Monday, September 10, 2018

09:30 - 10:00	**Opening Remarks**	**Shirotori Hall**
10:00 - 11:30	**Mo-A1-S Plenary Session** **Chair: Daniel Mittleman**	**Shirotori Hall**
10:00	**THz Aqueous Photonics And Beyond** Qi Jin[1]; Yiwen E[1]; Liangliang Zhang[2]; Cunlin Zhang[2]; Anton Tcypkin[3]; Sergey Kozlov[3]; Xi-Cheng Zhang[1] [1]University of Rochester, United States; [2]Capital Normal University, China; [3]ITMO University, Russian Federation	**Mo-A1-S-1**
10:45	**The Long Journey From Far-infrared To THz** Qing Hu MIT, United States	**Mo-A1-S-2**
12:30 - 14:00	**Mo-P1-R1 Spectroscopy and Material Properties I** **Chair: Frank Hegmann**	**Shirotori Hall**
12:30	**[Keynote] Terahertz Spectroscopy Of 2D Materials** Lyubov Titova[1]; Guangjiang Li[1]; Kateryna Kushnir[2]; Mengjing Wang[3]; Yongchang Dong[4]; Kristie Koski[5]; Ramakrishna Podila[4] [1]Worcester Polytechnic Institute, United States; [2]Worcester Polytechnic Insitute, United States; [3]Brown University, United States; [4]Clemson University, United States; [5]University of California Davis, United States	**Mo-P1-R1-1**
13:00	**Changed Graphene THz Conductivity Mapping Under E-beam Excitation** Xiaodong Feng; Zhuocheng Zhang; Sen Gong; Min Hu; Jun Zhou; Shenggang Liu University of Electronic Science and Technology of China, China	**Mo-P1-R1-2**
13:15	**Probing Photo-induced Vibrational Kinetics In Perovskite Thin Films**	**Mo-P1-R1-3**

	Qiushuo Sun[1]; Xudong Liu[1]; Jie Cao[1]; Rayko Stantchev[1]; Yang Zhou[1]; Xuequan Chen[1]; Edward Parrott[1]; Ni Zhao[1]; Emma MacPherson[2] [1]The Chinese University of Hong Kong, Hong Kong; [2]University of Warwick, United Kingdom	
13:30	**[Keynote] Strong Terahertz Plasmonic Resonances In Thin-film Cd3As2: A Three-dimensional Dirac Semimetal** Ashish Chanana; Berardi-Sensale Rodriguez; Prashnath R Gopalan University of Utah, United States	**Mo-P1-R1-4**
12:30 - 14:00	**Mo-P1-1b High-Field THz Wave Generation and Nonlinear THz Physics I** **Chair: Peter Uhd Jepsen**	**Room 131+132**
12:30	**[Keynote] Terahertz Quasiparticle Acceleration: From Electron--Hole Collisions To Lightwave Valleytronics** Fabian Langer[1]; Christoph P. Schmid[1]; Stefan Schlauderer[1]; Philipp Nagler[1]; Christian Schüller[1]; Tobias Korn[1]; Martin Gmitra[1]; Jaroslav Fabian[1]; Peter G. Hawkins[2]; Johannes T. Steiner[2]; Ulrich Huttner[2]; Stephan W. Koch[2]; Mackillo Kira[3]; Rupert Huber[1] [1]University of Regensburg, Germany; [2]University of Marburg, Germany; [3]University of Michigan, United States	**Mo-P1-1b-1**
13:00	**Influence Of Pump Laser Phase And Amplitude Distortions On Terahertz Generation Efficiency** Lu Wang[1]; Arya Fallahi[1]; Koustuban Ravi[2]; Franz Kaertner[1] [1]DESY, Germany; [2]Massachusetts Institute of Technology, United States	**Mo-P1-1b-2**
13:15	**Mass Spectrometry For The Organic Solids Using An Intense THz Free Electron Laser Pulse** Masaya Nagai[1]; Eiichi Matsubara[2]; Masaaki Ashida[1]; Masanori Fuyuki[3]; Keigo Kawase[1]; Akinori Irizawa[1]; Goro Isoyama[1]; Jun Aoki[1]; Michisato Toyoda[1] [1]Osaka University, Japan; [2]Osaka Dental University, Japan; [3]Kio University, Japan	**Mo-P1-1b-3**
13:30	**Narrowband Thz Generation By Colliding Plasma Waves With Different Transverse Sizes**	**Mo-P1-1b-4**

	Vladimir Annenkov; Igor Timofeev; Evgeniia Volchok; Vadim Khudyakov BINP SB RAS, Russian Federation	
13:45	**Generation Of High-Power Cherenkov Superradiance Pulses Using Oversized 2D Slow-Wave Structures** Vladislav Zaslavsky; Naum Ginzburg; Andrey Malkin; Alexander Sergeev; Irina Zotova IAP RAS, Russian Federation	**Mo-P1-1b-5**
12:30 - 14:00	**Mo-P1-1a Applications in Industry, Security and Inspection I** **Chair: René Beigang**	**Room 141+142**
12:30	**[Keynote] In-situ Monitoring Of Powder Density Using Terahertz Pulsed Imaging** Daniel Markl[1]; Runqiao Dong[2]; Jingyi Li[2]; Axel Zeitler[2] [1]University of Strathclyde, United Kingdom; [2]University of Cambridge, United Kingdom	**Mo-P1-1a-1**
13:00	**[Keynote] Quantification Of Liquids With Terahertz Waves** Andreas Keil; Fabian Friederich Fraunhofer ITWM, Germany	**Mo-P1-1a-2**
13:30	**Thickness Measurements With Multistatic Sparse Arrays** Andreas Keil; Nina Schreiner; Fabian Friederich Fraunhofer ITWM, Germany	**Mo-P1-1a-3**
13:45	**All-electronic High-resolution Terahertz Thickness Measurements** Nina Schreiner[1]; Wolfgang Sauer-Greff[2]; Ralph Urbansky[1]; Fabian Friederich[1] [1]Fraunhofer ITWM, Germany; [2]Kaiserslautern University of Technology, Germany	**Mo-P1-1a-4**
12:30 - 14:00	**Mo-P1-4 Devices, Components, and Systems I** **Chair: Koichiro Tanaka**	**Room 432**
12:30	**Incoherent, Spatially-mapped THz Spectral Analysis** Daniel Headland; Philipp Hillger; Robin Zatta; Ullrich Pfeiffer University of Wuppertal, Germany	**Mo-P1-4-1**

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12:45	**Broadband Low-Permittivity Elliptical Lens Fed By A Leaky-Wave Antenna For Communications Applications** Darwin Blanco; Marta Arias Campo; Nuria Llombart Tu Delft University, Netherlands	**Mo-P1-4-2**
13:00	**[Keynote] Evolution Of Rod Antennas For Integrated Terahertz Photonics** Withawat Withayachumnankul[1]; Ryoumei Yamada[2]; Masayuki Fujita[2]; Tadao Nagatsuma[2] [1]The University of Adelaide, Australia; [2]Osaka University, Japan	**Mo-P1-4-3**
13:30	**[Keynote] Terahertz Applications Inspired By Photonics** Tadao Nagatsuma Osaka University, Japan	**Mo-P1-4-4**

14:30 - 16:00	**Mo-P2-R1 Spectroscopy and Material Properties II** **Chair: Hitoshi Ohta**	**Shirotori Hall**
14:30	**Ultraviolet Light-induced Terahertz Modulation Of An Indium Oxide Film** Hongyu Ji[1]; Bo Zhang[1]; Wei Wang[1]; Longfeng Lv[2]; Jingling Shen[1] [1]Capital Normal University, China; [2]Institution of Semiconductors, Chinese Academy of Sciences, China	**Mo-P2-R1-1**
14:45	**Ultrafast Charge Carrier Dynamics In Diketopyrrolopyrrole-Linked Tetrabenzoporphyrin Films Studied By Time-Resolved Terahertz Spectroscopy** Kaoru Ohta[1]; Yuichi Hiramatsu[2]; Kohtaro Takahashi[3]; Mitsuharu Suzuki[3]; Hiroko Yamada[3]; Keisuke Tominaga[1] [1]Molecular Photoscience Research Center, Kobe University, Japan; [2]Graduate School of Science, Kobe University, Japan; [3]Division of Materials Science, Graduate School of Science and Technology, NAIST, Japan	**Mo-P2-R1-2**
15:00	**[Keynote] Terahertz Time Domain Spectroscopy For Spin Reorientation Phase Transition In SmFeO3 At High Temperature** Makoto Nakajima; Kazumasa Hirota; Hongsong Qiu; Kosaku Kato; Masashi Yoshimura Osaka University, Japan	**Mo-P2-R1-3**

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15:30	**Terahertz-infrared Electrodynamics Of Lead-doped Single Crystalline Ba(1-x)Pb(x)Fe12O19 M-type Hexagonal Ferrite** Liudmila Alyabyeva[1]; Alexander Chechetkin[1]; Victor Torgashev[2]; Elena Zhukova[1]; Denis Vinnik[3]; Anatoliy Prokhorov[1]; Svetlana Gudkova[3]; Boris Gorshunov[1] [1]Moscow Institute of Physics and Technology (State University), Russian Federation; [2]Southern Federal University, Russian Federation; [3]South Ural State University, Russian Federation	**Mo-P2-R1-4**
15:45	**Polar Soft Mode In Titanium-doped Single Crystalline BaFe12-xTixO19 M-type Hexaferrite** Liudmila Alyabyeva[1]; Samvel Yegiyan[1]; Victor Torgashev[2]; Elena Zhukova[1]; Denis Vinnik[3]; Anatoliy Prokhorov[1]; Svetlana Gudkova[3]; Boris Gorshunov[1] [1]Moscow Institute of Physics and Technology (State University), Russian Federation; [2]Southern Federal University, Russian Federation; [3]South Ural State University, Russian Federation	**Mo-P2-R1-5**

14:30 - 16:00	**Mo-P2-1b High-Field THz Wave Generation and Nonlinear THz Physics II** **Chair: Dai-Sik Kim**	**Room 131+132**
14:30	**Demonstration Of A Tilted-Pulse-Front Pumped Planparallel Slab Terahertz Source** József A. Fülöp[1]; Priyo S. Nugraya[1]; László Pálfalvi[2]; Gergő Krizsán[2]; Csaba Lombosi[2]; György Toth[2]; Gabor Almasi[2]; Janos Hebling[2] [1]MTA-PTE High-Field Terahertz Research Group, Hungary; [2]University of Pécs, Hungary	**Mo-P2-1b-1**
14:45	**Terahertz Wave Generation From Liquid Gas** Alexander Shkurinov Lomonosov Moscow State University, Russian Federation	**Mo-P2-1b-2**
15:00	**Electrical Switching Between Terahertz Second And Third Harmonic Generation In Photo-doped GaAs**	**Mo-P2-1b-3**

Kanghee Lee[1]; Jagang Park[1]; Bong Joo Kang[1]; Won Tae Kim[1]; Hyeon-Don Kim[1]; Soo-Jeong Baek[1]; Kwang Jun Ahn[2]; Bumki Min[1]; Fabian Rotermund[1]
[1]KAIST, Korea, Republic of; [2]Ajou University, Korea, Republic of

15:15 **Damage And Micropattern Formation In Ge-Sb-Te Phase Change Materials Induced By Intense Terahertz Pulse Train** **Mo-P2-1b-4**

Kotaro Makino[1]; Kosaku Kato[2]; Keisuke Takano[2]; Yuta Saito[1]; Junji Tominaga[1]; Takashi Nakano[1]; Goro Isoyama[3]; Makoto Nakajima[2]
[1]National Institute of Advanced Industrial Science & Technology (AIST), Japan; [2]Institute of Laser Engineering, Osaka University, Japan; [3]Institute of Scienti c and Industrial Research, Osaka University, Japan

15:30 **[Keynote] Compact THz Accelerators: From Fiction To Reality** **Mo-P2-1b-5**

Franz Kärtner[1]; Dongfang Zhang[2]; Arya Fallahi[2]; Michael Hemmer[2]; Moein Fakhari[2]; Yi Hua[2]; Huseyin Cankaya[2]; Anne-Laure Calendron[2]; Luis Zapata[2]; Nicholas Matlis[2]
[1]CFEL-DESY / University of Hamburg, Germany; [2]CFEL-DESY, Germany

14:30 - 16:00 **Mo-P2-1c Laser Driven THz Sources I** **Room 133+134**

Chair: Michael I. Bakunov

14:30 **Spin-current Related Terahertz Emission From The Co/Pt Heterostructure** **Mo-P2-1c-1**

Hongsong Qiu; Kosaku Kato; Kazumasa Hirota; Nobuhiko Sarukura; Masashi Yoshimura; Makoto Nakajima
Institute of laser engineering, Japan

14:45 **Coherent Control Of Femtosecond Spin Current Investigated By Polarization Dependent Terahertz Emission Spectroscopy In Ferromagnetic Heterostructures** **Mo-P2-1c-2**

Yang Gao[1]; Deyin Kong[1]; Bo Wang[2]; xiaojun wu[1]; Tianxiao Nie[1]; Li Wang[2]; Cunjun Ruan[1]; Weisheng Zhao[1]; Jungang Miao[1]
[1]Beihang University, China; [2]IOP, CAS, China

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15:00	**[Keynote] Single-Laser Polarization-Controlled Optical Sampling System For THz-TDS** Michael kolano; Oliver Boidol; Stefan Weber; Daniel Molter; Georg von Freymann Fraunhofer ITWM, Germany	**Mo-P2-1c-3**
15:30	**Enhancement Of THz Generation Using Multilayer Spintronic Emitters** Laura Scheuer[1]; Garik Torosyan[2]; Sascha Keller[1]; Evangelos Papaioannou[1]; Rene Beigang[1] [1]University of Kaiserslautern, Germany; [2]Photonic Center Kaiserslautern, Germany	**Mo-P2-1c-4**
15:45	**Properties Of An Optimized Fe/Pt-based Spintronic Terahertz Emitter: Excitation Power And Wavelength Dependences** Valynn Katrine Mag-usara[1]; Garik Torosyan[2]; Jessica Afalla[1]; Joselito Muldera[1]; Dmitry Bulgarevich[1]; Hideaki Kitahara[1]; Mary Clare Sison Escaño[1]; Sascha Keller[3]; Laura Scheuer[3]; Johannes L'huillier[2]; René Beigang[3]; Evangelos Th. Papaioannou[3]; Masahiko Tani[1] [1]Research Center for Development of Far-Infrared Region, University of Fukui, Japan; [2]Photonic Center Kaiserslautern and Research Center OPTIMAS, University of Kaiserslautern, Germany; [3]Research Center OPTIMAS and Department of Physics, University of Kaiserslautern, Germany	**Mo-P2-1c-5**

14:30 - 16:00	**Mo-P2-1a Applications in Industry, Security and Inspection II** **Chair: Martin Koch**	**Room 141+142**
14:30	**Real Time Thickness Measurement Based On Terahertz Time-domain Spectroscopy For Chip-top Epoxy Molding Compound In Semiconductor Package** Gyung-Hwan Oh[1]; Dong-Woon Park[2]; Dug-Joong Kim[2]; Hak-Sung Kim[2] [1]Hanyang university, Korea, Republic of; [2]Hanyang University, Korea, Republic of	**Mo-P2-1a-1**
14:45	**Visualization Of The Internal Field In The GaAs-based Solar Cell Under Its Operating Condition With Terahertz Radiation**	**Mo-P2-1a-2**

	Keita Miyagawa[1]; Masaya Nagai[1]; Changsu Kim[2]; Hidefumi Akiyama[2]; Yoshihiko Kanemitsu[3]; Masaaki Ashida[1] [1]Osaka University, Japan; [2]The University of Tokyo, Japan; [3]Kyoto University, Japan	
15:00	**Evaluation Of Li-ion Battery Using A Terahertz Chemical Microscope** Yuki Akiwa; Kentaro Fujiwara; Yumi Yoshikawa; Takashi Teranishi; Kenji Sakai; Toshihiko Kiwa; Keiji Tsukada Okayama University, Japan	**Mo-P2-1a-3**
15:15	**Millimeter-Wave Discharge Below Critical Intensity Using A 28 GHz Gyrotron** Kuniyoshi Tabata[1]; Yusuke Nakamura[1]; Kimiya Komurasaki[1]; Tsuyoshi Kariya[2]; Ryutaro Minami[2] [1]The University of Tokyo, Japan; [2]University of Tsukuba, Japan	**Mo-P2-1a-4**
15:30	**Interferometry-aided Terahertz Time-domain Spectroscopy For Robust Measurements In Reflection** Daniel Molter[1]; Stefan Weber[1]; Tobias Pfeiffer[1]; Jens Klier[1]; Sebastian Bachtler[1]; Frank Ellrich[2]; Joachim Jonuscheit[1]; Georg von Freymann[1] [1]Fraunhofer ITWM, Germany; [2]TH Bingen, Germany	**Mo-P2-1a-5**
15:45	**Extremely Fast Thickness Measurements With An ECOPS-Based TD-THz System** Milad Yahyapour[1]; Katja Dutzi[1]; Bernhard Schmauss[2]; Patrick Leisching[1]; Nico Vieweg[1]; Anselm Deninger[1] [1]TOPTICA Photonics AG, Germany; [2]University Erlangen-Nürnberg, Germany	**Mo-P2-1a-6**

14:30 - 15:30	**Mo-P2-R2 Applications in Biology and Medicine I** **Chair: Emma MacPherson**	**Reception Hall**
14:30	**[Keynote] The 2018 Young Scientist Award Lecture: Terahertz Diagnostics In Multidisciplinary Fields** Enrique Castro-Camus Centro de Investigaciones en Optica A.C., Mexico	**Mo-P2-R2-1**
15:00	**Three-color Spectroscopic Terahertz Images As An Indicator For Diabetic Foot Syndrome Deterioration**	**Mo-P2-R2-3**

Goretti Hernandez-Cardoso[1]; Mariana Alfaro-Gomez[2]; S. Carolina Rojas-Landeros[3]; Irving Salas-Gutierrez[4]; Enrique Castro-Camus[3]
[1]Centro de Investigaciones en Optica, A.C., Mexico; [2]Universidad Autonoma de Aguascalientes, Mexico; [3]Centro de Investigaciones en Optica, Mexico; [4]Hospital Angeles Leon, Mexico

15:15 **Low Frequency PCA Studies For Breast Tissue Segmentation** **Mo-P2-R2-4**

Quentin Cassar[1]; Amel Al-Ibadi[1]; Laven Mavarani[2]; Philipp Hillger[2]; Janusz Grzyb[2]; Gaëtan MacGrogan[3]; Ullrich Pfeiffer[2]; Thomas Zimmer[1]; Jean-Paul Guillet[1]; Mounaix Patrick[1]
[1]Laboratoire de l'Intégration du Matériau au Système (IMS), France; [2]Institute for High-Frequency, and Communication Technology, Germany; [3]Institut Bergonié, Centre Régional de Lutte Contre le Cancer, France

14:30 - 16:00 **Mo-P2-4 Devices, Components, and Systems II** **Room 432**

Chair: Yukio Kawano

14:30 **Electrically Tunable Terahertz Liquid Crystal Spatial Phase Shifter** **Mo-P2-4-1**

Kaidi Li; Rui Zhang
the Chinese University of Hong Kong, Hong Kong

14:45 **A Near-perfect THz Modulator Enabled By Impedance Matching Method With VO2 Thin Films** **Mo-P2-4-2**

Liang-Hui Du[1]; Hong-Fu Zhu[2]; Jiang Li[1]; Qi-Wu Shi[2]; Li-Guo Zhu[1]
[1]Institute of Fluid Physics, China Academy of Engineering Physics, China; [2]College of Materials Science and Engineering, Sichuan University, China

15:00 **Transmission Loss In Coplanar Waveguide And Planar Goubau Line Between 0.75 THz And 1.1 THz** **Mo-P2-4-3**

Juan Cabello-Sánchez; Helena Rodilla; Vladimir Drakinskiy; Jan Stake
Chalmers University of Technology, Sweden

15:15 **Comparative Study Of Terahertz Waveguides In Reflection Mode Configuration** **Mo-P2-4-4**

Mingming Pan[1]; Jean-Paul Guillet[2]; Georges Humbert[3]; Frédéric Fauquet[4]; Dean Lewis[4]; Patrick Mounaix[4]
[1]Bordeaux University, IMS Laboratory, UMR 5218CNRS, 351 cours de la libération 33405, France, France; [2]Bordeaux University, IMS laboratory, France; [3]XLIM Research Institute, UMR 7252 CNRS University of Limoges, Limoges, France, France; [4]Bordeaux University, IMS Laboratory, UMR CNRS 5218, 351 cours de la libération 33405, France, France

