICECO – Aveiro Institute of Materials, University of Aveiro, Campus Universitário de Santiago, Aveiro, Portugal 3. Materials Science and Technology Division, CSIR-NIIST, Industrial Estate, Trivandrum, India
11:25-11:45	<b>Disruptive RF absorbers from novel materials and manufacturing techniques (Invited Talk)</b> <u>Lorena SORIA MARINA<sup>1</sup></u> , Erika VANDELLE <sup>1</sup> , Paul AL-MALAK <sup>1</sup> , Gaëtan BRACCIALE <sup>1</sup> , Thi Quynh Vân HOANG <sup>1</sup> , Christophe GALINDO <sup>1</sup> . TRT, Thales Research and Technology Fr, Palaiseau, France.
10:45-12:00	<b>Shear-Induced Alignment of MWCNTs in SLA 3D-Printed Nanocomposites for Enhanced Electromagnetic Interference Shielding</b> <u>Hamza JAMIL</u> & Ruth CARDINAELS <i>Soft Matter, Rheology, and Technology (SMaRT), Department of Chemical Engineering, KU Leuven, Belgium</i>
12:00-12:15	<b>Simulation-Driven Design and Development of Microstructure-Controlled FDM 3D-Printed EMI Shields</b> <u>Athira RAJAN</u> & Ruth CARDINAELS <i>Soft Matter, Rheology and Technology (SMaRT), Department of Chemical Engineering, KU Leuven, Belgium.</i>
12:15-13:45	<b>Lunch Break</b>
<b>Keynote Lecture</b> Chair: Claire LE PAVEN	
13:45-14:30	<b>On-Chip Linear and Nonlinear Microwave Measurements of Composite and Soft Material</b> <u>James C. BOOTH</u> <i>National Institute of Standards and Technology (NIST), Boulder, CO, USA</i>
<b>Session: Microwave Characterization Techniques III</b> Chairs : Claire LE PAVEN, Luís Cadillon COSTA	
14:30-14:50	<b>Measurements of the Complex Permittivity, Conductivity and the Complex Permeability at Microwave Frequencies (Invited Talk)</b> <u>Jezry KRUPKA</u> <i>Institute of Microelectronics and Optoelectronics Warsaw University of Technology, Poland</i>
14:50-15:10	<b>Multispectral and multiphysics characterization of ferrites for microwave applications (Invited Talk)</b> <u>Vincent LAUR<sup>1</sup></u> , Alexis CHEVALIER <sup>1</sup> , Jean-Luc MATTEI <sup>1</sup> , Richard LEBOURGEOIS <sup>2</sup> 1. Lab-STICC, University of Brest, France 2. Thales Research & Technology, France
15:10-15:25	<b>Advanced Characterization of Copper Foils for High-Frequency Applications Using Ruby Dielectric Resonator Technique</b> <u>Lukasz NOWICKI<sup>1,2</sup></u> , Tomasz NALECZ <sup>1</sup> , Janusz RUDNICKI <sup>1</sup> , Malgorzata CELUCH <sup>1</sup> 1. QWED, Warsaw, Poland 2. Warsaw University of Technology, Poland