15:30 **[Keynote] Characterizing A Terahertz-driven Dielectric-lined Waveguide For Electron Beam Manipulation** **Mo-P2-4-5**

Morgan Hibberd[1]; Vasileios Georgiadis[1]; Alisa Healy[2]; Graeme Burt[2]; Steven Jamison[3]; Darren Graham[1]
[1]School of Physics and Astronomy & Photon Science Institute, The University of Manchester, United Kingdom; [2]Department of Engineering, Lancaster University, United Kingdom; [3]Department of Physics, Lancaster University, United Kingdom

16:30 - 18:00 **Mo-P3-R1 Spectroscopy and Material Properties III** **Shirotori Hall**

Chair: Rohit Prativadi Prasankumar

16:30 **[Keynote] High-Tc Superconducting Metasurfaces For Ultra-strong Coupling Experiments At THz Frequencies** **Mo-P3-R1-1**

Janine Keller; Giacomo Scalari; Felice Appugliese; Eleni Mavrona; Martin Süess; Mattias Beck; Jerome Faist
ETH Zürich, Switzerland

17:00 **Terahertz Photoconductivity In Optimally And Underdoped YBa2Cu3O7-δ** **Mo-P3-R1-2**

Alexandra Galeeva[1]; Alexey Parafin[2]; Dmitry Masterov[2]; Sergey Pavlov[2]; Andrey Pankratov[2]; Sergey Danilov[3]; Ludmila Ryabova[1]; Dmitry Khokhlov[1]
[1]M.V. Lomonosov Moscow State University, Russian Federation; [2]Institute for Physics of Microstructures RAS, Russian Federation; [3]University of Regensburg, Germany

17:15	**Picoseconds Ion Motions In Materials For Solid Oxide Fuel Cell** Tomohide Morimoto[1]; Masaya Nagai[2]; Masaaki Ashida[3]; Yoichiro Yokotani[4]; Yuji Okuyama[5]; Yukimune Kani[6] [1]Osaka University, Japan; [2]Graduate School of Engineering Science/Osaka University, Panasonic Science Research Alliance Laborat, Japan; [3]Graduate School of Engineering Science/Osaka University, Japan; [4]3rd Division, Institute for Academic Initiatives/Osaka University, Japan; [5]Department of Environmental Robotics, Faculty of Engineering/University of Miyazaki, Japan; [6]Technology Innovation Division/Panasonic Corporation, Japan	**Mo-P3-R1-3**
17:30	**Characterization Of Materials In The 50-750 GHz Range Using A Scatterometer** Tonny Rubaek[1]; Per Heighwood Nielsen[1]; Cecilia Cappellin[1]; Roger Appleby[2]; Richard Wylde[3]; Phil Atkin[4]; Elena Saenz[5] [1]TICRA, Denmark; [2]Roger Appleby MMW Consulting, United Kingdom; [3]Thomas Keating Ltd., United Kingdom; [4]Pixel Analytics, United Kingdom; [5]ESA/ESTEC, Netherlands	**Mo-P3-R1-4**
17:45	**Phase Delay Of Terahertz Fabry-Perot Resonator Characterized By A Photonic Two-Tone Spectroscopy System With Self-Heterodyne Receiver** Sebastian Dülme[1]; Nils Schrinski[1]; Matthias Steeg[1]; Peng Lu[1]; Besher Khani[1]; Carsten Brenner[2]; Martin R. Hofmann[2]; Andreas Stöhr[1] [1]University of Duisburg-Essen, Germany; [2]Ruhr Universität Bochum, Germany	**Mo-P3-R1-5**

16:30 - 18:00	**Mo-P3-1b High-Field THz Wave Generation and Nonlinear THz Physics III** **Chair: Alexander P. Shkurinov**	**Room 131+132**

16:30	**In Situ Observation Of LIPSS Formation On Si Wafers Under THz-FEL Irradiation**	**Mo-P3-1b-1**

	Takeshi Nagashima[1]; Akinori Irizawa[2]; Masaki Hashida[3]; Atsushi Higashiya[1]; Shigemasa Suga[2]; Shuji Sakabe[3] [1]Setsunan University, Japan; [2]Osaka University, Japan; [3]Kyoto University, Japan	
16:45	**Gain Recovery Dynamics In Broadband Terahertz Quantum Lasers** Christian Georg Derntl[1]; Giacomo Scalari[2]; Mattias Beck[2]; Jérôme Faist[2]; Karl Unterrainer[1]; Juraj Darmo[1] [1]TU Wien, Austria; [2]ETH Zürich, Switzerland	**Mo-P3-1b-2**
17:00	**Third Harmonic Generation From InSb Excited By Free Electron Laser** Thanh Nhat Khoa Phan[1]; Kosaku Kato[1]; Goro Isoyama[2]; Masashi Yoshimura[1]; Shinsuke Fujioka[1]; Makoto Nakajima[1] [1]Institute of Laser Engineering, Osaka University, Japan; [2]Research Laboratory for Quantum Beam Science, Osaka University, Japan	**Mo-P3-1b-3**
17:15	**Dual-mode Tunable Terahertz Generation In Lithium Niobate Driven By Spatially Shaped Femtosecond Laser** Sen-Cheng Zhong China Academy of Engineering Physics, China	**Mo-P3-1b-4**
17:30	**[Keynote] Terahertz Rectification In A Triangular Ring Of Quantum Barriers** Dai-Sik Kim Seoul National university, Korea, Republic of	**Mo-P3-1b-5**

16:30 - 18:00	**Mo-P3-1c Laser Driven THz Sources II** **Chair: József A. Fülöp**	**Room 133+134**
16:30	**Magnetic-field Patterning Of A Spintronic Source For Arbitrary Terahertz Polarization Control**	**Mo-P3-1c-1**

Morgan Hibberd[1]; Daniel Lake[1]; August Johansson[2]; Thomas Thomson[2]; Steven Jamison[3]; Darren Graham[1]
[1]School of Physics and Astronomy & Photon Science Institute, The University of Manchester, United Kingdom; [2]School of Computer Science, The University of Manchester, United Kingdom; [3]Accelerator Science and Technology Centre, Science and Technology Facilities Council, Daresbury Labo, United Kingdom

16:45 **Continuous Wave Generation Up To 1.3 THz Using Antenna-coupled Silicon Integrated Ge Photodiodes.** **Mo-P3-1c-2**

Peter Offermans[1]; Lei Zhang[2]; Peter De Heyn[3]; Sofie Janssen[3]; Sadhishkumar Balakrishnan[3]; Xavier Rottenberg[3]; Joris Van Campenhout[3]
[1]imec, Netherlands; [2]imec, United States; [3]imec, Belgium

17:00 **Improving Efficiency Of Terahertz Photoconductive Antenna Using Dielectric Nano-Layer Encapsulation** **Mo-P3-1c-3**

ABHISHEK GUPTA[1]; GOUTAM RANA[2]; ARKABRATA BHATTACHARYA[3]; ABHISHEK SINGH[4]; RAVIKUMAR JAIN[3]; RUDHEER D. BAPAT[3]; S.P DUTTAGUPTA[2]; S.S. PRABHU[3]; Shriganesh Prabhu[3]
[1]Tata Institute of Fundamental Research, India; [2]INDIAN INSTITUTE OF TECHNOLOGY, MUMBAI, India; [3]TATA INSTITUTE OF FUNDAMENTAL RESEARCH, MUMBAI, India; [4]HELMHOLTZ ZENTRUM DRESDAN ROSSENDORF, GERMANY, Germany

17:15 **Terahertz-Wave Generation Devices Using Electro-Optic Polymer Waveguides And Terahertz-Wave Low-Loss Cladding Materials** **Mo-P3-1c-4**

Takahiro Kaji; Yukihiro Tominari; Toshiki Yamada; Shingo Saito; Isao Morohashi; Akira Otomo
National Institute of Information and Communications Technology (NICT), Japan

17:30 **[Keynote] High-efficiency Sub-single-cycle THz Wave Generation By Three-color Air Plasma** **Mo-P3-1c-5**

Binbin Zhou; Yazhou Wang; Lujun Hong; Daena Madhi; Peter Jepsen
Department of Photonics Engineering, Technical University of Denmark, Denmark

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16:30 - 18:00	**Mo-P3-1a Applications in Industry, Security and Inspection III** **Chair: Vincent Wallace**	**Room 141+142**
16:30	**New Terahertz Security Body Scanner** Gombo Tsydynzhapov; Pavel Gusikhin; Vyacheslav Muravev; Ivan Andreev; Igor Kukushkin TeraSense Group, Inc., United States	**Mo-P3-1a-1**
16:45	**[Keynote] Volume Inspection Of Composite Structures In Aircraft Radomes With FMCW Terahertz Radar At 100 And 150 GHz** Maris Bauer[1]; Andreas Keil[1]; Carsten Matheis[1]; Joachim Jonuscheit[1]; Michael Moor[2]; David Denman[3]; Jamie Bramble[3]; Nick Savage[3]; Fabian Friederich[1] [1]Fraunhofer ITWM, Germany; [2]Meggitt Polymmers and Composites, United Kingdom; [3]Meggitt Polymers and Composites, United Kingdom	**Mo-P3-1a-2**
17:15	**Study Of 3D Imaging Using A CW Diode Terahertz Source For Practical Applications** Homare Momiyama[1]; Yoshiaki Sasaki[2]; Isao Yoshimine[2]; Shigenori Nagano[1]; Tetsuya Yuasa[3]; Chiko Otani[2] [1]Topcon Corporation, Japan; [2]RIKEN, Japan; [3]Yamagata University, Japan	**Mo-P3-1a-3**
17:30	**Monitoring Soybean Leaf Water Status Using Terahertz Spectroscopy** BIN LI NERCITA, China	**Mo-P3-1a-4**
17:45	**Optical Response Change Of Black Rubbers Under Cyclic DeformationInvestigated By Terahertz Polarization Spectroscopy** Takato Tsujimoto; Atsuto Moriwaki; Misako Fujii; Makoto Okano; Shinichi Watanabe Keio University, Japan	**Mo-P3-1a-5**
16:30 - 18:00	**Mo-P3-R2 Applications in Biology and Medicine II** **Chair: Thomas Kleine-Ostmann**	**Reception Hall**
16:30	**[Keynote] Intensity-dependent Suppression Of Calcium Signaling In Human Skin Tissue Models Induced By Intense THz Pulses**	**Mo-P3-R2-1**

Cameron Hough[1]; David Purschke[1]; Chenxi Huang[1]; Lyubov Titova[2]; Olga Kovalchuk[3]; Brad Warkentin[1]; Frank Hegmann[1]
[1]University of Alberta, Canada; [2]Worcester Polytechnic Institute, United States; [3]University of Lethbridge, Canada

17:00 **Label-free Monitoring Of Cell Death Induced By Oxidative Stress In Living Human Cells Using Terahertz ATR Spectroscopy** **Mo-P3-R2-2**

Yi Zou; Qiao Liu; Jianheng Zhao; Liguo Zhu
China Academy of Engineering Physics, China

17:15 **(Withdrawn)** **Mo-P3-R2-3**

17:30 **The Effect Of Pressure On Terahertz In Vivo Spectroscopic Imaging** **Mo-P3-R2-4**

Jiarui Wang[1]; Rayko I. Stantchev[1]; Qiushuo Sun[1]; Emma Pickwell- MacPherson[2]
[1]The Chinese University of Hong Kong, Hong Kong; [2]Warwick University, United Kingdom

17:45 **Detection Of Volatile Organic Compounds In Exhaled Human Breath By Millimeter-Wave/Terahertz Spectroscopy** **Mo-P3-R2-5**

Nick Rothbart[1]; Klaus Schmalz[2]; Johannes Borngräber[2]; Dietmar Kissinger[2]; Heinz-Wilhelm Hübers[3]
[1]Humboldt-Universität zu Berlin, Germany; [2]IHP, Germany; [3]German Aerospace Center (DLR), Germany

16:30 - 18:00 **Mo-P3-4 Devices, Components, and Systems III Room 432**

Chair: Withawat Withayachumnankul

16:30 **Results From Mm-Wave Accelerating Structure High-Gradient Tests** **Mo-P3-4-1**

Emilio Nanni[1]; Valery Dolgashev[1]; Sudheer Jawla[2]; Jeffrey Neilson[1]; MOHAMED AHMED OTHMAN[1]; Julian Picard[2]; Samuel Schaub[2]; Bruno Spataro[3]; Sami Tantawi[1]; Richard Temkin[2]
[1]SLAC, United States; [2]MIT, United States; [3]INFN-LNF, Italy

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16:45	**Pseudospark-sourced Sheet Electron Beam For Application In High Power Millimeter Wave Radiation Generation** Huabi Yin[1]; Guoxiang Shu[2]; Liang Zhang[1]; Wenlong He[1]; Junping Zhao[3]; Alan Phelps[1]; Adrian Cross[1] [1]University of Strathclyde, United Kingdom; [2]Shenzhen University, China; [3]Xi'an Jiaotong University, China	**Mo-P3-4-2**
17:00	**Nano-structured Top Contact With Low Optical Polarization Dependence For THz Generation Using Photodiodes** Sara Bretin; Emilien Peytavit; Maximilien Billet; Guillaume Ducournau; Francois Vaurette; Jean-Francois Lampin; Christophe Coinon; Xavier Wallart; Malek Zegaoui; Mohamed Zaknoune IEMN, France	**Mo-P3-4-3**
17:15	**Graphene Ballistic Rectifiers For THz Detection And Imaging** Gregory Auton[1]; Dmytro But[2]; Jiawei Zhang[1]; Ernie Hill[1]; Dominique Coquillat[2]; Christophe Consejo[2]; Philippe Nouvel[2]; Wojciech Knap[2]; Luca VARANI[2]; Frédéric Teppe[2]; Jeremie TORRES[2]; Aimin Song[1] [1]University of Manchester, United Kingdom; [2]University of Montpellier, France	**Mo-P3-4-4**
17:30	**[Keynote] Planar Asymmetric Semiconductor Nanodiodes For THz Detection** Javier Mateos[1]; Ignacio Iñiguez-de-la-Torre[1]; Susana Pérez[1]; Héctor Sánchez-Martín[1]; José Antonio Novoa[1]; Guillaume Ducournau[2]; Christophe Gaquiére[2]; Tomás González[1] [1]University of Salamanca, Spain; [2]Institut d'Electronique, Microélectronique et Nanotecnologies, IEMN, France	**Mo-P3-4-5**

18:00 - 19:30	**Mo-POS Poster Session**	**Event Hall**
18:00	**Collagen And Muscle Fibrous Tissue As A Contrast Mechanism In The THz Region** Shuting Fan[1]; Zhengfang Qian[1]; Vincent Wallace[2] [1]Shenzhen University, China; [2]The University of Western Australia, Australia	**Mo-POS-01**
18:00	**Investigation Into Polymorphism Of Lamivudine Using Terahertz Time-domain Spectroscopy**	**Mo-POS-02**

	Yong Du[1]; Dan Qin[2]; Huili Zhang[2]; Zhi Hong[2] [1]Centre for THz Research, China Jiliang University, China; [2]China Jiliang University, China	
18:00	**Terahertz Irradiation Stimulates Actin Polymerization** Shota Yamazaki[1]; Masahiko Harata[2]; Toshitaka Idehara[3]; Keiji Konagaya[4]; Ginji Yokoyama[2]; Hiromichi Hoshina[1]; Yuichi Ogawa[4] [1]RIKEN Center for Advanced Photonics, Japan; [2]Tohoku University, Japan; [3]University of Fukui, Japan; [4]Kyoto University, Japan	**Mo-POS-03**
18:00	**Epigenetic Modifications Induced By Submillimeter Wave Exposure** Jody Cantu[1]; Xomalin Peralta[2]; Catherine Millar-Haskell[3]; Cesario Cerna[1]; Ibtissam Echchgadda[3] [1]General Dynamics Information Technology, United States; [2]National Academy of Sciences, United States; [3]AIr Force Research Laboratory, United States	**Mo-POS-04**
18:00	**Impact Of Sub-Millimeter Waves On The Assembly Kinetics Of Microtubules** Xomalin Peralta[1]; Jody Cantu[2]; Cesario Cerna[2]; Ibtissam Echchgadda[1] [1]Air Force Research Laboratory, United States; [2]General Dynamics Information Technology, United States	**Mo-POS-05**
18:00	**Investigation Of Glycation Products By THz Time-domain Spectroscopy** Olga Cherkasova[1]; Maxim Nazarov[2]; Yuri Kistenev[3]; Alexander Shkurinov[4]; Alexey Borisov[3]; Anastasia Knyazkova[3] [1]Institute of Laser Physics of SB RAS, Russian Federation; [2]Kurchatov Institute National Research Center, Russian Federation; [3]Tomsk State University, Russian Federation; [4]Lomonosov Moscow State University;Institute on Laser and Information Technologies of RAS, Russian Federation	**Mo-POS-06**
18:00	**Evaluation Of Penetration Of Cosmetic Liquids Using Terahertz Time Of Flight Method** Taihei Kuroda; Taiga Morimoto; Toshihiko Kiwa; Keiji Tsukada; Kenji Sakai Okayama University, Japan	**Mo-POS-07**

18:00	**Study On Difference Among The THz Spectra Obtained From Commercial Caffeine And Sodium Benzoate (CSB) On The Market** Tomoaki Sakamoto[1]; Tetsuo Sasaki[2]; Yasuto Fujimaki[3]; Toshiyuki Chikuma[1]; Yukihiro Goda[4] [1]National Institute of Health Sciences, Japan; [2]Shizuoka University, Japan; [3]Tokyo Metropolitan Industrial Technology Research Institute, Japan; [4]National Institite of Health Sciences, Japan	**Mo-POS-08**
18:00	**Terahertz Pulse Data Dimensional Reduction And Classification For Hepatic Tissue Samples** Zhenwei Zhang; Haishun Liu; Cunlin Zhang Capital Normal University, China	**Mo-POS-09**
18:00	**Terahertz Polarimetric Sensing For Linear Encoder** Kota Sadamoto[1]; Wataru Tsujita[1]; Yoshitsugu Sawa[1]; Bingnan Wang[2]; Rui Ma[2]; Pu Wang[2]; Koon Hoo Teo[2]; Philip Orlik[2]; Kosaku Kato[3]; Makoto Nakajima[3] [1]Advanced Technology R&D Center, Mitsubishi Electric Corp., Japan; [2]Mitsubishi Electric Research Laboratories, United States; [3]Institute of Laser Engineering, Osaka University, Japan	**Mo-POS-10**
18:00	**Manned Spacecraft Safely Nondestructive Inspection By Terahertz Radiation** Xuling Lin[1]; Zhi Zhang[1]; Xiaoli Ji[2]; Zhongbo Zhu[3] [1]Beijing Institute of Space Mechanics and Electricity, China; [2]Nanjing University, China; [3]National Key Laboratory of Science and Technology on Space Microwave, China	**Mo-POS-11**
18:00	**Terahertz Time Domain Spectroscopy For Plastic Films Using A Tapered Parallel Plate Waveguide** Ayano Kitamura[1]; Ayato Iba[1]; Makoto Ikeda[1]; Makoto Nakajima[2] [1]Sensing Technology Department, Asahi Kasei Corporation, Japan; [2]Institute of Laser Engineering, Osaka University, Japan	**Mo-POS-12**
18:00	**Terahertz Imaging Of Multi-Level Pseudo-Random Reflectance**	**Mo-POS-13**

	Pu Wang[1]; Haoyu Fu[2]; Toshiaki Koike-Akino[1]; Rui Ma[1]; Bingnan Wang[1]; Philip Orlik[1]; Wataru Tsujita[3]; Kota Sadamoto[3]; Yoshitsugu Sawa[3]; Kosaku Kato[4]; Makoto Nakajima[4] [1]Mitsubishi Electric Research Laboratories, United States; [2]Ohio State University, United States; [3]Mitsubishi Electric Corporation Advanced Technology R&D center, Japan; [4]Osaka University, Japan	
18:00	**Quality Evaluation Of Engineered Wood By THz-TDS** Moe Kashima; Satoru Tsuchikawa; Tetsuya Inagaki Nagoya University, Japan	**Mo-POS-14**
18:00	**Inspection Of Microfibril Angle Of Sugi Wood By THz-TDS** Han WANG; Satoru Tsuchikawa; Tetsuya Inagaki Nagoya University, Japan	**Mo-POS-15**
18:00	**Infrared Modulators Based On Liquid Crystals** Urszula Chodorow; Rafał Mazur; Przemysław Morawiak; Wiktor Piecek; Przemysław Kula; Piotr Harmata; Piotr Martyniuk Military University of Technology, Poland	**Mo-POS-16**
18:00	**Four-channel Terahertz Time-domain Spectroscopy System For Industrial Pipe Inspection** Jens Klier[1]; Dmytro Kharik[1]; Wladimir Zwetow[1]; Dominik Gundacker[1]; Stefan Weber[1]; Daniel Molter[1]; Frank Ellrich[2]; Joachim Jonuscheit[1]; Georg von Freymann[1] [1]Fraunhofer ITWM, Germany; [2]TH Bingen, Germany	**Mo-POS-17**
18:00	**Neutron Generator Based On A Plasma Source With Gyrotron Heating** Alexander Sidorov; Sergey Golubev; Ivan Izotov; Roman Lapin; Sergey Razin; Roman Shaposhnikov; Vadim Skalyga; Alexey Bokhanov; Mikhail Kazakov; Sergey Shlepnev; Mikhail Glyavin; Alexander Tsvetkov; Mikhail Morozkin; Mikhail Proyavin; Ivan Plotnikov Institute of Applied Physics, Russian Federation	**Mo-POS-18**
18:00	**Pharmaceutical Analysis Using Broadband Terahertz Quantum Cascade Laser Sources Based On Difference Frequency Generation**	**Mo-POS-19**

Kazuki Horita[1]; Atsushi Nakanishi[1]; Kazuue Fujita[1]; Koichiro Akiyama[1]; Tomoaki Sakamoto[2]; Yukihiro Goda[2]; Hironori Takahashi[1]
[1]HAMAMATSU PHOTONICS K.K., Japan; [2]National Institute of Health Sciences, Japan

18:00 **Quantitative Analysis And Inspection For Pharmaceutical Polymorphism With Injection-seeded Terahertz Parametric Generation Technique** **Mo-POS-20**

Mizuki Mohara; Kenji Aiko; Kei Shimura; Touya Ono
Hitachi high-technologies corp., Japan

18:00 **Ultra-broadband THz Spectroscopy For Sensing And Identification For Security Applications** **Mo-POS-21**

Korbinian Kaltenecker[1]; Binbin Zhou[1]; Kai-Henning Tybussek[2]; Sebastian Engelbrecht[3]; Roy Lehmann[4]; Stewart Walker[4]; Peter Jepsen[1]; Bernd Michael Fischer[2]
[1]Technical University of Denmark, Denmark; [2]French-German Research Institute of Saint-Louis, France; [3]French-German Research Institute of Saint Louis, France; [4]Flinders University, Australia

18:00 **Numerical Study Of Millimeter-Wave Discharge And Application To Launching System For Small Satellites** **Mo-POS-22**

Masayuki Takahashi; Naofumi Ohnishi
Tohoku University, Japan

18:00 **A Design Of Industrial Robot For THz-TDS Nondestructive Testing Application** **Mo-POS-23**

Xiaoli Qiao[1]; Jian Gu[2]; Lijuan Li[2]; Yundong Zhu[2]; Jianjun Xiong[2]; Dacheng Liu[2]
[1]Changchun University of Science and Technology, China; [2]Chengdu Aircraft Design & Research Institute, China

18:00 **A Non-Cooperative Fast Millimeter-Wave Imaging Method By Using MIMO Linear Array** **Mo-POS-24**

Yang Yu; Lingbo Qiao; Ziran Zhao
Tsinghua University, China

18:00 **Numerical Study Of Discharge Physics Induced By Subcritical Millimeter Wave** **Mo-POS-25**

Kanta Hamasaki; Masayuki Takahashi; Naofumi Ohnishi
Tohoku University, Japan

18:00 **Microwave Pyrolysis Of Peat: Simulations And Experimental Results** **Mo-POS-26**

	Tatiana Krapivnitckaia[1]; Alexander Bogdashov[2]; Andrei Denisenko[1]; Mikhail Glyavin[1]; Nikolai Peskov[1]; Ludmila Semenycheva[3]; Dmitry Vorozhtcov[3] [1]Institute of Applied Physics of Russian Academy of Sciences, Russian Federation; [2]Institute of Applied Physics RAS, Russian Federation; [3]Nizhegorodsky State University, Russian Federation	
18:00	**Terahertz Resonator Diagnostics Of Filamentary Dielectric Objects** Alexander Badin; Vitalii Bessonov; Kirill Dorozhkin; Igor Dorofeev; Grigorii Dunaevskii; Ba Hiu Le National Research Tomsk state University, Russian Federation	**Mo-POS-27**
18:00	**Non-Destructive Evaluation Of Soft Body Armour Condition Using Fourier Transform Infrared Spectroscopy** Ebubekir Avci; Mark Tunnicliffe; Salem Alsallal Massey University, New Zealand	**Mo-POS-28**
18:00	**Insulator-Metal Transition In PrYCaCoO3 Thin Films Studied By TerahertzSpectroscopy** Christelle Kadlec[1]; Hynek Němec[1]; Karel Knı´žek[1]; Jiřı´ Hejmánek[1]; Veronica Goian[1]; Josef Buršı´k[2] [1]Institute of Physics, Czech Academy of Sciences, Czech Republic; [2]Institute of Inorganic Chemistry, Czech Academy of Sciences, Czech Republic	**Mo-POS-29**
18:00	**The Prediction Of Laminate Stacking Sequence Of E-glass/epoxy Laminated Composites Using Electromagnetic Behavior Of Terahertz Wave** DongWoon Park; Gyung-Hwan Oh; Hak-Sung Kim Hanyang university, Korea, Republic of	**Mo-POS-30**
18:00	**Charge Carrier Dynamics In Bulk Heterojunction Organic Semiconductor By Optical-Pump Terahertz-Probe Spectroscopy** Yuichi Hiramatsu[1]; Kaoru Ohta[2]; Kohtaro Takahashi[3]; Mitsuharu Suzuki[3]; Hiroko Yamada[3]; Keisuke Tominaga[2] [1]Graduate School of Science, Kobe University, Japan; [2]Molecular Photoscience Research Center, Kobe University, Japan; [3]Division of Materials Science, Graduate School of Science and Technology, NAIST, Japan	**Mo-POS-31**

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18:00	**Anisotropy Of Electrical Properties Of 3D-printing MWCNT Composites At The THz Frequency Range** Alexander Badin; Grigorii Kuleshov; Kirill Dorozhkin; Grigorii Dunaevskii; Valentin Suslyaev; Victor Zhuravlev National Research Tomsk state University, Russian Federation	**Mo-POS-32**
18:00	**An Different Optical Path Scheme To Improve Parameters Extraction In Terahertz Frequency** Dehua Li; BeiBei Ji; Wei Zhou; zhaoxin Li Shandong University of Science &Technology, China	**Mo-POS-33**
18:00	**Varnishes Of Painting Material Studied By Terahertz Spectroscopy** Quentin Cassar[1]; Corinna Koch-Dandolo[1]; Marie Roux[2]; Frédéric Fauquet[1]; Jean-Paul Guillet[1]; Patrick Mounaix[1] [1]Laboratoire de l'Intégration du Matériau au Système (IMS), France; [2]L'Atelier des Renaissances, France	**Mo-POS-34**
18:00	**Low-dimensional Narrow-gap Semiconductors Studied By Photoluminescence Spectroscopy** jun shao; Xiren Chen; Liangqing Zhu Shanghai institute of technical physics, Chinese academy of sciences, China	**Mo-POS-35**
18:00	**Photoluminescence And Terahertz Time-domain Spectroscopy Of MBE-grown Single-layered InAs/GaAs Quantum Dots** Alexander De Los Reyes[1]; John Daniel Vasquez[2]; Lorenzo Lopez, Jr[2]; Hannah Bardolaza[2]; Che-Yung Chang[3]; Der-Jun Jang[3]; Armando Somintac[1]; Arnel Salvador[1]; Elmer Estacio[1] [1]National Institute of Physics, University of the Philippines Diliman, Philippines; [2]Materials Science and Engineering Program, University of the Philippines Diliman, Philippines; [3]Department of Physics, National Sun-Yat-Sen University, Taiwan	**Mo-POS-36**
18:00	**Temperature Dependence Of THz Conductivities Of Polyaniline Emeraldine Salt/Bentonite Pellets**	**Mo-POS-37**

Alvin Karlo Tapia[1]; Lou Serafin Lozada[1]; Keisuke Tominaga[2]
[1]Institute of Mathematical Sciences and Physics, University of the Philippines Los Banos, Philippines; [2]Molecular Photoscience Research Center, Kobe University, Japan

18:00 **β-BBO: Optical Properties And Phase-Matching For THz Wave Generation** **Mo-POS-38**

Alexander Mamrashev[1]; Nazar Nikolaev[1]; Valery Antsygin[1]; Tatyana Bekker[2]; Alexander Kokh[2]; Konstantin Kokh[2]; Grigory Lanskii[3]; Valery Svetlichnyi[4]; Yury Andreev[3]
[1]Institute of Automation and Electrometry SB RAS, Russian Federation; [2]Institute of Geology and Mineralogy SB RAS, Russian Federation; [3]Institute of Monitoring of Climatic and Ecological Systems SB RAS, Russian Federation; [4]Siberian Physical Technical Institute of Tomsk State University, Russian Federation

18:00 **Spatially Resolved Mid-infrared Photoluminescence Of InAs/GaSb Superlattices For Focal Plane Array** **Mo-POS-39**

Xiren Chen; Jun Shao
Shanghai institute of technical physics, China

18:00 **Terahertz Time-Domain Spectroscopy Of Protein Myoglobin: Detectionof Boson Peak And Fracton** **Mo-POS-40**

Leona Motoji[1]; Tatsuya Mori[1]; Yasuhiro Fujii[2]; Akitoshi Koreeda[2]; Kentaro Shiraki[1]; Yohei Yamamoto[1]; Seiji Kojima[1]
[1]Division of Materials Science, University of Tsukuba, Japan; [2]Department of Physical Sciences, Ritsumeikan University, Japan

18:00 **Anisotropy In The Low Energy Dynamics Of semi-metallic CaIrO3 Thin Film** **Mo-POS-41**

Santhosh kumar Kadakuntla
IISER Bhopal, India

18:00 **Demonstration Of Magnetoplasmon Polariton At InSb/dielectric Interface** **Mo-POS-42**

Jan Chochol[1]; Martin Micica[1]; Kamil Postava[1]; Mathias Vanwolleghem[2]; Jean-François Lampin[2]; Michael Cada[3]; Jaromir Pistora[4]
[1]VSB - Technical University Ostrava, Czech Republic; [2]Institut d'Electronique, de Microelectronique et de Nanotechnologie, France; [3]Department of Electrical and Computer Engineering, Dalhousie University, Canada; [4]VSB - Technical University of Ostrava, Czech Republic

18:00 **Development Of NbN Polarization Sensitive KID For Fusion Applications** **Mo-POS-43**

Francesco Mazzocchi[1]; Eduard Driessen[2]; Shibo Shu[2]; Giovanni Grossetti[1]; Dirk Strauss[1]; Theo Scherer[1]
[1]Karlsruhe Institute Of Technology, Germany; [2]IRAM Grenoble, France

18:00 **Broadband High-Directivity THz Photoconductive Antennas Based On A Defective Photonic Crystal Substrate** **Mo-POS-44**

Ehsan Rahmati; Mehdi Ahmadi-Boroujeni
Sharif University of Technology, Iran

18:00 **Monolithic Integrated Ka-band Frequency Doublers Based On GaN Schottky Barrier Diodes** **Mo-POS-45**

Li Li; Jianping Zeng; Ning An; Jun Jiang; Xianjin Deng
Microsystem and Terahertz Research Center, Institute of Electronic Engineering, China Academy of Eng, China

18:00 **Basic Performance Of Rectangular Waveguide Type Liquid Crystal Phase Shifter Driven By Magnetic Field** **Mo-POS-46**

Toshiaki Nose; Tomoya Ito; Ryota Ito; Michinori Honma
Akita Pref. Univ., Japan

18:00 **High Terahertz Transmittance And Blocking IR Background Noise Package Window Design For Terahertz Focal Plane Array Detectors** **Mo-POS-47**

Jun Wang
School of Optoelectronic Science and Engineering, University of Electronic Science and Technology of, China

18:00 **Waveguide Coupling Of Resonant-Tunneling Diode Terahertz Oscillator** **Mo-POS-48**

	Hironori Matsumoto[1]; Safumi Suzuki[2]; Masahiro Asada[2]; Yasuaki Monnai[1] [1]Keio University, Japan; [2]Tokyo Institute of Technology, Japan	
18:00	**Design Of 0.27-0.37THz Wideband Coaxial Line To Double-ridge Waveguide Window For Traveling-Wave Tube Amplifier** Gangxiong Wu[1]; Hairong Yin[1]; Fan Wang[1]; Ruichao Yang[1]; Qian Li[1]; Xia Lei[1]; Chong Ding[1]; Shuangzhu Fang[1]; Xuebin Jiang[1]; Pengcheng Yin[1]; Lingna Yue[1]; Jin Xu[1]; Wenxiang Wang[1]; Zhun Xu[1]; Daxi Ji[2]; Yun Chen[2]; Yanyu Wei[1] [1]University of Electronic Science and Technology of China, China; [2]NanJing Sanle Group Co.Ltd, China	**Mo-POS-49**
18:00	**Liquid Crystal Based Terahertz Phase Shifter With Bi-Layer Structure** Anup Kumar Sahoo[1]; Chan-Shan Yang[2]; Chun-Ling Yen[1]; Hung Chun Lin[3]; Yu-Jen Wang[3]; Yi-Hsin Lin[3]; Osamu Wada[4]; Ci-Ling Pan[1] [1]National Tsing Hua University, Taiwan; [2]National Taiwan Normal University, Taiwan; [3]National Chiao Tung University, Taiwan; [4]Kobe University, Japan	**Mo-POS-50**
18:00	**InP-Based Grounded Coplanar Waveguide To WR3 Transition For Monolithic Integration With THz Photodiodes** Besher Khani; Sumer Makhlouf; Sebastian Dülme; Andreas Stöhr University of Duisburg-Essen, Germany	**Mo-POS-51**
18:00	**Graphene Based Organic Optical Terahertz Modulator** Bo Zhang[1]; Guocui Wang[1]; Hongyu Ji[1]; Bin Li[2]; Jingling Shen[1] [1]Department of Physics, Capital Normal University, China; [2]Beijing Research Center for information technology in Agriculture, China	**Mo-POS-52**
18:00	**Active Optically-controlled Broadband Terahertz Modulator Based On Fe3O4 Nanoparticles** Bo Zhang; Luyao Xiong; Jingling Shen Department of Physics, Capital Normal University, China	**Mo-POS-53**
18:00	**Modelling And Study Of A THz Hollow Photonic Crystal Integrated Waveguide**	**Mo-POS-54**

	Binbin Hong; Nutapong Somjit; John Cunningham; Ian Robertson University of Leeds, United Kingdom	
18:00	**A 0.55 THz On-Chip Substrate Integrated Waveguide Antenna** Kirti Dhwaj[1]; Yan ZHAO[2]; richard Al hadi[2]; M.C. Frank Chang[2]; Xiaoqiang Li[2]; Tatsuo Itoh[2] [1]University of California, Los Angeles, United States; [2]UCLA, United States	**Mo-POS-55**
18:00	**Liquid Crystal Based Terahertz Devices** Lei Wang[1]; Makoto Nakajima[2]; Yanqing Lu[3] [1]Nanjing University of Posts and Telecommunications, China; [2]Osaka University, Japan; [3]Nanjing University, China	**Mo-POS-56**
18:00	**Parallel Architecture Of A Sine Waveguide Traveling Wave Tube Amplifier** Giacomo Ulisse; Viktor Krozer Johann Wolfgang Goethe-Universität, Germany	**Mo-POS-57**
18:00	**Versatile Photonic Integrated Optical Frequency Combs Generators For Millimeter-Wave Generation** Guillermo Carpintero; Mu Chieh Lo; Alberto Zarzuelo; Robinson C Guzman; Horacio Lamela Universidad Carlos III de Madrid, Spain	**Mo-POS-58**
18:00	**Study Of Two-section Rectangular Beam TWTs Based On Folded Waveguide** Fengying Lu; Yong Wang; Guohui Zhao; Long Yao University of Chinese Academy of Sciences, China	**Mo-POS-59**
18:00	**Development Of Terahertz Radiation Source With Slit-Array Structure**	**Mo-POS-60**

Dazhi Li[1]; T. N. K. Phan[2]; K. Kato[2]; M. Nakajima[2]; M. R. Asakawa[3]; M. Hashida[4]; M. Tani[5]; W. Liu[6]; Y. Wei[7]
[1]Institute for Laser Technology, Japan; [2]Institute of Laser Engineering, Osaka University, Japan; [3]Faculty of Engineering Science, Kansai University, Japan; [4]Advanced Research Center for Beam Science, ICR, Kyoto University, Japan; [5]Research Center for Development of Far-Infrared Region, University of Fukui, Japan; [6]Key Laboratory of High Power Microwave Sources and Technologies, Institute of Electronics, Chinese A, China; [7]School of Physical Electronics, University of Electronic Science and Technology of China, China

18:00 **An Advanced Terahertz EIO Operating With TM31 Mode** **Mo-POS-61**

Shuang Li; Dongyang Wang; Yan Teng; Guangqiang Wang
northwest institute of nuclear technology, China

18:00 **Sheet Beam Electron Gun With High Current For 220 GHz TWT** **Mo-POS-62**

Shengkun Jiang[1]; Zhaoyun Duan[2]; Guang Yang[2]; Leidong Jin[2]; Xirui Zhan[2]; Hanwen Tian[2]; Zhanliang Wang[2]; Huarong Gong[2]; Yubin Gong[2]
[1]University of Electronic Science and Technology of China, China; [2]School of Electronic Science and Engineering, University of Electronic Science and Technology of Chi, China

18:00 **Enhancement Of Electric Field In E-plane Sectoral Horn Antennas Reconsidered By Plasmonic Theory** **Mo-POS-63**

Kazuyoshi Kurihara[1]; Kiwamu Kusama[1]; Fumiyoshi Kuwashima[2]; Osamu Morikawa[3]; Kohji Yamamoto[1]; Hideaki Kitahara[1]; Masahiko Tani[1]
[1]University of Fukui, Japan; [2]Fukui University of Technology, Japan; [3]Japan Coast Guard Academy, Japan

18:00 **Terahertz Wave Parametric Amplifier With An Amplification Factor Of Two Billion** **Mo-POS-64**

yunzhuo guo; kousuke murate; kazuki maeda; kodo kawase
nagoya university, Japan

18:00 **Optical Generation Of High-power Terahertz Pulses For Tunable Wave Source** **Mo-POS-65**

Isao Yoshimine; Masatsugu Yamashita; Hiromichi Hoshina; Mikiko Saito; Hiroaki Minamide; Chiko Otani
RIKEN Center for Advanced Photonics, Japan

18:00 **THz-range Emission Based On Transformation Of Plasma Waves Pumped By High-current Relativistic Electron Beam** **Mo-POS-66**

Andrey Arzhannikov[1]; Vladimir Annenkov[2]; Vladimir Burmasov[2]; Ivan Ivanov[2]; Aleksandr Kasatov[2]; Sergey Kuznetsov[1]; Maksim Makarov[2]; Konstantin Mekler[1]; Sergey Polosatkin[2]; Vladimir Postupaev[2]; Andrey Rovenskikh[2]; Denis Samtsov[1]; Stanislav Sinitsk[2]; Vladislav Sklyarov[2]; Vasili Stepanov[2]; Igor Timofeev[2]; Evgenia Volchok[2]; Manfred Thumm[1]
[1]Novosibirsk State University, Russian Federation; [2]Budker Institute of Nuclear Physics, Russian Federation

18:00 **Super-intense Solid-state Terahertz Sources** **Mo-POS-67**

xiaojun wu
Beihang University, China

18:00 **Enhancement Of THz EO Sampling Signal By Polarization Filtering** **Mo-POS-68**

Hiroyuki Kato[1]; Hideaki Kitahara[1]; Takuro Yasumoto[1]; Daiki Goto[1]; Masaki Shiihara[1]; Jessica Afalla[1]; Valynn Mag-usara[1]; Dmitry Bulgarevich[1]; Clare Escaño[1]; Kohji Yamamoto[1]; Takashi Furuya[1]; Michael Bakunov[2]; Elmer Estacio[3]; Masahiko Tani[1]
[1]Res. Center for Dev. of FIR Region, Univ. Fukui, Japan; [2]Univ. Nizhny Novgorod, Russian Federation; [3]National Institute of Physics, Univ.Philippines, Philippines

18:00 **Terahertz Emission Enhancement Of I-/n-Gallium Arsenide Thin Film On A Porous Silicon Distributed Bragg Reflector Designed At 800nm** **Mo-POS-69**