15:25-15:40	<b>Enhanced Forward Model for Permittivity Measurement of Bilayer Materials under Oblique Incidence in Free Space</b> <u>Gregory GAUDIN</u> <sup>1,2</sup> , <u>Clément HENRY</u> <sup>1,2</sup> 1. IMT Atlantique, Brest, France. 2. Lab-STICC, UMR CNRS 6285, Brest, France.
15:40-15:55	<b>Engineering low-loss (Ba,Sr)TiO<sub>3</sub> with the Ruddlesden-Popper phase</b> <u>Florian BERGMANN</u> <sup>1</sup> , Matthew Barone <sup>2</sup> , Aiden ROSS <sup>3</sup> , Zeru TIAN <sup>4</sup> , Meagan PAPAC <sup>1</sup> , S. FREED <sup>1</sup> , Darrell SCHLOM <sup>2</sup> , Nate ORLOFF <sup>1</sup> 1. NIST, National Institute of Standards and Technology, Boulder, Colorado, United States of America. 2. Cornell University, United States of America. 3. Penn State University, United States of America. 4. Rice University, Houston, United States of America.
15:55-16:25	<b>Coffee Break + Poster Session II</b>
<b>Session: Material Development III</b> Chairs: Do-Kyun KWON, Hsing-I HSIANG	
16:25-16:45	<b>Low-dielectric-constant microwave dielectric composites with improved temperature stability</b> (Invited Talk) <u>Lei LI</u> , Fang Yu SUN, Zuo Yi LI, Xing Yu CHEN, Xiang Ming CHEN Laboratory of Dielectric Materials, School of Materials Science & Engineering, Zhejiang University, Hangzhou, China
16:45-17:05	<b>Investigation of Microwave Dielectrics with Ultralow Permittivity and Loss</b> (Invited Talk) <u>Daniel O. TAN</u> Department of Materials Science and Engineering, Guangdong Provincial Key Laboratory of Materials and Technologies for Energy Conversion, Guangdong Technion-Israel Institute of Technology, Shantou, China
17:05-17:20	<b>Development of ultra-low dielectric constant glass-ceramics</b> <u>Kuei-Chih FENG</u> Department of Mechanical Engineering, Ming Chi University of Technology, New Taipei City 24301, Taiwan
17:20-17:35	<b>Microwave Dielectric Properties of Yttrium Ferrites Synthesized by Solid-State Reaction for Energy Storage</b> <u>Sílvia SORETO</u> <sup>1</sup> , Manuel Pedro GRAÇA <sup>1</sup> , Luís Cadillon COSTA <sup>1</sup> i3N and Physics Department, University of Aveiro, 3810-193 Aveiro, Portugal
17:35-17:50	<b>Development of Auto-Polarized Critical Materials free Hexaferrites For Microwave Devices Innovations</b> <u>Antoine HOEZ</u> , A. CHEVALIER, N. PARKER-SOUES, J.-L. MATTEI Lab-STICC, University of Western Brittany, Brest, France.
17:50-18:05	<b>Machine learning assisted Tf value prediction of ABO<sub>3</sub>-type microwave dielectric ceramics</b> <u>Mingyue YANG</u> <sup>1,2</sup> , Liangyu MO <sup>1,2</sup> , Jincheng QIN <sup>1</sup> , Faqiang ZHANG <sup>1</sup> , Mingsheng MA <sup>1,2</sup> , Zhifu LIU <sup>1,2</sup> 1. State Key Laboratory of High Performance Ceramics and Superfine Microstructure, Shanghai Institute of Ceramics, Chinese Academy of Sciences, Shanghai, China 2. Center of Materials Sciences and Optoelectronics Engineering, University of Chinese Academy of Sciences, Beijing, China

Friday, September 19, 2025	
<b>Keynote Lecture</b> Chair: Takeshi SHIMADA	
8:30–9:15	<b>Sustainable Cold Sintering of Functional Composites for Next-Generation Dielectric Devices</b> <u>Paula M. VILARINHO</u> Department of Materials and Ceramics Engineering, CICECO – Aveiro Institute of Materials, University of Aveiro, Aveiro, Portugal
<b>Session: Low Temperature Processes for Ceramic Materials</b> Chairs: Takeshi SHIMADA, Marzena OLSZEWSKA-PLANCHA	
9:15-9:35	<b>High thermal expansion LTCC microwave dielectric material for high reliability microwave components</b> (Invited Talk) <u>Zhifu LIU</u> Shanghai Institute of Ceramics, Chinese Academy of Sciences
9:35-9:55	<b>Room Temperature Preparation of Microwave Dielectric Ceramics with High Thermal Conductivity</b> (Invited Talk) <u>Hong WANG</u> , Jin CHENG, Zhan ZENG Department of Materials Science and Engineering, Southern University of Science and Technology, Shenzhen, Guangdong, China.
9:55-10:15	<b>Temperature-stable BaLiF<sub>3</sub> microwave ceramics for LTCC applications</b> (Invited Talk) H. ZHENG, L.M. HUANG, <u>L.J. BIAN</u> School of Material Science and Engineering, Shanghai University, Shanghai, China
10:15-10:30	<b>Overcoming the Densification Challenge in Fluoride Ceramics for Superior Microwave Dielectric Performance</b> <u>Bing LIU</u> , Ke SHA, Meng Fei ZHOU, Juan LIU, Mo WEI, Chen Bo WANG, Jing Ye JIN College of Electronic Information and Engineering, Hangzhou Dianzi University, Hangzhou, China
10:30-10:45	<b>Ultralow dielectric constant and low loss Silicalite-2 zeolite ceramics prepared by cold sintering</b> <u>Fu Wei ZHOU</u> <sup>1</sup> , Qiang ZHANG <sup>2</sup> , Ji Hong YU <sup>2</sup> , Xiang Ming CHEN <sup>1</sup> 1. School of Materials Science and Engineering, Zhejiang University, Hangzhou, China 2. State Key Laboratory of Inorganic Synthesis and Preparative Chemistry, College of Chemistry, International Center of Future Science, Jilin University, Changchun, China
10:45-11:15	<b>Coffee Break</b>