Ameera Jose[1]; Anthony Montecillo[1]; Joybelle Lopez[1]; Alexander De los Reyes[2]; Miguel Bacaoco[2]; Maria Angela Faustino[1]; Arven Cafe[2]; John Daniel Vasquez[2]; Karl Cedric Gonzales[2]; Gerald Angelo Catindig[2]; Armando Somintac[2]; Arnel Salvador[2]; Elmer Estacio[2]
[1]Materials Science and Engineering Program, University of the Philippines Diliman, Philippines; [2]National Institute of Physics, University of the Philippines Diliman, Philippines

18:00 **Physical Design Of The Pre-bunched THz FEL At NSRL** **Mo-POS-70**
Ruixuan Huang; Zhouyu Zhao; Weihao Liu; Weiwei Li; Heting Li; Zhigang He; Qika Jia; Lin Wang; Yalin Lu
University of Science and Technology of China, China

18:00 **Finite-difference Time-domain Simulation Of Terahertz Pulse Generation By Non-collinear Phase Matching Using Obliquely Crossed Optical Pulses** **Mo-POS-71**
Ken Morita; Yuta Osumi; Yoshihiro Ishitani
Chiba University, Japan

18:00 **Enhancement Of THz-QTDS Performance By Pulsed Laser Operation** **Mo-POS-72**
Arno Rehn[1]; Mikhail Mikerov[1]; Sascha Preu[2]; Martin Koch[1]; Jan Balzer[3]
[1]Philipps University Marburg, Germany; [2]Technical University Darmstadt, Germany; [3]University of Duisburg-Essen, Germany

18:00 **Asymmetric Terahertz Radiation From A Thin Foil Irradiated By Ultrashort Relativistic Laser Pulse** **Mo-POS-73**
Shota Tajima
Osaka university, Japan

18:00 **A Compact Terahertz CW HCN Dual Laser And Its Stability Control** **Mo-POS-74**
Jiaxing Xie[1]; Haiqing Liu[1]; Junjie Shen[2]
[1]ASIPP, China; [2]Tianjin University of Technology, China

18:00 **Properties Of Terahertz Wave Emission From Nano-porous GoldExcited By Femtosecond Laser Pulses** **Mo-POS-75**

	Kosaku Kato[1]; Takashi Kashihara[1]; Thanh Nhat Khoa Phan[1]; Keisuke Takano[2]; Marjan Akbari[3]; Teruya Ishihara[3]; Masashi Yoshimura[1]; Makoto Nakajima[1] [1]Osaka University, Japan; [2]Shinshu University, Japan; [3]Tohoku University, Japan	
18:00	**High Efficient Dichroic Beam Splitter For Terahertz Gas Laser** Chuang Liu[1]; Lijuan Li[1]; Qingmao Zhang[2]; Jianjun Xiong[2]; Ping Huang[2]; Jianchuan Li[3]; Longgang Qin[3] [1]Changchun University of Science and Technology, China; [2]Chengdu Aircraft Design Institute, China; [3]Chengdu Aircraft Industrial (Group) Co., Ltd, China	**Mo-POS-76**
18:00	**(Withdrawn)**	**Mo-POS-77**
18:00	**Development Of The Cyclotron Radiation Source With Vortex Property** Yuki Goto Nagoya University, Japan	**Mo-POS-78**
18:00	**Monocycle Terahertz Vortex Generation By Tsurupica Spiral Phase Plate** Katsuhiko Miyamoto[1]; Bong Joo Kang[2]; Yuta Sasaki[1]; Won Tae Kim[2]; Takahiro Miyakawa[1]; Fabian Rotermund[2]; Takashige Omatsu[1] [1]Chiba University, Japan; [2]KAIST, Korea, Democratic People's Republic of	**Mo-POS-79**
18:00	**Theory For High-Field Narrowband THz Generation Via Colliding At An Oblique Angle Plasma Wakefields** Evgeniia Volchok; Igor Timofeev; Vladimir Annenkov Budker Institute of Nuclear Physics, Russian Federation	**Mo-POS-80**
18:00	**Enhancement Of THz Energy Generated From Two Colour Laser Induced Air Plasma Using Chirped Pulses** Sonal Saxena[1]; Suman Bagchi[2]; M. Tayyab[2]; J. A. Chakera[2] [1]Raja Ramanna Centre for Advanced Technology, India; [2]RAJA RAMANNA CENTRE FOR ADVANCED TECHNOLOGY, India	**Mo-POS-81**
18:00	**Enhancing The Energy Of THz Emission From Air Plasma Using Two-color nonlinearly Chirped Laser Pulses**	**Mo-POS-82**

Morteza Karimi; Fazel Jahangiri; Ali Reza Niknam; Reza Massudi
Shahid Beheshti Univ., Iran

18:00 **Development Of An Highly Distributed Photoconductor For CW THz Generation** **Mo-POS-83**
Fuanki Bavedilla; Vincent Magnin; Joseph Harari; Dmitri Yarekha; David Troadec; Sylvie Lepilliet; Vanessa Avramovic; Guillaume Ducournau; Jean-François Lampin; Emilien Peytavit
IEMN CNRS/Lille University, France

18:00 **Toward Optimum Conversion Efficiency In 1550-nm THz PC Switches** **Mo-POS-84**
W-D Zhang[1]; Andrea Mingardi[2]; Elliott Brown[3]
[1]TeraPico LLC, United States; [2]Wright State University, United States; [3]Department of Physics, United States

18:00 **Recent Developments And Applications Of Multi-Extreme THz ESR** **Mo-POS-85**
Hitoshi Ohta[1]; Susumu Okubo[2]; Eiji Ohmichi[2]; Takahiro Sakurai[2]; Hideyuki Takahashi[2]; Shigeo Hara[2]
[1]Kobe University, Molecular Photoscience Research Center, Japan; [2]Kobe University, Japan

18:00 **Light-induced Conformational Changes Of Protein Receptors Probed by Difference Mid-IR Microspectroscopy** **Mo-POS-86**
Valeria Giliberti[1]; Raffaella Polito[2]; Alessandro Nucara[2]; Paolo Calvani[2]; Matthias Broser[3]; Peter Hegemann[3]; Ljiljana Puskar[4]; Ulrich Schade[4]; Leonetta Baldassarre[2]; Michele Ortolani[2]
[1]Istituto Italiano di Tecnologia, Centre for Life Nano Science, Italy; [2]Department of Physics, Sapienza University of Rome, Italy; [3]Humboldt-Universität zu Berlin, Institut für Biologie, Germany; [4]Helmholtz-Zentrum Berlin für Materialien und Energie GmbH, Germany

18:00 **Verification Of The Non-thermal Effects Of THz-wave On Human Cells** **Mo-POS-87**
Noriko Yaekashiwa[1]; Sato Otsuki[1]; Hisa Yoshida[1]; Shin'ichiro Hayashi[2]; Kodo Kawase[3]
[1]RIKEN, Japan; [2]RIKEN and NICT, Japan; [3]RIKEN and Nagoya University, Japan

Tuesday, September 11, 2018

08:45 - 09:00	**Announcements**	**Shirotori Hall**
09:00 - 10:30	**Tu-A1-S Plenary Session** **Chair: Franz X. Kaertner**	**Shirotori Hall**
09:00	**Millimeter-Wave Technologies For Body-Centric Applications** Maxim Zhadobov IETR / CNRS, France	**Tu-A1-S-1**
09:45	**Active THz Devices Using Hybrid Lead-Halide Perovskites** Ajay Nahata University of Utah, United States	**Tu-A1-S-2**
11:00 - 12:30	**Tu-A2-R1 Spectroscopy and Material Properties IV** **Chair: Axel Zeitler**	**Shirotori Hall**
11:00	**[Keynote] THz Near-field Imaging And Spectroscopy With Nanoscale Resolution** Aina Reich; Andreas Huber; Max Eisele neaspec GmbH, Germany	**Tu-A2-R1-1**
11:30	**Visualization Of Plasmons In Zero-Dimensional Graphene With Near-Field Infrared Microscopy** Takuya Okamoto[1]; Akira Sasagawa[1]; Yota Harada[2]; Satsuki Nakano[2]; Wataru Norimatsu[2]; Michiko Kusunoki[2]; Yukio Kawano[1] [1]Tokyo Institute of Technology, Japan; [2]Nagoya University, Japan	**Tu-A2-R1-2**
11:45	**Semiconductor Energy Band Structure Characterized By Terahertz Excitation Spectroscopy** Andrius Arlauskas; Vaidas Pačebutas; Renata Butkutė; Ričardas Norkus; Bronislovas Čechavičius; Evelina Pozingytė; Arūnas Krotkus Center for Physical Sciences and Technology, Lithuania	**Tu-A2-R1-3**
12:00	**Extraction Of THz Absorption Signatures Obscured By Rough Surface Scattering Using Discrete Wavelet Transform** Mahmoud Ebrahimkhani; Hassan Arbab Stony Brook University, United States	**Tu-A2-R1-4**

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12:15	**Intra-Excitonic Terahertz Emission From Semiconductors** Alexey Zakhar'in; Alexander Andrianov Ioffe Institute, Russian Federation	**Tu-A2-R1-5**
11:00 - 12:30	**Tu-A2-1b High-Field THz Wave Generation and Nonlinear THz Physics IV** **Chair: Dmitry Turchinovich**	**Room 131+132**
11:00	**[Keynote] Terahertz Field Emission Of Femto-Coulomb Electron Bunches** David Cooke; Dominique Matte; Lauren Gingras; Mark Sutton; Bradley Siwick McGill University, Canada	**Tu-A2-1b-1**
11:30	**[Keynote] Extreme Nonlinear Optics In Transition Metal Dichalcogenide Monolayers** Koichiro Tanaka Department of Physics/Kyoto University, Japan	**Tu-A2-1b-2**
12:00	**Direct Injection Of Ultrashort Electron Bunches Into A Solid Material Using Terahertz-driven Electron Field Emission** Simon Lehnskov Lange; Lars René Lindvold; Peter Uhd Jepsen Technical University of Denmark, Denmark	**Tu-A2-1b-3**
12:15	**Demonstration Of 0.6mJ Multicycle THz Pulses Via Chirp-and-delay Down Conversion Of Broadband Lasers With Precise Spectral Phase Tuning And Large PPLN** Nicholas Matlis[1]; Spencer Jolly[2]; Frederike Ahr[1]; Vincent Leroux[1]; Timo Eichner[1]; Anne-Laure Calendron[1]; Koustuban Ravi[1]; Takunori Taira[3]; Hideki Ishizuki[3]; Andreas Maier[1]; Franz Kaertner[1] [1]DESY (Deutches Elektronen Synchrotron), Germany; [2]University of Hamburg, Germany; [3]Institute for Molecular Science, Japan	**Tu-A2-1b-4**
11:00 - 12:30	**Tu-A2-1c Laser Driven THz Sources III** **Chair: Stefano Barbieri**	**Room 133+134**
11:00	**[Keynote] Generation Of 4 THz Radiation From Lithium-Niobate Off-axis THz Parametric Oscillator**	**Tu-A2-1c-1**

	Yen-Chieh Huang[1]; Yu-Chung Chiu[2]; Tsong-Dong Wang[3]; Gang Zhao[4] [1]Institute of Photonics Technologies, National Tsinghua University, Taiwan; [2]Institute of Photonics Technologies, National Tsing Hua University, Taiwan; [3]Chung-Shan Institute of Science and Technology, Taiwan; [4]Institute of Heavy Ion Physics, Peking University, China	
11:30	**Laser-Plasma Method For Generation Of Few- And Subcycle Pulses In A Broad Spectral Range** Vasily Kostin; Nikolay Vvedenskii Institute of Applied Physics, Russian Academy of Sciences, Russian Federation	**Tu-A2-1c-2**
11:45	**Coherent Terahertz Radiation Emitted By Wide-angle Electron Beams From Laser-Wakefield Accelerators** xue yang[1]; Enrico Brunetti[2]; Dino Jaroszynski[2] [1]Capital Normal University, China; [2]Univeristy of Strathclyde, United Kingdom	**Tu-A2-1c-3**
12:00	**Terahertz Pulses With Strong DC Precursors** Michael I. Bakunov[1]; Evgeny Efimenko[2]; Maxim Tsarev[3]; Sergey Sychugin[1] [1]University of Nizhny Novgorod, Russian Federation; [2]Institute of Applied Physics, Russian Academy of Sciences, Russian Federation; [3]Ludwig-Maximilians-Universität München, Germany	**Tu-A2-1c-4**
12:15	**Two-color Femtosecond Plasma Backward Terahertz Emission** Pavel Chizhov[1]; Alexandr Ushakov[2]; Vladimir Bukin[1]; Nikolay Panov[2]; Daniil Shipilo[2]; Olga Kosareva[2]; Andrei Savel'ev[2]; Sergey Garnov[1] [1]A.M. Prokhorov General Physics Institute of the Russian Academy of Sciences, Russian Federation; [2]M.V. Lomonosov Moscow State University, Russian Federation	**Tu-A2-1c-5**

11:00 - 12:30	**Tu-A2-1a Sources, Detectors, and Receivers I** **Chair: Mona Jarrahi**	**Room 141+142**
11:00	**[Keynote] Field Effect Transistors Based Terahertz Detectors 25 Years History, State Of The Art And Future Directions**	**Tu-A2-1a-1**

Wojciech KNAP[1]; Michal Zaborowski[2]; Jacek Marczewski[2]; Daniel Tomaszewski[2]; Przemyslaw Zagrajek[3]; Dmytro But[1]; Pavlo Sai[1]; Ivan Yahniuk[1]; Nina Dyakonova[4]; Dominique Coquillat[4]; Frederic Teppe[4]; Grzegorz Cywinski[1]
[1]Institute of High Pressure Physics PAS, Poland; [2]Institute of Electron Technology, Poland; [3]Institute of Optoelectronics, Military University of Technology, Poland; [4]Montpellier University & CNRS, France

11:30 **Coupling Of 2D Plasmons In Grating-Gate Plasmonic THz Detector ToTHz Wave With Lateral Polarization** **Tu-A2-1a-2**

Masaya Suzuki[1]; Tomotaka Hosotani[1]; Taiichi Otsuji[1]; Tetsuya Suemitsu[2]; Yuma Takida[3]; Hiromasa Ito[3]; Hiroaki Minamide[3]; Akira Satou[1]
[1]Research Institute of Electrical Communication ,Research Organization of Electrical Communication ,T, Japan; [2]Center for Innovative Integrated Electronic Systems ,Research Organization of Electrical Communicati, Japan; [3]RIKEN Center for Advanced Photonics, RIKEN, Japan

11:45 **Organics-based Phase Modulator For Terahertz Detection Up To 1.25 THz** **Tu-A2-1a-3**

Ileana Cristina Benea Chelmus[1]; Tianqi Zhu[1]; Francesca Fabiana Settembrini[1]; Christopher Bonzon[1]; Elena Mavrona[1]; Delwin Elder[2]; Wolfgang Heni[3]; Juerg Leuthold[3]; Larry Dalton[2]; Jérôme Faist[4]
[1]Quantum Optoelectronics Group, Switzerland; [2]Department of Chemistry, University of Washington, Seattle, United States; [3]Institute of Electromagnetic Fields (IEF), ETH Zurich, Switzerland; [4]Quantum Optoelectronics Group, ETHZ, Switzerland

12:00 **Sensitivity Enhancement Of Photothermoelectric Terahertz Detectors With Series Combination Between Carbon Nanotubes And Metals** **Tu-A2-1a-4**

Kou Li; Daichi Suzuki; Yuki Ochiai; Yukio Kawano
Tokyo Institute of Technology, Japan

12:15 **Terahertz Receivers For Time-domain Spectroscopy Made Of Transition Metal Doped InGaAs: Up To 105 DB Dynamic Range** **Tu-A2-1a-5**

Robert Kohlhaas[1]; Björn Globisch[1]; Steffen Breuer[1]; Simon Nellen[1]; Lars Liebermeister[1]; Martin Schell[1]; Philipp Richter[2]; Martin Koch[2]; Mykhaylo Semtsiv[3]; William Ted Masselink[3]
[1]Fraunhofer Heinrich-Hertz-Institute, Germany; [2]Philipps-Universität Marburg, Germany; [3]Humboldt Universität Berlin, Germany

11:00 - 12:30	**Tu-A2-R2 Applications in Biology and Medicine III** **Chair: Andrea Markelz**	**Reception Hall**
11:00	**[Keynote] THz-TDS Measurements Of Hydration State Of Bio Related Materials And Data Analysis By Machine Learning** Hitoshi Tabata The University of Tokyo, Japan	**Tu-A2-R2-1**
11:30	**Investigation Of Water-free Biotissue Phantoms In Terahertz Frequency Range** Tianmiao Zhang[1]; Mikhail Khodzitsky[1]; Petr Demchenko[1]; Aleksander Bykov[2]; Alexey Popov[2]; Igor Meglinski[2] [1]ITMO University, Russian Federation; [2]University of Oulu, Finland	**Tu-A2-R2-2**
11:45	**Detection Of Human Tumor Markers With THz Metamaterials** Christian Weisenstein[1]; Dominik Schaar[2]; Merle Schmeck[1]; Anna Katharina Wigger[1]; Anja Katrin Bosserhoff[2]; Peter Haring Bolívar[1] [1]High Frequency and Quantum Electronics/University of Siegen, Germany; [2]Biochemistry and Molecular Medicine/Friedrich-Alexander-University Erlangen-Nürnberg, Germany	**Tu-A2-R2-3**
12:00	**Terahertz Microfluidic Metamaterial Biosensor For Tiny Volume Liquid Samples** Rui Zhang[1]; Qingming Chen[2]; Kai Liu[1]; Zefeng Chen[1]; Kaidi Li[1]; Jianbin Xu[1]; Emma Pickwell-MacPherson[1] [1]The Chinese University of Hong Kong, China; [2]The Hong Kong Polytechnic University, China	**Tu-A2-R2-4**
12:15	**Development Of PDMS Microchannel Integrated Type Terahertz Chip**	**Tu-A2-R2-5**

	Ryohei Taie[1]; Kazunori Serita[1]; Keiko Kitagishi[1]; Takayuki Kawai[2]; Iwao Kawayama[1]; Hironaru Murakami[1]; Masayoshi Tonouchi[1] [1]Institute of laser engineering, Japan; [2]RIKEN Center for Biosystems Dynamics Research, Japan	
11:00 - 12:30	**Tu-A2-4 Devices, Components, and Systems IV** **Chair: Ullrich Pfeiffer**	**Room 432**
11:00	**High-power Pulsed Terahertz Spectrometer** Ivan Tzibizov; Grigory Kropotov; Dmitry Tsypishka Tydex LLC, Russian Federation	**Tu-A2-4-1**
11:15	**Real-time Continuous Wave Terahertz Spectroscopy With 2 THz Bandwidth** Lars Liebermeister; Simon Nellen; Robert Kohlhaas; Martin Schell; Björn Globisch Fraunhofer Heinrich Hertz Institute, Germany	**Tu-A2-4-2**
11:30	**1.5 Port Vector Spectrometer For Terahertz Time Domain Spectroscopy** Fahd Rushd Faridi; Uttam Nandi; Sascha Preu Institut für Mikrowellentechnik und Photonik, Technische Universität Darmstadt, Germany	**Tu-A2-4-3**
11:45	**Pure Phase Terahertz Wave Front Modulator** Yan Zhang; Jingying Guo Department of Physics, Capital Normal University, China	**Tu-A2-4-4**
12:00	**[Keynote] High-speed Terahertz Waveform Measurement For Intense Terahertz Light Using 100-kHz Yb-doped Fiber Laser** Masaaki Tsubouchi; Keisuke Nagashima National Institutes for Quantum and Radiological Science and Technology, Japan	**Tu-A2-4-5**
14:00 - 16:00	**Tu-P1-R1 Spectroscopy and Material Properties V** **Chair: Jaime Gómez-Rivas**	**Shirotori Hall**
14:00	**[Keynote] Structure And Dynamics Of Bound Water In Polymer Film Studied By THz Spectroscopy** Hiromichi Hoshina[1]; Yoh Iwasaki[1]; Takuro Kanemura[1]; Eriko Kometani[2]; Makoto Okamoto[2]; Chiko Otaani[1] [1]RIKEN, Japan; [2]Kuraray Co., Ltd, Japan	**Tu-P1-R1-1**

14:30	**Active Bidirectional Control Hybrid Based On Organic Materials For Terahertz Waves** Wei Wang; Bo Zhang; Hongyu Ji; Jingling Shen Capital Normal University, China	**Tu-P1-R1-2**
14:45	**THz-TDS On Polymers: Monitoring Thermo-oxidative Ageing And Crystallization Kinetics** Sebastian Engelbrecht[1]; Kai-Henning Tybussek[2]; Bernd Michael Fischer[1]; Stefan Sommer[3] [1]French-German Research Institute of Saint Louis, France; [2]French-German Research Institute of Saint-Louis, France; [3]Philipps Universität Marburg, Germany	**Tu-P1-R1-3**
15:00	**Boson Peak And Fracton Of Sodium Carboxymethyl Starch Detected By Terahertz Time-Domain And Low-Frequency Raman Spectroscopies** Wakana Terao[1]; Tatsuya Mori[2]; Karolina Kaczmarska[3]; Beata Grabowska[4]; Yasuhiro Fujii[5]; Akitoshi Koreeda[5]; Jae-Hyeon Ko[6]; Seiji Kojima[1] [1]Graduate School of Pure and Applied Sciences University of Tsukuba, Japan; [2]Division of Materials Science, University of Tsukuba, Japan; [3]AGH - University of Science and Technology, Faculty of Foundry Engineering, Poland; [4]AGH - University of Science and Technology, Faculty of Foundry Engineering, Poland; [5]Department of Physical Sciences, Ritsumeikan University, Japan; [6]Department of Physics, Hallym University, Korea, Republic of	**Tu-P1-R1-4**
15:15	**Investigation Of Aggregation-induced emission Molecules With Terahertz Spectroscopy** Harunobu Takeda[1]; Yuji Oki[1]; Hiroaki Minamide[2] [1]Kyushu university, Japan; [2]RIKEN, Japan	**Tu-P1-R1-5**
15:30	**Experimental Characterization Of Artificial Human Skin With Melanomas For Accurate Modelling And Detection In Healthcare Application** Rui Zhang[1]; Qammer Abbasi[2]; Najah Abed AbuAli[3]; Akram Alomainy[1] [1]Queen Mary University of London, United Kingdom; [2]University of Glasgow, United Kingdom; [3]United Arab Emirates University, United Arab Emirates	**Tu-P1-R1-6**

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15:45	**Terahertz Conductivity In Proteins** Jens Neu; Sophia M. Yi; Yangqi Gu; Nikhil S. Malvankar; Charles A. Schmuttenmaer Yale University, United States	**Tu-P1-R1-7**

14:00 - 16:00	**Tu-P1-1b High-Field THz Wave Generation and Nonlinear THz Physics V** **Chair: Jerome Tignon**	**Room 131+132**
14:00	**[Keynote] Generating And Shaping Light In The THz Frequency Range** Karl Unterrainer; Christian Derntl; Sebastian Schoenhuber; Moritz Wenclawiak; Martin Kainz; Benedikt Limbacher; Juraj Darmo Technische Universität Wien, Austria	**Tu-P1-1b-1**
14:30	**Dressing Intersubband Transitions At Terahertz Frequencies** Johannes Schmidt; Stephan Winnerl; Emmanouil Dimakis; Manfred Helm; Harald Schneider Helmholtz-Zentrum Dresden-Rossendorf, Germany	**Tu-P1-1b-2**
14:45	**Nonlinear THz Plasmonics In Bi2Se3 Topological Insulator** Paola Di Pietro[1]; Nidhi Adhlakha[1]; Federica Piccirilli[2]; Alessandra Di Gaspare[3]; Seongshik Oh[4]; Andrea Perucchi[1]; Stefano Lupi[5] [1]Elettra Sincrotrone Trieste, Italy; [2]CNR-IOM Trieste, Italy; [3]NEST, Istituto Nanoscienze, CNR, Scuola Normale Superiore, Italy; [4]Department of Physics and Astronomy Rutgers, United States; [5]CNR-IOM Dip. di Fisica, Università di Roma Sapienza, Italy	**Tu-P1-1b-3**
15:00	**Subcycle Nonlinear Terahertz Optics In Doped Semiconductor Thin Film** Xin Chai[1]; Xavier Ropagnol[1]; S. Mohsen Raeis-Zadeh[2]; Matthew Reid[3]; Safieddin Safavi-Naeini[2]; Tsuneyuki Ozaki[1] [1]INRS-EMT, Canada; [2]University of Waterloo, Canada; [3]University of Northern British-Columbia, Canada	**Tu-P1-1b-4**
15:15	**Ultrafast Control Of Even-Order Harmonic Generation From Solids By An Intense Terahertz Field**	**Tu-P1-1b-5**

Haoyu Huang[1]; Liwei Song[1]; Nicolas Tancogne-Dejean[2]; Nicolai Klemke[1]; Angel Rubio[2]; Franz Kaertner[1]; Oliver Muecke[1]
[1]Center for Free-Electron Laser Science CFEL, Deutsches Elektronen-Synchrotron DESY, Germany; [2]Max Planck Institute for the Structure and Dynamics of Matter, Germany

15:30 **[Keynote] Giant Terahertz Nonlinearity Of Graphene** **Tu-P1-1b-6**

Dmitry Turchinovich
Fakultät für Physik, Universität Duisburg-Essen, Germany

14:00 - 16:00 **Tu-P1-1c Laser Driven THz Sources IV** **Room 133+134**

Chair: Kei Takeya

14:00 **Tilted Pulse-Front Phase-matching In Three Dimensions: Overcoming The Cherenkov Angle Restrictctions.** **Tu-P1-1c-1**

Steven Jamison[1]; David Walsh[2]; Edward Snedden[2]
[1]Lancaster University, United Kingdom; [2]STFC, United Kingdom

14:15 **Optical Rectification Of A 100W Average Power Ultrafast Thin-disk Oscillator** **Tu-P1-1c-2**

Frank Meyer; Negar Hekmat; Samira Mansourzadeh; Martin Hoffmann; Clara Saraceno
Ruhr-Universität Bochum, Germany

14:30 **[Keynote] Pulse Front Tilt Derived From A Digital Micromirror Device Andits THz Application** **Tu-P1-1c-3**

Kosuke Murate[1]; Mehraveh Javan Roshtkhari[2]; Xavier Ropagnol[2]; Francois Blanchard[2]
[1]Nagoya University, Canada; [2]Département de génie électrique, École de technologie supérieure (ETS), Université du Québec, Canada

15:00 **Thin-Disk Laser Oscillator Driving THz Generation Up To 6 THz** **Tu-P1-1c-4**

Clément Paradis[1]; Norbert Modsching[2]; Olga Razskazovskaya[2]; Jakub Drs[1]; Frank Meyer[3]; Christian Kränkel[4]; Clara J. Saraceno[3]; Valentin J. Wittwer[1]; Thomas Südmeyer[1]
[1]Université de Neuchâtel, Switzerland; [2]Université de Neuchatel, Switzerland; [3]Ruhr Universität Bochum, Germany; [4]Leibniz Institute for Crystal Growth, Germany

15:15 **[Keynote] Plasmonic Resonances Affecting Terahertz Generation In Laser-induced Gas-plasmas** **Tu-P1-1c-5**

Korbinian J. Kaltenecker[1]; Illian Thiele[2]; Binbin Zhou[3]; Alisee Nguyen[4]; Evgeniya Smetanina[5]; Rachel Nuter[6]; Pedro Gonzalez de Alaiza[6]; Jeremy Dechard[7]; Luc Berge[7]; Peter Uhd Jepsen[3]; Stefan Skupin[8]
[1]Technical University of Denmark, Denmark; [2]Univ. Bordeaux / Chalmers University, Sweden; [3]DTU, Denmark; [4]CEA/DAM Ile-de-France, France; [5]Univ. Bordeaux / Univerity Gothenborg, Sweden; [6]Univ. Bordeaux, France; [7]CEA/DAM, France; [8]Universite de Lyon, France

15:45 **A Mirrorless Terahertz-Wave Parametric Oscillator** **Tu-P1-1c-6**

Kouji Nawata; Yu Tokizane; Yuma Takida; Takashi Notake; Zhengli Han; Andreas Karsaklian.Dal.Bosco; Mio Koyama; Hiroaki Minamide
RIKEN, Japan

14:00 - 16:00 **Tu-P1-1a Sources, Detectors, and Receivers II** **Room 141+142**

Chair: Hiroshi Ito

14:00 **Tuneable Optical Frequency Comb Generator For THz Spectroscopy** **Tu-P1-1a-1**

Lalitha Ponnampalam; Martyn Fice; Haymen Shams; Cyril Renaud; Alwyn Seeds
University College London, United Kingdom

14:15 **Continuous Wave Terahertz Generation From Photodiode-based Emitters With Up To 200 µW Terahertz Power** **Tu-P1-1a-2**

Simon Nellen; Robert Kohlhaas; Lars Liebermeister; Steffen Breuer; Björn Globisch; Martin Schell
Fraunhofer HHI, Germany

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14:30	**Broadband Spectrum From A Photoconductive Emitter Spanning Up To 13 THz** Abhishek Singh; Alexej Pashkin; Stephan Winnerl; Manfred Helm; Harald Schneider Helmholtz Zentrum Dresden Rossendorf, Dresden, Germany, Germany	**Tu-P1-1a-3**
14:45	**High-Power Terahertz Generation From Telecommunication-Compatible, Bias-Free Photoconductive Nano-Antennas** Deniz Turan[1]; Nezih Tolga Yardimci[1]; Zixuan Rong[1]; Dingkun Ren[1]; Hyunseok Kim[1]; Diana Huffaker[2]; Mona Jarrahi[1] [1]University of California, Los Angeles, United States; [2]Cardiff University, United Kingdom	**Tu-P1-1a-4**
15:00	**Optimization Of Terahertz Emission Spectra Of Electrically Pumped 2DEG Plasmonic AlGaN/GaN Heterostructures** Ignas Grigelionis; Vytautas Jakstas; Vytautas Janonis; Irmantas Kasalynas Center for Physical Sciences and Technology, Lithuania	**Tu-P1-1a-5**
15:15	**Feedback Effects And Nonlinear Dynamics In Resonant Tunneling Diodes** Andreas Karsaklian Dal Bosco[1]; Safumi Suzuki[2]; Masahiro Asada[3]; Hiroaki Minamide[1] [1]RIKEN Center for Advanced Photonics, Japan; [2]Tokyo Institue of Technology, Japan; [3]Tokyo Institute of Technology, Japan	**Tu-P1-1a-6**
15:30	**[Keynote] The Route To Nanoscale Terahertz Technology: Nanowire-based Terahertz Detectors And Terahertz Modulators** Jessica Louise Boland[1]; Kun Peng[2]; Sarwat Baig[3]; Djamshid Damry[2]; Patrick Parkinson[4]; Lan Fu[5]; Hark Hoe Tan[5]; Chennupati Jagadish[5]; Laura Herz[2]; Hannah Joyce[3]; Michael Johnston[2] [1]University of Regensburg, Germany; [2]University of Oxford, United Kingdom; [3]University of Cambridge, United Kingdom; [4]University of Manchester, United Kingdom; [5]Australian National University, Australia	**Tu-P1-1a-7**

14:00 - 16:00	**Tu-P1-R2 Applications in Biology and Medicine IV** **Chair: Joo-Hiuk Son**	**Reception Hall**

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14:00	**Concentration Dependence Of IgG Immobilized On A Sensing Plate for Higher Sensitivity Of A Terahertz Chemical Microscope** Masahiro Iida; Tatsuki Kamiya; Sakai Kenji; Kiwa Toshihiko; Tsukada Kenji Okayama University, Japan	**Tu-P1-R2-1**
14:15	**THz Anisotropy Identification Using Tunable Compact Narrow Band THz Sources** Deepu George[1]; Andrea Markelz[2]; Ian McNee[3]; Patrick Tekavec[3]; Vladimir Kozlov[3]; Peter Schunemann[4] [1]University at Buffalo, United States; [2]SUNY Buffalo, United States; [3]Micro Tech, United States; [4]BAE Systems, United States	**Tu-P1-R2-2**
14:30	**Measurement Of Protein Conformational Fluctuation In Ice By Passive Millimeter-wave Microscopy** Akio Kishigami[1]; Tatsuo Nozokido[2] [1]Gifu Women's University, Japan; [2]University of Toyama, Japan	**Tu-P1-R2-3**
14:45	**[Keynote] Detection Of Ions In Solutions With Sub-micro Liter Volumes using A Terahertz Chemical Microscope** Yuki Maeno; Tatsuki Kamiya; Toshihiko Kiwa; Kenji Sakai; Keiji Tsukada Okayama University, Japan	**Tu-P1-R2-4**
15:15	**Study On The Membrane Electroporation Threshold With The Applied Terahertz Electric Field** Jingchao Tang; Hairong Yin; Jialu Ma; Wenfei Bo; Yang Yang; Jin Xu; Yubin Gong University of Electronic Science and Technology of China, China	**Tu-P1-R2-5**
15:30	**Characterization Of Water Content In Organ Tissues By Using THz Pulses** Seung Jae Oh[1]; Young-Bin Ji[2]; Yuna Choi[3]; Young-Min Huh[3]; Hyeyoung Son[3]; Jin-Suck Suh[3] [1]Medical Convergence Research Institute, Yonsei University, Korea, Republic of; [2]Gimhae Biomedical Center, Korea, Republic of; [3]Yonsei University, Korea, Republic of	**Tu-P1-R2-6**
15:45	**Propagation Dynamics Of The THz Radiation Through A Dehydrated Tissue By The Pulse Time Domain Holography Method**	**Tu-P1-R2-7**

Olga Smolyanskaya[1]; Evgeniy Odlyanitskiy[1]; Maksim Kulya[1]; Kirill Zaytsev[2]
[1]ITMO University, Russian Federation; [2]Bauman Moscow State Technical University, Prokhorov General Physics Institute of RAS, Russian Federation

14:00 - 16:00 **Tu-P1-4 Devices, Components, and Systems V** **Room 432**

Chair: Javier Mateos

14:00 **Design, Analysis And Implementation Of Quarter-Wave Absorber Structure For Uncooled Infrared Detectors With High Fill Factor** **Tu-P1-4-1**
RAMAZAN CETIN; OZAN ERTURK; TAYFUN AKIN
METU MEMS Research and Application Center, Turkey

14:15 **High Numerical Aperture Diffractive Optics For Imaging Applications At 0.6 THz Frequency** **Tu-P1-4-2**
Linas Minkevicius; Domas Jokubauskis; Vytautas Janonis; Simonas Indrisiunas; Gediminas Raciukaitis; Vincas Tamosiunas; Irmantas Kasalynas; Gintaras Valusis
Center for Physical Sciences and Technology, Lithuania

14:30 **Terahertz Artificial Dielectric Stepped-refractive-index Lens** **Tu-P1-4-3**
Arturo Hernandez-Serrano[1]; Rajind Mendis[2]; Kimberly Reichel[2]; Wei Zhang[2]; Enrique Castro-Camus[3]; Daniel Mittleman[2]
[1]Centro de Investigaciones en Optica, Mexico; [2]Brown University, School of Engineering, United States; [3]Centro de Investigaciones en optica, Mexico

14:45 **Resonant Dielectric Structure As A Lens For Super-resolution Imaging** **Tu-P1-4-4**
Alexander Chernyadiev; Anna Vozianova; Mikhail Khodzitsky
ITMO University, Russian Federation

15:00 **Paper-based Optical Components For The THz Region** **Tu-P1-4-5**
Rhiannon Lees; Polina Stefanova; Andreas Klein; Claudio Balocco; Andrew Gallant
Durham University, United Kingdom

15:15 **Chirality Plasmonic Lens Induced Terahertz Super-focusing** **Tu-P1-4-6**

ZHU YIMING[1]; XIAOFEI ZANG[2]; Yan Peng[2]; Lin Chen[2]
[1]UNIVERSITY OF SHANGHAI FOR SCIENCE AND TECNOLOGY, China; [2]University of Shanghai for Science and Technology, China

15:30 **[Keynote] Demonstration Of Computational THz Diffractive Optical Elements Enabled By A Modified Direct Binary Search Technique** **Tu-P1-4-7**

Sourangsu Banerji; Ashish Chanana; Hugo Condori-Quispe; Sara Arezoomandan; Ajay Nahata; Berardi Sensale-Rodriguez
University of Utah, United States

16:30 - 18:30 **Tu-P2-R1 Gyro-Oscillators and Amplifiers I** **Shirotori Hall**

Chair: John Jelonnek

16:30 **Progress On 1 MW Operation Of Japan Gyrotron For ITER EC System** **Tu-P2-R1-1**

Ryosuke Ikeda; Yasuhisa Oda; Ken Kajiwara; Takayuki Kobayashi; Taku Nakai; Masayuki Terakado; Koji Takahashi; Shinichi Moriyama; Keishi Sakamoto
National Institutes for Quantum and Radiological Science and Technology, Japan

16:45 **Developments Of Equipment For Sub-THz Collective Thomson Scattering In LHD** **Tu-P2-R1-2**

Teruo Saito[1]; Shunsuke Tanaka[1]; Ryuji Shinbayashi[1]; Takumi Hirobe[1]; Yuusuke Yamaguchi[1]; Masafumi Fukunari[1]; Yoshinori Tatematsu[1]; Kunizo Ohkubo[1]; Shin Kubo[2]; Takashi Shimozuma[2]; Kenji Tanaka[2]; Masaki Nishiura[3]
[1]University of Fukui, Japan; [2]National Institute for Fusion Science, Japan; [3]The University of Tokyo, Japan

17:00 **Terahertz-range High-order Cyclotron Harmonic Planar Gyrotrons With Transverse Energy Extraction** **Tu-P2-R1-3**

Naum Ginzburg[1]; Vladislav Zaslavsky[1]; Toshitaka Idehara[2]; Vladimir Manuilov[1]; Ilya Zheleznov[1]; Andrey Kuftin[1]; Andrey Malkin[1]; Irina Zotova[1]; Alexander Sergeev[1]; Mikhail Glyavin[1]
[1]Institute of Applied Physics, Russian Federation; [2]University of Fukui (FIR UF), Japan

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17:15	**Overview Of Recent Gyrotron R&D At KIT In View Of The EU DEMO** Konstantinos Avramidis[1]; Gaetano Aiello[1]; Philipp Thomas Bruecker[1]; Thomas Franke[2]; Gerd Gantenbein[1]; Marc George[1]; Giovanni Grossetti[1]; Stefan Illy[1]; Zisis Ioannidis[1]; Jianbo Jin[1]; Parth Kalaria[1]; Alexander Marek[1]; Ioannis Pagonakis[1]; Sebastian Ruess[1]; Tobias Ruess[1]; Tomasz Rzesnicki[1]; Theo Scherer[1]; Martin Schmid[1]; Dirk Strauss[1]; Manfred Thumm[1]; Minh Quang Tran[3]; Chuanren Wu[1]; Andy Zein[1]; John Jelonnek[1] [1]Karlsruhe Institute of Technology, Germany; [2]EUROfusion Consortium, Germany; [3]École Polytechnique Fédérale de Lausanne, Switzerland	**Tu-P2-R1-4**
17:30	**Development Of A Second Harmonic Multi-Frequency Gyrotron With Gaussian Beam Output** Yoshinori Tatematsu; Kyoya Takayama; Yuto Maeda; Tatsuya Ueyama; Taisei Ogura; Masafumi Fukunari; Yuusuke Yamaguchi; Teruo Saito University of Fukui, Japan	**Tu-P2-R1-5**
17:45	**Possibilities Of Mode Selection In Double-Beam Gyrotrons With Additional Absorbing Beam** Vladimir Manuilov[1]; Vladislav Zaslavsky[2]; Irina Zotova[2]; Ivan Osharin[2]; Andrey Savilov[2]; Toshitaka Idehara[3]; Andrey Fokin[2]; Mikhail Glyavin[2] [1]Insitute of Applied Physics RAS, Russian Federation; [2]Institute of Applied Physics RAS, Russian Federation; [3]FIR UF, Japan	**Tu-P2-R1-6**
18:00	**[Keynote] Terahertz Large-orbit High-harmonic Gyrotrons At IAP RAS Features** Andrei Savilov; Ilya Bandurkin; Vladimir Bratman; Yuriy Kalynov; Vladimir Manuilov; Ivan Osharin; Nikolay Zavolsky Institute of Applied Physics of Russian Academy of Sciences, Russian Federation	**Tu-P2-R1-7**

16:30 - 18:15	**Tu-P2-1b Metamaterial Structures and Applications I** **Chair: Hou-Tong Chen**	**Room 131+132**
16:30	**Active And Ultrafast Terahertz Metamaterials**	**Tu-P2-1b-1**