<b>Session: Ferroelectric Materials for Microwaves Applications</b> Chairs: Daniel Q. TAN, Matthew JULIAN	
11:15-11:35	<b>Ordered domain engineering and property modulation of Ba-based complex perovskite ceramics</b> (Invited Talk) <u>Xiao Li ZHU</u> , Xiang Ming CHEN School of Materials Science and Engineering, Zhejiang University, Hangzhou, China.
11:35-11:50	<b>Structural and dielectric characterizations of Ce-doped Ba<sub>0.7</sub>Sr<sub>0.3</sub>TiO<sub>3</sub> thin films for microwave applications</b> Edgar CHASLIN, <u>Quentin SIMON</u> , Mohamed HIMDI, Xavier CASTEL. Univ Rennes, CNRS, IETR-UMR 6164, Rennes, France.
11:50-12:05	<b>Embedding plate-like pyrochlore in perovskite phase to enhance energy storage performance of BNT-based ceramic capacitors</b> <u>Jiwei ZHAI</u> School of Materials Science and Engineering, Tongji University, Shanghai, China
12:05-12:20	<b>Investigating the Nb<sub>2</sub>O<sub>5</sub> additive effect of microstructures and dielectric properties of (Ba<sub>0.8</sub>Na<sub>0.05</sub>Bi<sub>0.15</sub>)(Ti<sub>0.95</sub>Mg<sub>0.05</sub>)O<sub>3</sub> ceramics</b> <u>Chien-Ming LEI</u> <sup>1</sup> , Yu-Chuan WU <sup>2,3</sup> , Chi-En TSAI <sup>3</sup> , Chun-Ming HUANG <sup>4</sup> 1. Department of Chemical and Materials Engineering of Chinese Culture University, Taipei, Taiwan 2. Department of Materials and Mineral Resources Engineering of National Taipei University of Technology, Taipei, Taiwan 3. Institute of Materials Science and Engineering, National Taipei University of Technology, Taipei, Taiwan 4. Prosperity Dielectrics Co., Ltd, Taoyuan, Taiwan
12:20-12:40	<b>MMA2025 Closing Session</b>
12:40	<b>Lunch Break</b>

**PS-I-1. Characteristic modes analysis-based approach for 3D printed broadband dielectric resonator antenna**

Romain AMMAR<sup>1</sup>, Thomas LAVIE<sup>1</sup>, Sylvain COLLARDEY<sup>1</sup>, Ala SHARAIHA<sup>1</sup>, Matthew JULIAN<sup>1</sup>, Claire LE PAVEN<sup>1</sup>, Laurent LE GENDRE<sup>1</sup>, Ratiba BENZERGA<sup>1</sup>, Philippe POULIGEN<sup>2</sup>

1. Univ Rennes, CNRS, IETR – UMR 6164, Rennes, France

2. AID, Ministère de la Défense, France

**PS-I-2. Electromagnetic characterization of dielectric pills using a Fabry-Perot open resonator**

Piotr CZEKAŁA, Bartłomiej SALSKI, Piotr POLNAU

Warsaw University of Technology, Institute of Radioelectronics and Multimedia Technology, Warsaw, Poland

**PS-I-3. Enhanced Performance of Structured Silicone Foam-Based Microwave Absorbers via Laser Cutting**

Gwenvael DANIELOU<sup>1,2</sup>, Hanadi BREISS<sup>1</sup>, Ala SHARAIHA<sup>1</sup>, Lucile AMORY<sup>3</sup>, Philippe POULIGUEN<sup>3</sup>, Ronan ADAM<sup>2</sup>, Loïc BERNARD<sup>1,2</sup>, Ratiba BENZERGA<sup>1</sup>

1. Univ Rennes, CNRS, IETR-UMR 6164, F-35000 Rennes, France

2. Institut franco-allemand de recherche de Saint Louis, F-68300 Saint Louis, France

3. Agence de l'Innovation de Défense, Ministère des armées, F-75509 Paris, France

**PS-I-4. A broadband flexible metamaterial absorber based on silicone foam**

Oussama LAMRINI, Hanadi BREISS, Ala SHARAIHA, Ratiba BENZERGA

Univ Rennes, CNRS, IETR-UMR 6164, Rennes, France

**PS-I-5. Tailoring ceramic gyroid resonator performances : exploring the interplay between structure design and additive manufacturing parameters**