	Caihong Zhang; Biaobing Jin; Jingbo Wu; Jian Chen; Peiheng Wu Research Institute of Superconductor Electronics, Nanjing University, China	
16:45	**Detection Of EGFR Protein Using Terahertz Metamaterial Biosensor** Kai Liu; Rui Zhang; Xuequan Chen; Emma Pickwell-MacPherson The Chinese University of Hong Kong, Hong Kong	**Tu-P2-1b-2**
17:00	**Metallic Periodic Surface Lattice Enhanced High-Power MM-wave Sources** Amy MacLachlan; Huabi Yin; Liang Zhang; Craig Robertson; Kevin Ronald; Adrian Cross; Alan Phelps University of Strathclyde, United Kingdom	**Tu-P2-1b-3**
17:15	**Ultrasensitive THz Sensing With Corrugated Hyperbolic Metamaterials** Guangyuan Li; Yuanfu Lu; Wenquan Liu; Guohua Jiao; Jiancheng Lv Shenzhen Institues of Advanced Technology, Chinese Academy of Sciences, China	**Tu-P2-1b-4**
17:30	**Terahertz Thin-Film Sensing With Angle-Susceptable Metasurface** Nazar Nikolaev[1]; Sergei Kuznetsov[2]; Miguel Beruete[3] [1]Institute of Automation and Electrometry, Siberian Branch of the Russian Academy of Sciences, Russian Federation; [2]Novosibirsk State University, Russian Federation; [3]Universidad Pública de Navarra, Spain	**Tu-P2-1b-5**
17:45	**[Keynote] Critical Mode Softening In Ultra-strong Coupling Of Landau Level Transitions To THz Metamaterials Beyond The Hopfield Model** Janine Keller[1]; Giacomo Scalari[1]; Felice Appugliese[1]; Shima Rajabali[1]; Curdin Maissen[1]; Johannes Haase[2]; Christian A. Lehner[1]; Werner Wegscheider[1]; Michele Failla[3]; Maksym Myronov[3]; David R. Leadley[3]; James Lloyd-Hughes[3]; Pierre Nataf[1]; Jérôme Faist[1] [1]ETH Zürich, Switzerland; [2]Paul Scherrer Institute, Switzerland; [3]University of Warwick, United Kingdom	**Tu-P2-1b-6**

16:30 - 18:30	**Tu-P2-1c Imaging and Remote Sensing I** **Chair: Yan Zhang**	**Room 133+134**
16:30	**[Keynote] A Solid-State 0.56 THz Near-Field Array For µM-Scale Surface Imaging**	**Tu-P2-1c-1**

	Philipp Hillger[1]; Ritesh Jain[1]; Janusz Grzyb[1]; Laven Mavarani[1]; Thomas Bücher[1]; Gaetan Mac Grogan[2]; Patrick Mounaix[3]; Jean-Paul Guillet[3]; Ullrich Pfeiffer[1] [1]University of Wuppertal, Germany; [2]Institut Bergonié, France; [3]IMS CNRS 5218, France	
17:00	**Non-scanning Terahertz Near-field Imaging With Spatial Resolution Of ~λ/100** Liguo Zhu; Sichao Chen; Zeren Li China Academy of Engineering Physics, China	**Tu-P2-1c-2**
17:15	**Towards Polarization-resolved All-electronic THz-nanoscopy** Stephan Schäffer; Anna Katharina Wigger; Peter Haring Bolívar University of Siegen HQE, Germany	**Tu-P2-1c-3**
17:30	**Scanning THz Noise Microscopy Of Operating Nano-devices** Le Yang[1]; Ruijie Qian[1]; Qianchun Weng[2]; Xue Gong[1]; Pingping Chen[3]; Susumu Komiyama[2]; Wei Lu[3]; Zhenghua An[1] [1]Fudan University, China; [2]The University of Tokyo, Japan; [3]Shanghai Institute of Technical Physics, China	**Tu-P2-1c-4**
17:45	**Sub-wavelength Imaging In The Terahertz Domain Through Optical Rectification** Jean-Louis Coutaz; Federico Sanjuan; Gwenael Gaborit IMEP-LAHC, France	**Tu-P2-1c-5**
18:00	**[Keynote] Imaging On The Nanoscale With THz Time-Domain, Emission And Pump-Probe Microscopy** Pernille Klarskov[1]; Angela Pizzuto[2]; Daniel Mittleman[2] [1]Aarhus University, Denmark; [2]Brown University, United States	**Tu-P2-1c-6**

16:30 - 18:30	**Tu-P2-1a Sources, Detectors, and Receivers III** **Chair: Tyler L. Cocker**	**Room 141+142**
16:30	**A Tunable Optical Cavity For Enhancement Of Nb5N6 Microbolometer THz Detector Absorption** Xuecou Tu; lin kang; Peng Xiao; chengtao Jiang; shiming zhai; xinle guo; xiaoqing jia; jian chen; peiheng wu Nanjing University, China	**Tu-P2-1a-1**

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16:45	**Ultra-Broadband W-Band Balanced Schottky Diode Envelope Detector For High-Data Rate Communication Systems** Angel Blanco Granja[1]; Roland Reese[1]; Rolf Jakoby[1]; Andreas Penirschke[2] [1]Institute for Microwave Engineering and Photonics, Technische Universität Darmstadt, Germany; [2]Fachbereich Informationstechnik-Elektrotechnik-Mechatronik, Technische Hochschule Mittelhessen, Germany	**Tu-P2-1a-2**
17:00	**[Keynote] Fermi-Level Managed Barrier Diode: Room-Temperature Low-Noise Terahertz-Wave Detector** Hiroshi Ito[1]; Tadao Ishibashi[2] [1]Kitasato University, Japan; [2]NTT Electronics Techno Corporation, Japan	**Tu-P2-1a-3**
17:30	**New InGaAs THz Schottky Detectors With Nanowire Contact For Zero-bias Operation** Ahid S. Hajo; Oktay Yilmazoglu; Franko Küppers Technische Universität Darmstadt, Germany	**Tu-P2-1a-4**
17:45	**Semiconducting Y-Ba-Cu-O Uncooled Detectors: Feasibility Of THz Pyroelectric Sensing** Annick Dégardin[1]; Manjakavahoaka Razanoelina[2]; Xavier Galiano[3]; Yvan Méautte[1]; Masayoshi Tonouchi[2]; Alain Kreisler[3] [1]Sorbonne Universite, France; [2]Institute of Laser Engineering - Osaka University, Japan; [3]CentraleSupelec - GeePs, France	**Tu-P2-1a-5**
18:00	**[Keynote] An Ultra-Compact 520-600 GHz/1100-1200 GHz Receiver With <10 W Power Consumption For High-Spectral Resolution Spectroscopy From Small-Sat Pl** Jose V. Siles[1]; Jonathan Kawamura[1]; Darren Hayton[1]; Jonathan Hoh[2]; Christopher Groppi[2]; Imran Mehdi[1] [1]NASA Jet Propulsion Laboratory, United States; [2]Arizona State University, United States	**Tu-P2-1a-6**

16:30 - 18:30	**Tu-P2-R2 Astronomy, Planetary and Environmental Science** **Chairs: Tetsuo Hasegawa, Thijs de Graauw**	**Reception Hall**
16:30	**[Keynote] Submm Astronomy From Ground And Space: Evolution And Future Perspectives**	**Tu-P2-R2-1**

	Thijs de Graauw ESO/ASC-LPI, Chile	
17:00	**The 1200GHz Receiver Frontend Of The Submillimetre Wave Instrument Of ESA Jupiter Icy Moons Explorer** Alain Maestrini[1]; Lina Gatilova[1]; Jeanne Treuttel[1]; Yong Jin[2]; Antonella Cavana[2]; Diego Moro Melgar[1]; Thibaut Vacelet[1]; Alexandre Féret[1]; Sylvain Caroopen[1]; Grégory Gay[1]; Frédéric Dauplay[1]; Jean-Michel Krieg[1]; Bertrand Thomas[3]; Peter De Maagt[4]; Christophe Goldstein[5] [1]Observatoire de Paris, France; [2]C2N-Marcoussis, France; [3]Radiometer Physics GmbH., Germany; [4]ESTEC, Netherlands; [5]CNES, France	**Tu-P2-R2-2**
17:15	**The Bench Test Of A High Temporal Resolution HCN Interferometry ForAtmospheric Pressure Air Plasmas** jibo zhang; Haiqing Liu; Yinxian Jie ASIPP, China	**Tu-P2-R2-3**
17:30	**A Compact Integrated 675-693 GHz Polarimeter** Eric Bryerton Virginia Diodes, Inc., United States	**Tu-P2-R2-4**
17:45	**Axion Haloscopes: Moving From Microwaves To Mm-Waves** Samantha Lewis University of California, Berkeley, United States	**Tu-P2-R2-5**
18:00	**[Keynote] Atacama Large Millimeter/submillimeter Array (ALMA): Scientific Achievements And Developments For Future** Tetsuo Hasegawa National Astronomical Observatory of Japan, Japan	**Tu-P2-R2-6**

16:30 - 18:15	**Tu-P2-4 Devices, Components, and Systems VI** **Chair: Wojciech Knap**	**Room 432**
16:30	**THz Pump-probe Setup For Experiments In High Magnetic Fields** Bence Bernáth[1]; Dmytro Kamenskyi[1]; Britta Redlich[2]; Lex van der Meer[2]; Peter Christianen[1]; Hans Engelkamp[1]; Jan Kees Maan[1] [1]High Field Magnet Laboratory, Netherlands; [2]FELIX Laboratory, Netherlands	**Tu-P2-4-1**

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16:45	**Experimental Demonstration Of 20dB Nonreciprocity Around 1.5THz On A InSb Magnetoplasmonic Grating Mirror At 77K** Oleksandr Stepanenko[1]; Tomas Horak[1]; Romain Peretti[1]; Sergey Mitryukovskiy[1]; Jan Chochol[2]; Kamil Postava[2]; Jean-François Lampin[1]; Mathias Vanwolleghem[1] [1]CNRS IEMN, France; [2]Nanotechnology Centre, VSB Ostrava, Czech Republic	**Tu-P2-4-2**
17:00	**Subwavelength Fiber: Enhanced THz Magnetic Source** Shaghik Atakaramians[1]; Ilya Shadrivov[2]; Andrey Miroshnichenko[3]; Alessio Stefani[4]; Heike Ebendorff-Heidepriem[5]; Tanya Monro[6]; Shahraam Afshar[6] [1]UNSW Sydney, Australia; [2]Australian National University, Australia; [3]UNSW Canberra, Australia; [4]The University of Sydney, Australia; [5]The University of Adelaide, Australia; [6]University of South Australia, Australia	**Tu-P2-4-3**
17:15	**Ultra-Precise Processing And Maker Fringe Measurements Of Organic N-Benzyl-2-Methyl-4-Nitroaniline Crystal** Takashi Notake; Masahiro Takeda; Takuya Hosobata; Yutaka Yamagata; Hiroaki Minamide RIKEN, Japan	**Tu-P2-4-4**
17:30	**Influence Of Two-photon Absorption Anisotropy On Terahertz Generation In <111> Zinc Blende Crystals** jean-louis COUTAZ; Federico Sanjuan; Gwenaël Gaborit IMEP-LAHC, France	**Tu-P2-4-5**
17:45	**[Keynote] Synchronized Plasma Wave Resonances In Ultrathin-membrane GaN Heterostructures** Hugo Condori[1]; Ashish Chanana[1]; Jimy Encomendero[2]; Mingda Zhu[2]; Nicole Trometer[3]; Ajay Nahata[3]; Debdeep Jena[2]; Huili Grace Xing[2]; Berardi Sensale-Rodriguez[1] [1]UNIVERSITY OF UTAH, United States; [2]Cornell University, United States; [3]University of Florida, United States	**Tu-P2-4-6**

18:30 - 20:00	**Tu-POS Poster Session**	**Event Hall**

18:30	**Paraffin Embedded Cancer Tissue 2D Terahertz Imaging And Machine Learning Analysis** Yury Kistenev[1]; Alexey Borisov[1]; Anastasya Knyazkova[1]; Eleonora Ilyasova[1]; Ekaterina Sandykova[2]; Ludmila Spirina[3]; Alexey Gorbunov[3] [1]Tomsk State University, Russian Federation; [2]Siberian State Medical University, Russian Federation; [3]Tomsk National Research Medical Center of the RAS, Russian Federation	**Tu-POS-01**
18:30	**Simulations Of The Penetration Of 60-300 GHz Radiation Into The Human Ear** Zoltan Vilagosh; Alireza Lajevardipour; Andrew Wood Swinburne University of Technology, Australia	**Tu-POS-02**
18:30	**Nano-scale Infrared Imaging Of β-sheet Structures In Synaptic Junctions Of Primary Neuraons Isolated From Transgenic Mice.** Anders Engdahl[1]; Oxana Klementieva[2]; Katarina Willen[3]; Gunnar Gouras[2]; Per Uvdal[4]; Raul Freitas[5]; Jeremie Mathurin[6] [1]MAX IV laboratory, Lund University, Sweden; [2]Experimental Dementia Research Unit, Department of Experimental Medical Science, Lund University, Sweden; [3]1Experimental Dementia Research Unit, Department of Experimental Medical Science, Lund University, Sweden; [4]Chemical Physics, Chemical CenterLund University, Sweden; [5]4Brazilian Synchrotron Light Laboratory, CNPEM, Campinas, Brasil, Brazil; [6]Université Paris-Sud Laboratoire de Chimie Physique d'Orsay, France	**Tu-POS-03**
18:30	**Terahertz Spectroscopic Identification Of Ligusticum Chuanxiong Hort And Ligusticum Chuanxiong Hort. Cv. Fuxiong** Jun Zhou[1]; Junhong Tian[1]; Lin Zhou[1]; Xiaoxiao Zheng[2]; Guihua Jiang[2]; Yuying Ma[2] [1]University of Electronic Science and Technology of China, China; [2]Chengdu University of Traditional Chinese Medicine, China	**Tu-POS-04**
18:30	**Device For Light-matter Interaction Enhancement In The Full THz Range For Precise Spectroscopy Of Small Volume Samples**	**Tu-POS-05**

	Romain Peretti[1]; Sergey Mitryukovskiy[2]; Flavie Braud[2]; Emilien Peytavit[3]; Emmanuel Dubois[2]; Jean-Francois Lampin[2] [1]IEMN, CNRS, Univ. Lille, France; [2]CNRS IEMN, France; [3]IEMN CNRS, France	
18:30	**Towards Pathogenic Fungal Detection Using THz Metamaterial Biosensors** Anna Katharina Wigger[1]; Deborah Amazu[1]; Andreas Neuberger[1]; Nadja Regner[2]; Nico Vieweg[2]; Patrick Leisching[2]; Peter Haring Bolívar[1] [1]High Frequency and Quantum Electronics, University of Siegen, Germany; [2]TOPTICA Photonics AG, Germany	**Tu-POS-06**
18:30	**Theoretical Modeling Of THz Heating Effects On The Cornea** Wenquan Liu; Yuanfu Lu; Guangyuan Li; Guohua Jiao; Rongbin She; Jiancheng Lv Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences, China	**Tu-POS-07**
18:30	**Complex Permittivity Calculation Of Tiny Biological Materials Using Cavity Perturbation Method At Millimeter Wave Frequency** Jialu Ma; Jingchao Tang; Wenfei Bo; Yang Yang; Jin Xu; Baoqing Zeng; Yubin Gong Vacuum Electronics National Laboratory,University of Electronic Science and Technology of China, China	**Tu-POS-08**
18:30	**Modelling Neuronal Activity Alterations Caused By MMW-THz Mediated Melting Of Lipid Membrane** Sergii Romanenko[1]; Peter H Siegel[2]; Livia Hool[1]; Alan R Harvey[1]; Vincent Wallace[1] [1]The University of Western Australia, Australia; [2]California Institute of Technology, United States	**Tu-POS-09**
18:30	**Spectroscopic Measurement Of Birefringent Materials By Simultaneous Acquisition Of Two-polarization State THz Pulse Responses** Yoichi Kawada[1]; Katsumasa Yoshioka[2]; Yusuke Arashida[2]; Ikufumi Katayama[2]; Jun Takeda[2]; Hironori Takahashi[1] [1]Hamamatsu Photonics K.K., Japan; [2]Yokohama National University, Japan	**Tu-POS-10**
18:30	**Sub-mm Wave Transmission And Reflection Response In Low Dose Radiation Damaged Silicon**	**Tu-POS-11**

Biswadev Roy[1]; Branko Pivac[2]; Branislav Vlahovic[1]; Marvin Wu[1]
[1]North Carolina Central University, United States; [2]Ruder Boskovic Institute, Croatia

18:30 **THz Dynamics Of Hydrated Phospholipid Studied By Broadband Dielectric Spectroscopy** **Tu-POS-12**

Yu Kadomura[1]; Naoki Yamamoto[1]; Keisuke Tominaga[2]
[1]Graduate School of Science, Kobe University, Japan; [2]Molecular Photoscience Research Center, Kobe University, Japan

18:30 **Phase Transitions In SnSe Probed By Far Infrared Spectroscopy** **Tu-POS-13**

Ulrich Schade[1]; Ljiljana Puskar[2]; Matthias Berg[2]; Eglof Ritter[3]; Ilias Efthimiopoulos[4]; Augusto Marcelli[5]; Michele Ortolani[6]; Yong Liu[7]; Li-Dong Zhao[8]; Wei Xu[9]
[1]HZB/BESSY II, Germany; [2]Helmholtz-Zentrum Berlin für Materialien und Energie, Germany; [3]Humboldt-Universität zu Berlin, Experimentelle Biophysik, Germany; [4]Deutsches GeoForschungsZentrum Potsdam, Germany; [5]INFN, Laboratori Nazionali di Frascati, and RICMASS, Rome International Center for Materials Science, Italy; [6]Universita di Roma La Sapienza, Dipartimento di Fisica, Italy; [7]AECC-Beijing Institute of Aeronautical Materials, China; [8]School of Materials Science and Engineering, Beihang University, China; [9]Institute of High Energy Physics, Chinese Academy of Sciences, China

18:30 **Terahertz Optical Transmission Of Charged Ge/Si Quantum Dots** **Tu-POS-14**

Dmitry Firsov[1]; Roman Balagula[1]; Anton Sofronov[1]; Leonid Vorobjev[1]; Alexander Tonkikh[2]; David Hayrapetyan[3]; Hayk Sarkisyan[3]; Eduard Kazaryan[3]
[1]Peter the Great Saint Petersburg Polytechnic University, Russian Federation; [2]OSRAM Opto Semiconductors GmbH, Regensburg, 93055 Germany, Germany; [3]Russian-Armenian University, Yerevan, 0051 Armenia, Armenia

18:30 **Giant Thermal Effect Of Vibration Modes Of Single-Crystalline Alanine** **Tu-POS-15**

Zenjiro Mita; Hiroshi Watanabe; Shin-ichi Kimura
Osaka University, Japan

18:30 **Optical Parameter Extraction Of Plastic Materials Based On THz-TDS** **Tu-POS-16**

Dandan Zhang[1]; Jiaojiao Ren[1]; Lijuan Li[1]; Qingmao Zhang[2]; Yiming Zhang[2]; Ping Huang[2]
[1]Changchun University of Science and Technology, China; [2]Chengdu Aircraft Design & Research Institute, China

18:30 **Temperature And Substrate Dependent Conductivities Of CVD Graphene Measured By Terahertz Time-Domain Spectroscopy** **Tu-POS-17**

Iwao Kawayama[1]; Shohei Ohashi[1]; Shohei Kameo[1]; Filchito Bagsican[1]; Manjakavahoaka Razanoelina[1]; Hironaru Murakami[1]; Junichiro Kono[2]; Robert Vajtai[2]; Pulickel Ajayan[2]; Masayoshi Tonouchi[1]
[1]Osaka University, Japan; [2]Rice University, United States

18:30 **Spectroscopy Of Temperature-driven Single Valley Dirac Fermions In HgTe/CdHgTe Quantum Wells** **Tu-POS-18**

Aleksandr Kadykov[1]; Sergey Krishtopenko[2]; Benoit Jouault[2]; Wilfried Desrat[2]; Michal Marcinkiewicz[2]; Sandra Ruffenach[2]; Christophe Consejo[2]; Jeremie Torres[3]; Sergey Morozov[1]; Vladimir Gavrilenko[1]; Nikolay Mikhailov[4]; Sergey Dvoretckii[4]; Wojciech Knap[2]; Frederic Teppe[2]
[1]Institute for Physics of Microstructures RAS, Russian Federation; [2]Laboratoire Charles Coulomb UMR 5221 CNRS-UM, France; [3]Institut d'Electronique et des Systemes, UMR 5214 CNRS, France; [4]A.V.Rzhanov Institute of Semiconductor Physics, Siberian Branch of RAS, Russian Federation

18:30 **Ferromagnetic Resonance In Hexagonal Ferrite BaFe12O19 At The EHF Frequency Range** **Tu-POS-19**

Alexander Badin; Grigorii Kuleshov; Kirill Dorozhkin; Grigorii Dunaevskii; Valentin Suslyaev; Victor Zhuravlev; Kirill Bilinskii
National Research Tomsk state University, Russian Federation

18:30 **Understanding The Formation Of Midgap States In GaAs(001)--β2(2x4) With Surface Defects Based On Density Functional Theory** **Tu-POS-20**

Dhonny Bacuyag[1]; Mary Clare Escaño[2]; Melanie David[1]; Masahiko Tani[3]
[1]Physics Department, De La Salle University, Philippines; [2]Department of Applied Physics, University of Fukui, Japan; [3]Research Center for Development of Far-Infrared Region, University of Fukui, Japan

18:30 **Quantitative Impurity Measurement In Organic Crystals By Precise Measurement Of THz Absorption Frequencies** **Tu-POS-21**

Tetsuo Sasaki[1]; Tomoaki Sakamoto[2]; Makoto Otsuka[3]
[1]Shizuoka University, Japan; [2]National Institute of Health Sciences, Japan; [3]Musashino University, Japan

18:30 **Terahertz Time-Domain Spectroscopy And Low-Frequency Raman Scattering Of Boson Peak Dynamics Of Lithium Borate Glasses** **Tu-POS-22**

Yuta Iijima[1]; Tatsuya Mori[1]; Yasuhiro Fujii[2]; Akitoshi Koreeda[2]; Suguru Kitani[3]; Hitoshi Kawaji[3]; Jae-Hyeon Ko[4]; Seiji Kojima[1]
[1]Division of Materials Science, University of Tsukuba, Japan; [2]Department of Physical Sciences, Ritsumeikan University, Japan; [3]Materials and Structures Laboratory, Tokyo Institute of Technology, Japan; [4]Department of Physics, Hallym University, Korea, Republic of

18:30 **Intrinsic Losses In Dielectrics Investigated By Terahertz Spectroscopy** **Tu-POS-23**

Liviu Nedelcu[1]; Cezar Dragos Geambasu[1]; Marian Gabriel Banciu[1]; George Mogîldea[2]; Marian Mogîldea[2]
[1]National Institute of Materials Physics, Romania; [2]Istitute of Space Science, Romania

18:30 **Boson Peak Detection Of Colored Craft Glass By Terahertz Time-Domain Spectroscopy** **Tu-POS-24**

Wataru Yajima[1]; Tatsuya Mori[1]; Yuta Iijima[1]; Yeonkyung Jeong[1]; Seiji Nijima[2]; Yasuhiro Fujii[3]; Akitoshi Koreeda[3]; Seiji Kojima[1]
[1]University of Tsukuba, Japan; [2]Mie Prefecture Industrial Research Institute, Japan; [3]Ritsumeikan University, Japan

18:30	**Generation Of Terahertz Vortex Waves In Resonant-Tunneling-Diode Oscillators By Integrated Radial Line Slot Antenna** Yunchao Chen; Safumi Suzuki; Masahiro Asada Tokyo Institute of Technology, Japan	**Tu-POS-25**
18:30	**A Multi-Carrier Signals Generation Based On DPMZM In Parallel For THz Communication System** Wei Jiang[1]; Shanghong Zhao[2]; Qinggui Tan[1]; XiaoJun Li[1]; Dong Liang[1]; Wenrui Zhang[3] [1]National Key Laboratory of Science and Technology on Space Microwave, China; [2]Air Force Engineering University, China; [3]School of Physics and Optoelectronic Engineering, Xidian University, China	**Tu-POS-26**
18:30	**THz Generation Of DSTMS-DASC Mixed Crystals** Koichiro Akiyama; Yoichi Kawada; Takashi Yasuda; Atsushi Nakanishi; Hiroshi Satozono; Hironori Takahashi Hamamatsu Photonics K.K., Japan	**Tu-POS-27**
18:30	**Periodic Terahertz-Wave Generation Using A Photoconductive Antenna Array In A Rectangular Metal Waveguide** Motoki Bssho; Ryosuke Ito; Jongsuck Bae Department of Physical Science and Engineering, Nagoya Institute of Technology, Japan	**Tu-POS-28**
18:30	**High-Power MM-Wave Sources Based On Schottky Diodes** Oleg Cojocari; Diego Moro-Melgar; Ion Oprea; Matthias Hoefle; Martin Rickes ACST GmbH, Germany	**Tu-POS-29**
18:30	**Coherent, Focused, And Threshold-less Cherenkov Radiation From Two-dimensional Sub-wavelength Hole Arrays** Yucheng Liu; Weihao Liu; Linbo Liang; Qika Jia; Lin Wang; Yalin Lu National Synchrotron Radiation Laboratory, China	**Tu-POS-30**
18:30	**On-Chip Terahertz Near-Field Generation/Detection Scheme**	**Tu-POS-31**

Dmitry S. Bulgarevich[1]; Yusuke Akamine[1]; Hideaki Kitahara[1]; Valynn Katrine Mag-usara[1]; Hiroyuki Kato[1]; Masahiro Kusano[2]; Dongfeng He[2]; Masahiko Tani[1]; Makoto Watanabe[2]
[1]Research Center for Development of Far-Infrared Region, University of Fukui (FIR-UF), Japan; [2]National Institute for Materials Science (NIMS), Japan

18:30 **Enhanced Terahertz Radiation From GaSb/InAs Heterostructures** **Tu-POS-32**
Shigehiko Sasa[1]; Masashi Tatsumi[1]; Yohei Kinoshita[1]; Masatoshi Koyama[1]; Toshihiko Maemoto[1]; Iwao Kawayama[2]; Masayoshi Tonouchi[2]
[1]Osaka Institute of Technology, Japan; [2]Osaka University, Japan

18:30 **Optimization Of OH1 Single-Crystalline Thin Film For Effective THz Source By Physical Vapor Deposition** **Tu-POS-33**
Peibin Wang[1]; Hirohisa Uchida[2]; Kei Takeya[3]; Kodo Kawase[3]
[1]Nagoya University, China; [2]ARKRAY Inc, Japan; [3]Nagoya University, Japan

18:30 **Intense THz Source Of Sub-cycle Pulses With Tunable Elliptical Polarization** **Tu-POS-34**
Xavier Ropagnol[1]; Xin Chai[1]; Mohsen Raeiszadeh[2]; Safiedin Safavi-Naeini[2]; matt reid[3]; Tsuneyuki Ozaki[1]
[1]INRS-EMT, Canada; [2]university of Waterloo, Canada; [3]UNBC, Canada

18:30 **Image Enhancement Algorithm Of Terahertz Images Based On Quantum Probability Statistics** **Tu-POS-35**
Zhongbo Zhu; XiaoJun Li; Qinggui Tan; Wei Jiang; Dong Liang
National Key Laboratory of Science and Technology on Space Microwave, China

18:30 **An Improved Post-Processing Method For Three-Dimensional Visualization In Terahertz Pulse-Echo Imaging** **Tu-POS-36**
Hiroshi Hanaizumi
Hosei University, Japan

18:30 **Total Internal Reflection THz Devices For High Speed Imaging** **Tu-POS-37**
Rayko Stantchev; Thierry Blue; Emma Pickwell-Macpherson
Chinese Univerisity of Hong Kong, Hong Kong

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18:30	**A Novel THz Azimuth Imaging Algorithm Based On MIMO Arc Array** Shiyou Wu; Chao Li; Guangyou Fang Institute of Electronics,Chinese Academy of Sciences, China	**Tu-POS-38**
18:30	**Terahertz Coded-Aperture Imaging Based On Clustered Sparsity Bayesian Learning** Shuo Chen; Chenggao Luo; Hongqiang Wang; Bin Deng; Yuliang Qin; Qi Yang National University of Defense Technology, China	**Tu-POS-39**
18:30	**A High Sensitivity Terahertz Imaging System Based On Compressed Sensing** Yilong Zhang; Wei Miao; Gao Hao; Jie Hu; Shengcai Shi Purple Mountain Observatory, Chinese Academy of Sciences, China	**Tu-POS-40**
18:30	**Parameter Estimation Of The Precessing Targets With A Wideband Terahertz Radar** Qi Yang; Bin Deng; Hongqiang Wang; Yuliang Qin; Chenggao Luo College of Electronic Science and Engineering, National University of Defense Technology, China	**Tu-POS-41**
18:30	**Passive Terahertz Light Field Imaging With Microbolometer-based Camera System** Nanfang Lyu; Cunlin Zhang Capital Normal University, China	**Tu-POS-42**
18:30	**Lightening Strategies For Large-Field 2D And 3D Terahertz Imaging** Jean Baptiste Perraud[1]; Maher Hamdi[2]; Olivier Redon[2]; Jérémy Lalanne-Dera[2]; Jean-Paul Guillet[1]; Jérôme Meilhan[3]; François Simoens[3]; Patrick Mounaix[1] [1]IMS - Université de Bordeaux, France; [2]CEATech Nouvelle Aquitaine, France; [3]CEA LETI, France	**Tu-POS-43**
18:30	**Application Of Cepstrum Filtering In THz Imaging Through Scattering Media** Omar Osman; Arjun Virk; Hassan Arbab Stony Brook University, United States	**Tu-POS-44**
18:30	**Study Of The Point Spread Function Of Multi-Circular Synthetic Aperture Imaging At Terahertz Frequencies** Yanwen Jiang; Hongqiang Wang; Bin Deng; Yuliang Qin; Chenggao Luo; Zhaowen Zhuang National University of Defense Technology, China	**Tu-POS-45**

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18:30	**Transmission-type Dual-band Terahertz-waves Coder** Shan Yin Guilin University of Electronic Technology, China	**Tu-POS-46**
18:30	**Characterize Epoxy-Silver Nanoparticles Composite In Microwave And Millimeter-wave Regime** SHIH-CHIEH SU National Tsing Hua University, Taiwan	**Tu-POS-47**
18:30	**Terahertz Multispectral Imaging By Thermo-conversion Using MIM Antenna** Arthur Salmon[1]; Patrick Bouchon[1]; Sylvain Rommeluère[1]; Pierre Fauché[2]; Jean-Pascal Caumes[2]; Riad Haidar[1] [1]ONERA, France; [2]Nethis, France	**Tu-POS-48**
18:30	**Linear To Circular Polarization Conversion Of Terahertzwave Using Metallic Helix Array** Kento Kinumura[1]; Shun Takagi[1]; Norihisa Hiromoto[1]; Kodo Kawase[2]; Saroj Tripathi[1] [1]Shizuoka University, Japan; [2]Nagoya University, Japan	**Tu-POS-49**
18:30	**THz Gas Detection Using Cellulose Nanoporous Foam Enhanced Meta Structure** Wei-Chih Wang[1]; Yen-Tse cheng[2] [1]University of Washington, United States; [2]National Tsinghua University, Taiwan	**Tu-POS-50**
18:30	**Efficient Waveguide Mode Conversions Based On Phase-Gradient Metasurfaces** Tie-Jun Huang; Jiang-Yu Liu; Li-Zheng Yin; Feng-Yuan Han; Pu-Kun Liu Peking University, China	**Tu-POS-51**
18:30	**Active Thermal Control Of 5 Nm Gap Terahertz Antennas** Hyeong Seok Yun; Jeeyoon Jeong; Dasom Kim; Dai-Sik Kim Seoul National University, Korea, Republic of	**Tu-POS-52**
18:30	**Terahertz Asymmetric Coplanar Waveguide Filter** Han Sun; Han Sun Terahertz Science Cooperative Innovation Center, China	**Tu-POS-53**
18:30	**An On-chip Integrated Structure For Terahertz Band Stop Filter/absorber Based On Reflection Wave Cancellation**	**Tu-POS-54**

	ting zhang[1]; Ziqiang Yang[1]; Yaxin Zhang[1]; Shixiong Liang[2]; Zongjun Shi[1] [1]University of Electronic Science and Technology of China, China; [2]Hebei Semiconductor Research Institute, China	
18:30	**THz Josephson Spectroscopy Of Mode Coupling In Split-ring Resonators** Alexander Snezhko[1]; Irina Gundareva[2]; Yuri Divin[2]; Valeriy Pavlovskiy[1]; Vadim Pokalyakin[1] [1]Kotelnikov Institute of Radio Engineering and Electronics of RAS, Russian Federation; [2]Peter Grünberg Institute, Forschungszentrum Jülich, Germany	**Tu-POS-55**
18:30	**Optically Controlled THz Metamaterial Modulators** Polina Stefanova; Andreas Klein; Rhiannon Lees; Andrew Gallant; Claudio Balocco Durham University, United Kingdom	**Tu-POS-56**
18:30	**Modulation Of Polarization Control In Ultrathin Terahertz Metasurfaces** Thomas A. Searles Howard University, United States	**Tu-POS-57**
18:30	**THz Spectroscopy Inside A Climate Chamber** Jan Ornik[1]; Stefan Sommer[1]; Eva-Maria Stübling[1]; Ralf Gente[1]; Jan C. Balzer[2]; Klaus Fey[3]; Thomas Pillich[3]; Martin Koch[1] [1]Faculty of Physics, Philipps-Universität Marburg, Germany; [2]Universität Duisburg-Essen, Germany; [3]biomedis Laborservice GmbH, Germany	**Tu-POS-58**
18:30	**Development Of Efficient Contact Grating Device For Terahertz Wave Generation** keisuke nagashima; Masaaki Tsubouchi; Yoshihiro Ochi; Maruyama Momoko National Institutes for Quantum and Radiological Science and Technology, Japan	**Tu-POS-59**
18:30	**3D-Printed Tunable THz Prism**	**Tu-POS-60**

Stefan F. Busch[1]; Enrique Castro-Camus[2]; Felipe Beltran-Mejia[3]; Jan C. Balzer[4]; Martin Koch[5]
[1]Philipps University of Marburg, Brazil; [2]Centro de Investigaciones en Optica A.C., Mexico; [3]National Institute of Telecommunications - Inatel, Brazil; [4]University of Duisburg-Essen, Germany; [5]Philipps University of Marburg, Germany

18:30 **Anti-reflection Characteristics Of Laser Drilling Subwavelength Tapered Structures At Terahertz Frequencies** **Tu-POS-61**

Naoki Horita; Xi Yu; Mahiro Takeuchi; Shingo Ono; Jongsuck Bae
Department of Physical Science and Engineering, Nagoya Institute of Technology, Japan

18:30 **Studying Of Thermal Influence For Improving Anti-Reflective Characteristics Of Moth-Eye Structures Fabricated By Femtosecond Laser Processing** **Tu-POS-62**

Xi Yu[1]; Naoki Horita[1]; Mahiro Takeuchi[1]; Sudo Masaaki[2]; Shingo Ono[1]; Jongsuck Bae[1]
[1]Nagoya Institute of Technology, Japan; [2]IMRA AMERICA, INC., Japan

18:30 **High-directivity Terahertz Silicon-lens TEM Horn Antenna** **Tu-POS-63**

Kevin Froberger; Guillaume Ducournau; Jean-François Lampin
Institute of Electronics, Microelectronics and Nanotechnology, France

18:30 **Continuous Wave Multimode Amplitude THz Spectroscopy** **Tu-POS-64**

Alexandra Gerling[1]; Sebastian Dülme[2]; Nils Schrinski[2]; Andreas Stöhr[2]; Martin R Hofmann[1]; Carsten Brenner[1]
[1]Ruhr Universität Bochum, Germany; [2]University of Duisburg-Essen, Germany

18:30 **CW THz System With 50 DB Dynamic Range At 1 THz Using A N-i-pn-i-p Superlattice Photomixer And An ErAs:InGaAs Photoconductor Operated At 1550nm** **Tu-POS-65**

Mario Méndez Aller[1]; Arthur C. Gossard[2]; Hong Lu[3]; Sascha Preu[1]
[1]TU Darmstadt, Germany; [2]Materials Dept., University of California, Santa Barbara, United States; [3]Nanjing University, China

18:30	**Resonant Cavity Enhanced InAlAs / InGaAs-MSM Photodetectors With 3 DB-cut-off Frequency Above 100 GHz** Maximilien Billet; Sara Bretin; Yann Desmet; Xavier Wallart; Christophe Coinon; Guillaume Ducournau; Jean-François Lampin; Emilien Peytavit IEMN CNRS/Lille University, France	**Tu-POS-66**
18:30	**Characterization Of Terahertz Wave Propagation Dependent On Metal-rod-array Structures** Borwen You[1]; Dejun Liu[1]; Ja-Yu Lu[2]; Toshiaki Hattori[1] [1]Department of Applied Physics, University of Tsukuba, Japan; [2]Department of Photonics, National Cheng Kung University, Taiwan	**Tu-POS-67**
18:30	**Ultra-low-cost THz Wave Plates Based On High-contrast Gratings** Andreas Klein; Jonathan Hammler; Claudio Balocco; Andrew Gallant Durham University, United Kingdom	**Tu-POS-68**
18:30	**Metal-graphene Based Dynamically Tunable Bands Stop Filter** Ren Bin Zhong[1]; Yan Liu[2]; Jiebiao Huang[2]; Yilin Lü[2]; Shenggang Liu[2] [1]Terahertz Research Center, School of Electronics Science and Engineer, University of Electronic Sci, China; [2]School of Electronic Scienc and Engineering University of Electronic Science and Technology of China, China	**Tu-POS-69**
18:30	**Laser-Ablated Antireflective Structures For Terahertz Radiation Focusing** Vincas Tamosiūnas; Simonas Indrisiūnas; Milda Tamosiūnaitė; Linas Minkevičius; Andrzej Urbanowicz; Gediminas Račiukaitis; Irmantas Kasalynas; Gintaras Valusis Center for Physical Sciences and Technology, Lithuania	**Tu-POS-70**
18:30	**Characterization Of A IR-Blocking, THz Low-Pass Black Polypropylene Filter For Improved THz Power Metrology** Andrea Mingardi[1]; W-D Zhang[2]; Elliott Brown[1] [1]Wright State University, United States; [2]TeraPico LLC, United States	**Tu-POS-71**
18:30	**High Power Microwave Effects On Critical Chips For Ka-band T/R Module Of Phased Array Radar**	**Tu-POS-72**

Guo Guo[1]; Xinjian Niu[1]; Yinghui Liu[2]; Hui Wang[2]; Changyong Guo[2]
[1]Terahertz Research Center, School of Electronics Science and Engineer, University of Electronic Sci, China; [2]School of Electronic Science and Engineering, University of Electronic Science and Technology of Chi, China

18:30 **Modeling Of THz Pump Induced Plasmonic Oscillations In Silicon Membranes** **Tu-POS-73**

Nan Wang[1]; Emilio Nanni[2]; Xiaozhe Shen[2]; Renkai Li[2]; Matthias Hoffmann[2]; Benjamin Kwasi Ofori-Okai[2]; Qiang Zheng[2]; Jie Yang[2]; Xijie Wang[2]
[1]Stanford University, United States; [2]SLAC, United States

18:30 **Dynamics Of The Gas Discharge Sustained By The Powerful Radiation Of Pulsed And CW Terahertz Gyrotrons** **Tu-POS-74**

Alexander Sidorov; Sergey Razin; Alexey Veselov; Alexander Vodopyanov; Alexey Luchinin; Andrey Fokin; Mikhail Morozkin; Alexander Tsvetkov; Mikhail Glyavin
Institute of Applied Physics, Russian Federation

18:30 **Parameters Of A CW Plasma Torch Of Atmospheric Pressure Sustained By Focused Sub-terahertz Gyrotron Radiation** **Tu-POS-75**

Alexander Sidorov; Alexander Vodopyanov; Sergey Razin; Igor Dubinov; Sergey Sintsov; Mikhail Proyavin; Mikhail Morozkin; Andrey Fokin; Mikhail Glyavin
Institute of Applied Physics, Russian Federation

18:30 **THz Radiation Modulated By Confinement Of Transient Current Based On Patterned CoFeB/Pt Heterostructures** **Tu-POS-76**

Shunnong Zhang[1]; Weihua Zhu[2]; Qin Li[1]; Zongzhi Zhang[2]; Ye Dai[1]; Xian Lin[1]; Jianquan Yao[3]; Guohong Ma[1]; Zuanming Jin[1]
[1]Shanghai University, China; [2]Fudan University, China; [3]Tianjin University, China