Thomas LAVIE<sup>1</sup>, Matthew JULIAN<sup>1</sup>, Laurent LE GENDRE<sup>1</sup>, Ratiba BENZERGA<sup>1</sup>, Ala SHARAIHA<sup>1</sup>, François CHEVIRÉ<sup>2</sup>, Claire LE PAVEN<sup>1</sup>

1. IETR, Institute of Electronics and Telecommunications of Rennes, University of Rennes, France

2. ISCR, Institute of Chemical Sciences of Rennes, University of Rennes, France

**PS-I-6. Frequency-Dependent Modeling of AC Conductivity in Polymer Nanocomposites: Influence of Filler Dimensionality and Interphase Properties**

Y. NIOUA<sup>1</sup>, Z. SAMIR<sup>1</sup>, N. ARIBOU<sup>1</sup>, S. BOUKHEIR<sup>2</sup>, M. E. ACHOUR<sup>1</sup>, L. C. COSTA<sup>3</sup>

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**PS-I-7. Temperature-Dependent Microwave Characterization of Ion-Implanted Materials for Graphene-on-SiC enabled systems**

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**PS-I-8. Microwave and mm-Wave characterization of treated copper foils with dielectric resonator method for efficient PCB development**

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**PS-I-9. Dielectric Characterization of Low-Loss Spherical Samples at Millimeter-Wave Frequencies**

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**PS-I-10. Transforming Ceramic Manufacturing for Microwave Applications**

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**PS-I-11. Abnormal dielectric behavior of glaserite-type Ba<sub>3-x</sub>Sr<sub>x</sub>MgSi<sub>2</sub>O<sub>8</sub> solid solution**

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**PS-II-1. Broadband dielectric permittivity analysis and modelling of polypropylene/pyrograf® III carbon nanofiber composites prepared by melt- extrusion**

Najoia ARIBOU<sup>1</sup>, Antonio J. PALEO<sup>2</sup>, Jaime Oliveira DA SILVA<sup>3</sup>, Oscar TOLEDANO<sup>4</sup>, Maria F.CERQUEIRA<sup>5,6</sup>, Tiberio A. EZQUERRA<sup>4</sup>, M. E. ACHOUR<sup>1</sup>

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**PS-II-2. Epitaxial growth of Ba<sub>0.7</sub>Sr<sub>0.3</sub>TiO<sub>3</sub> thin films on R-plane sapphire: Influence of buffer layers on structural and dielectric properties at microwaves**

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**PS-II-3. Frequency reconfigurable VHF antenna using magnetodielectric materials tunable by a low DC magnetic field**

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**PS-II-4. Microwave dielectric properties of PEKK**

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**PS-II-5. Structure and Dielectric Properties of (Sr<sub>2</sub>Ta<sub>2</sub>O<sub>7</sub>)<sub>1-x</sub>(La<sub>2</sub>Ti<sub>2</sub>O<sub>7</sub>)<sub>x</sub> Thin Films Synthesized by RF Sputtering**

Matthew JULIAN<sup>1</sup>, Ratiba BENZERGA<sup>1</sup>, Laurent LE GENDRE<sup>1</sup>, Ala SHARAHIA<sup>1</sup>, François CHEVIRÉ<sup>2</sup>, Claire LE PAVEN<sup>1</sup>

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**PS-II-6. High-frequency characterization of Limoges porcelain for advanced electronic applications**

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**PS-II-7. P-V-L theory and first principle density of states calculation for Chemical bond evaluation of microwave dielectric ceramics**

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**PS-II-8. Low-profile dielectric resonator antenna using niobate-based ceramics for X-band applications**

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**PS-II-9. Microwave Characterization of Complex Permittivity and Permeability of Hexaferrite Disks with Resonant Methods**

Adam PACEWICZ<sup>1</sup>, Jerzy KRUPKA<sup>2</sup>, Robert C. PULLAR<sup>3</sup>, Piotr BOGORODZKI<sup>1</sup>, Bartłomiej SALSKI<sup>1</sup>

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**PS-II-10. Magnetic metallic nanoparticles produced from oxide precursors via pyrolysis without the use of added reducing agents or a reductive atmosphere**

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**PS-II-11. Microwave resonant characterization of thin films deposited on a dielectric substrate**

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