18:30 **Tunneling Rectification In Ring Shaped Nanogaps** **Tu-POS-77**

	Taehee Kang[1]; R. H. joon-Yeon Kim[1]; Geunchang Choi[1]; Jaiu Lee[1]; Hyunwoo Park[1]; Hyeongtag Jeon[2]; Dai-Sik Kim[1] [1]Seoul National university, Korea, Republic of; [2]Hanyang University, Korea, Republic of	
18:30	**Development Of Metamaterial Structures for THz Frequency Conversion Devices** Yusuke Akamine[1]; Dmitry Bulgarevich[1]; Koji Yamamoto[1]; Takashi Furuya[1]; Hideaki Kitahara[1]; Jessica Afalla[1]; Valynn Mag-usara[1]; Keisuke Takano[2]; Khoa Nhat Thanh Phan[3]; Kosaku Kato[3]; Makoto Nakajima[3]; Masahiko Tani[1]; Yusuke Akamine[1] [1]Reserch Center for Development of Far-Infrared Region, University of Fukui, Fukui, Japan, Japan; [2]Institute of Laser Engineering, Osaka University, Osaka, Japan and Center for Energy and Environment, Japan; [3]Institute of Laser Engineering, Osaka University, Osaka, Japan, Japan	**Tu-POS-78**
18:30	**Long Term Stabilization Of Phase-locking Of A THz-QCL** Yoshihisa Irimajiri National Institute of Information and Communications Technology, Japan	**Tu-POS-79**
18:30	**Imaging Using Terahertz Quantum Cascade Laser Sources Based On Difference Frequency Generation** Atsushi Nakanishi; Kazuue Fujita; Kazuki Horita; Hironori Takahashi Hamamatsu Photonics K. K., Japan	**Tu-POS-80**
18:30	**High-performance THz Quantum Cascade Lasers In Single-mode** Junqi Liu; Yuanyuan Li; Fengqi Liu; Jinchuan Zhang; Shenqiang Zhai; Ning Zhuo; Lijun Wang; Shuman Liu; Zhanguo Wang Institute of Semiconductors, Chinese Academy of Sciences, China	**Tu-POS-81**
18:30	**2.08 THz And 4.96 THz Room-temperature Quantum Cascade Lasers Based On Non-polar M-plane ZnMgO/ZnO**	**Tu-POS-82**

Vadim Sirkeli[1]; Oktay Yilmazoglu[2]; Franko Küppers[1]; Hans Hartnagel[1]
[1]Institute for Microwave Engineering and Photonics, Technische Universität Darmstadt, Germany; [2]Department of High Frequency Electronics, Technische Universität Darmstadt, Germany

18:30 **Transverse Mode Propagation In Folded Waveguides Of Quantum Cascade Lasers** **Tu-POS-83**
Emilia Pruszynska-Karbownik; Maciej Sakowicz
Institute of Electron Technology, Poland

18:30 **Phase Processing In Millimeter Wave Inverse Synthetic Aperture Radar Imaging Of Ship Targets** **Tu-POS-84**
Qi Yang; Bin Deng; Hongqiang Wang; Yuliang Qin
College of Electronic Science and Engineering, National University of Defense Technology, China

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08:45 - 09:00	**Announcements**	**Shirotori Hall**
09:00 - 10:30	**We-A1-S Plenary Session** **Chair: Fritz Keilmann**	**Shirotori Hall**
09:00	**Imaging Fluctuations In Matter On Nano-scales - Scanning Noise Microscope (SNoiM)-** Susumu Komiyama The University of Tokyo, Japan	**We-A1-S-1**
09:45	**Terahertz Microscopy Down To The Atomic Scale** Tyler Cocker Michigan State University, United States	**We-A1-S-2**
11:00 - 12:30	**We-A2-R1 Spectroscopy and Material Properties VI** **Chair: Hiroyuki Nojiri**	**Shirotori Hall**
11:00	**THz Transient Photoconductivity With Near-field Detection** Niels van Hoof[1]; Stan ter Huurne[1]; Jaime Gomez Rivas[2]; Alexei Halpin[1] [1]Dutch Institute For Fundamental Energy Research, Netherlands; [2]University of Technology Eindhoven, Netherlands	**We-A2-R1-1**
11:15	**Detection Of Boson Peak And Fractal Dynamics Of Protein By Terahertz Time-Domain Spectroscopy** Tatsuya Mori[1]; Yue Jiang[1]; Yasuhiro Fujii[2]; Suguru Kitani[3]; Akitoshi Koreeda[2]; Leona Motoji[1]; Wakana Terao[1]; Kentaro Shiraki[1]; Yohei Yamamoto[1]; Seiji Kojima[1] [1]University of Tsukuba, Japan; [2]Ritsumeikan University, Japan; [3]Tokyo Institute of Technology, Japan	**We-A2-R1-2**
11:30	**Synthetic THz Nanoholography For Imaging CVD Graphene** Daena Madhi Technical University of Denmark, Denmark	**We-A2-R1-3**

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11:45	**Preprocessing For Robust Estimation Of Material Parameters By Continuous Wave THz Spectroscopy** Benedikt Friederich; Kevin Kolpatzeck; Xuan Liu; Thorsten Schultze; Jan C. Balzer; Andreas Czylwik; Ingolf Willms University of Duisburg-Essen, Germany	**We-A2-R1-4**
12:00	**λ-Ti3O5 With Temperature And Laser Induced Phase Transition Characteristics For Active Tuning Of Terahertz Wave Transmission** Qiwu Shi College of Materials Science and Engineering/ Sichuan University, China	**We-A2-R1-5**
12:15	**Proton Tunneling Detected In Cesium Silicate Compound LDS-1** Hiroshi Matsui Tohoku University, Japan	**We-A2-R1-6**

11:00 - 12:30	**We-A2-1b Metamaterial Structures and Applications II** **Chair: Withawat Withayachumnankul**	**Room 131+132**
11:00	**[Keynote] Information Metamaterials And Metasurfaces - From Concepts To Systems** Tie Jun Cui Southeast University, China, China	**We-A2-1b-1**
11:30	**From Terahertz Surface Waves To Spoof Surface Plasmon Polaritons** Jiaguang Han Tianjin University, China	**We-A2-1b-2**
11:45	**Nanoscale Observation Of Real-Space Mid-Infrared Field Distribution In A Stamp-Type Plasmonic Structure** Ryoichi Yuasa; Takuya Okamoto; Akira Sasagawa; Yukio Kawano Tokyo Institute of Technology, Japan	**We-A2-1b-3**
12:00	**A High Transmission Terahertz-wave Quarter-wave Plate By Double-layer SRRs With Film Metamaterial** Zhengli Han[1]; Seigo Ohno[2]; Yu Tokizane[1]; Kouji Nawata[1]; Takashi Notake[1]; Yuma Takida[1]; Hiroaki Minamide[1] [1]Riken, Japan; [2]Tohoku University, Japan	**We-A2-1b-4**
12:15	**Broadband Terahertz Coding Metasurface Integrated With Bias Circuit**	**We-A2-1b-5**

Hongxin Zeng[1]; ziqiang yang[1]; Yaxin Zhang[2]; Feng Lan[2]
[1]Terahertz Science Cooperative Innovation Center, University of Electronic Science and Technology of, China; [2]University of Electronic Science and Technology of China, China

11:00 - 12:30	**We-A2-1c Imaging and Remote Sensing II** **Chair: Jian Chen**	**Room 133+134**
11:00	**Diffuse Beam With Electronic THz Source Array** Daniel Headland; Robin Zatta; Ullrich Pfeiffer University of Wuppertal, Germany	**We-A2-1c-1**
11:15	**A Gold Coated Plasmonic Sensor For Biomedical And Biochemical Analyte Detection** Md. Saiful Islam; Jakeya Sultana; Alex Dinovitser; Brian Wai. Him. Ng; Derek Abbott University of Adelaide, Australia	**We-A2-1c-2**
11:30	**Liquid Crystal Based Terahertz Spatial Light Modulator For Imaging Application** Anup Kumar Sahoo[1]; Chan-Shan Yang[2]; Chun-Ling Yen[1]; Yuan Chun Lu[1]; Hung Chun Lin[3]; Yi-Hsin Lin[3]; Osamu Wada[4]; Ci-Ling Pan[1] [1]National Tsing Hua University, Taiwan; [2]National Taiwan Normal University, Taiwan; [3]National Chiao Tung University, Taiwan; [4]Kobe University, Japan	**We-A2-1c-3**
11:45	**Image Reconstruction For Terahertz Holographywith SparseRandom Frequencies** Chao Li Institute of Electronics, Chinese Academy of Sciences, China	**We-A2-1c-4**
12:00	**Dual-Polarization Imaging With Real-Time Capability Using A Terahertz Noise Source For Food Inspection** Daisuke Takehara[1]; Masao Endo[2]; Tadao Ishibashi[3]; Makoto Shimizu[4]; Satomi Kusanagi[4]; Tatsuo Nozokido[5]; Jongsuck Bae[1] [1]Nagoya Institute of Technology, Japan; [2]the University of Tokyo, Japan; [3]NTT Electronics Techno Corporation, Japan; [4]NTT Electronics Corporation, Japan; [5]University of Toyama, Japan	**We-A2-1c-5**

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12:15	**A High-speed And Stable THz Spectroscopic Imaging System Using Multiwavelength Is-TPG** Kosuke Murate; Kazuki Maeda; Yunzhuo Guo; Kodo Kawase Nagoya University, Japan	**We-A2-1c-6**

11:00 - 12:30	**We-A2-1a Sources, Detectors, and Receivers IV** **Chair: Jean-François Lampin**	**Room 141+142**
11:00	**[Keynote] Metamaterial-enhanced Quantum Infrared Detectors** Yanko Todorov; Daniele Palaferri; Mathieu Jeannin; Alireza Mottaghizadeh; Djamal Gacemi; Angela Vasanelli; Carlo Sirtori Laboratoire Matériaux et Phénomènes Quantiques, France	**We-A2-1a-1**
11:30	**Broadband Terahertz Detection With An Antenna Coupled Zero-Bias Field-Effect Transistor** Stefan Regensburger[1]; Amlan k. Mukherjee[1]; Hong Lu[2]; Arthur C. Gossard[3]; Sascha Preu[1] [1]Terahertz Systemtechnik - TU Darmstadt, Germany; [2]University of Nanjing, China; [3]University of California, Santa Barbara, United States	**We-A2-1a-2**
11:45	**Far Infrared And THz Detectors: Principles Of Operation And Figures Of Merit** Marco Zerbini[1]; Adrea Doria[1]; Gian Piero Gallerano[1]; Emilio Giovenale[1]; Giuseppe Galatola-Teka[2] [1]ENEA Frascati, Italy; [2]Università di Padova, Italy	**We-A2-1a-3**
12:00	**Terahertz InP DHBT-based Detectors For Studies Of Water Status Of Sorghum Leaves** Dominique Coquillat[1]; Nina Dyakonova[1]; Christophe Consejo[1]; Yoann Meriguet[2]; Jérémie Torres[2]; Frédéric Teppe[1]; Virginie Nodjiadjim[3]; Konczykowska Agnieszka[3]; Muriel Riet[3]; Jean-Luc Verdeil[4]; Knap Wojciech[1] [1]Laboratoire Charles Coulomb, University of Montpellier, CNRS, France; [2]Institut d'Electronique et des Systèmes, University of Montpellier, CNRS, France; [3]III-V Lab, France; [4]CIRAD UMR AGAP, France	**We-A2-1a-4**

12:15	**Enhancing Heterodyne System Performances With Millimeter Wave Mixers With 36 GHz Instantaneous IF Bandwidth And 35 % Relative Detection Bandwidth** Jeanne Treuttel[1]; David Gonzalez-Ovejero[2]; Choonsup Lee[3]; Imran Mehdi[3] [1]LERMA Observatory of Paris, France; [2]Institut d'Électronique et de Télécommunications de Rennes, France; [3]Jet Propulsion Laboratory, United States	**We-A2-1a-5**

11:00 - 12:30	**We-A2-R2 Quantum Cascade Lasers I** **Chair: Giacomo Scalari**	**Reception Hall**
11:00	**[Keynote] Low-frequency Terahertz Generation Based On High-Power Quantum Cascade Lasers Emitting At λ~14 Mm** Kazuue Fujita; Akio Ito; Masahiro Hitaka; Tatsuo Dougakiuchi; Tadataka Edamura Central Research Laboratory, Hamamatsu Photonics K.K., Japan	**We-A2-R2-1**
11:30	**Real-Time Molecular Spectroscopy Through Self-Mixing In A Terahertz Quantum-Cascade Laser** Till Hagelschuer; Martin Wienold; Heiko Richter; Heinz-Wilhelm Hübers German Aerospace Center (DLR), Germany	**We-A2-R2-2**
11:45	**Towards Room Temperature Operation Of Terahertz Quantum Cascade Lasers: Carrier Leakage Engineering As A Novel Design Concept** Asaf Albo[1]; Yuri Flores[2] [1]Bar Ilan University, Israel; [2]MIT, United States	**We-A2-R2-3**
12:00	**Wavelength Tunability Of The Transistor-Injected Quantum Cascade Laser** Zhiyuan Lin[1]; Zhuoran Wang[1]; Guohui Yuan[1]; Jean-Pierre Leburton[2] [1]University of Electronic Science and Technology of China, China; [2]University of Illinois at Urbana Champaign, United States	**We-A2-R2-4**
12:15	**Active And Passive Frequency Comb Generation In Terahertz Quantum Cascade Lasers** Hua Li; Juncheng Cao Shanghai Institute of Microsystem and Information Technology, Chinese Academy of Sciences,, China	**We-A2-R2-5**

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11:00 - 12:30	**We-A2-4 Gyro-Oscillators and Amplifiers II** **Chair: Keishi Sakamoto**	**Room 432**
11:00	**[Keynote] Terahertz Gyrotrons With Unique Parameters** Mikhail Glyavin; Gregory Denisov Institute of Applied Physics RAS, Russian Federation	**We-A2-4-1**
11:30	**Demonstration Of A 593 GHz Gyrotron For DNP** Monica Blank CPI, United States	**We-A2-4-2**
11:45	**Two-beam Self-excited Frequency Gyro-multiplier** Andrei Savilov[1]; Ilya Bandurkin[1]; Mikhail Glyavin[1]; Ivan Osharin[1]; Toshitaka Idehara[2] [1]Institute of Applied Physics of Russian Academy of Sciences, Russian Federation; [2]University of Fukui, Research Center for Development of Far-Infrared Region, Japan	**We-A2-4-3**
12:00	**Development And First Operation Of The 170 GHz, 2 MW Longer-Pulse Coaxial-Cavity Modular Gyrotron Prototype At KIT** Tomasz Rzesnicki; Konstantinos Avramidis; Gerd Gantenbein; stefan Illy; Zisis Ioannidis; Jianbo Jin; Ioannis Pagonakis; Sebastian Ruess; Tobias Ruess; Martin Schmid; Manfred Thumm; Joerg Weggen; Andy Zein; John Jelonnek Karlsruhe Institute of Technology (KIT), Germany	**We-A2-4-4**
12:15	**ECRH At W7-X -- Concurrent Operation Of 10 Gyrotrons** Harald Braune; Kai Jakob Brunner; Heinrich Peter Laqua; Stefan Marsen; Dmitry Moseev; Frank Noke; Frank Purps; Niko Schneider; Tino Schulz; Torsten Stange; Peter Uhren; Fabian Wilde Max-Planck-Inst. f. Plasmaphysik Garching/Greifswald, Germany	**We-A2-4-5**
14:00 - 15:30	**We-P1-R1 Spectroscopy and Material Properties VII** **Chair: Lyuba Titova**	**Shirotori Hall**
14:00	**[Keynote] All-Electronic THz Nanoscopy** Fritz Keilmann Ludwig-Maximilians-Universität, Germany	**We-P1-R1-1**

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14:30	**An Effective Application Of THz Spectroscopy For Identifying Fabric Fibers And Their Quality Evaluation** Toru Kurabayashi; Shunsuke Masuyama; Shinichi Yodokawa Akita University, Japan	**We-P1-R1-2**
14:45	**Material Characterization With Frequency Domain THz Ellipsometry** Andreas Klein[1]; Polina Stefanova[1]; Andrew Gallant[2]; Claudio Balocco[1] [1]Durham University, United Kingdom; [2]Durh, United Kingdom	**We-P1-R1-3**
15:00	**The Atomic Dynamics Of Disordered Crystals Elucidated With Terahertz Time-Domain Spectroscopy And Ab Initio Simulations** Michael Ruggiero[1]; Johanna Kolbel[1]; Wei Zhang[2]; Daniel Mittleman[2]; J. Axel Zeitler[1] [1]University of Cambridge, United Kingdom; [2]Brown University, United States	**We-P1-R1-4**
15:15	**Photo-carrier Dynamics Of MBE-grown GaAs On Silicon Studied By Optical-pump Terahertz-probe** Jessica Afalla[1]; Karl Cedric Gonzales[2]; Joselito Muldera[1]; Elizabeth Ann Prieto[3]; Gerald Catindig[3]; John Daniel Vasquez[3]; Horace Husay[3]; Takeshi Moriyasu[4]; Hideaki Kitahara[1]; Dmitry Bulgarevich[1]; Valynn Mag-usara[1]; Takashi Furuya[1]; Armando Somintac[3]; Arnel Salvador[3]; Elmer Estacio[3]; Masahiko Tani[1] [1]Research Center for Development of Far-Infrared Region, University of Fukui, Japan; [2]University of the Philippines Diliman, Philippines; [3]National Institute of Physics, University of the Philippines Diliman, Philippines; [4]Deparment of Applied Physics, School of Engineering, University of Fukui, Japan	**We-P1-R1-5**

14:00 - 15:30	**We-P1-1b Metamaterial Structures and Applications III** **Chair: Jiaguang Han**	**Room 131+132**
14:00	**Sensitivity Enhancement For Asymmetric Split Ring Resonators In A Vertical Coupling Geometry** Tuan Anh Pham Tran; Peter Haring Bolívar Institute for High Frequency and Quantum Electronics, University of Siegen, Germany	**We-P1-1b-1**

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14:15	**Diffraction Enhanced Transparency In A Hybrid Gold-Graphene THz Metasurface** Stan ter Huurne[1]; Niels van Hoof[1]; René Vervuurt[2]; Ageeth Bol[2]; Alexei Halpin[1]; Jaime Gómez Rivas[2] [1]Dutch Institute for Fundamental Energy Research - DIFFER, Netherlands; [2]Eindhoven University of Technology, Netherlands	**We-P1-1b-2**
14:30	**Bi-layer Metamaterial Based Broadband Linear Polarization Converter Under Two Coherent Beam Illumination** Wei Tan[1]; Caihong Zhang[2]; Hua Li[2]; Dacheng Wang[1]; Zheng Feng[1]; Biaobing Jin[2] [1]Microsystem and Terahertz Research Center, CAEP, China; [2]Research Institute of Superconductor Electronics, Nanjing University, China	**We-P1-1b-3**
14:45	**Anisotropic Dielectric Metamaterials With Multipolar Mie Resonances For High Efficiency Terahertz Polarization Control** Da-Cheng Wang; Wei Tan; Song Sun; Zheng Feng Microsystem and Terahertz Research Center, China	**We-P1-1b-4**
15:00	**[Keynote] Broadband Terahertz Linear-to-Circular Polarization Conversion** Chun-Chieh Chang; Hou-Tong Chen Los Alamos National Laboratory, United States	**We-P1-1b-5**

14:00 - 15:30	**We-P1-1c Imaging and Remote Sensing III** **Chair: Toshihiko Kiwa**	**Room 133+134**
14:00	**A THz Imaging System Using Sparse Antenna Array For Security Screening** SHAOQING HU; Xiaodong Chen; Yasir Alfadhl Queen Mary University of London, United Kingdom	**We-P1-1c-1**
14:15	**CMOS Terahertz Imaging Pixel With A Wideband On-chip Antenna** Yuri Kanazawa[1]; Shota Hiramatsu[2]; Eiichi Sano[1]; Sayuri Yokoyama[1]; Prasoon Ambalathankandy[1]; Masayuki Ikebe[1] [1]Hokkaido University, Japan; [2]Sony, Japan	**We-P1-1c-2**
14:30	**0.35 THz Dynamic Aperture Far-field Imaging Using A Several 10k Pixel THz-SLM**	**We-P1-1c-3**

	Sven Augustin[1]; Peter Jung[2]; Sven Frohmann[3]; Tom Szollmann[2]; Heinz-Wilhelm Hübers[4] [1]Humboldt Universität zu Berlin, Germany; [2]Technische Universität Berlin, Germany; [3]German Aerospace Center, Germany; [4]Humboldt-Universität zu Berlin, Germany	
14:45	**Far-Infrared Remote-Sensing Enabled By Room-Temperature Thermopile Imagers** GIACOMO MARIANI; Matthew Kenyon; Sabah Bux; Zachary Small NASA JET PROPULSION LABORATORY, United States	**We-P1-1c-4**
15:00	**[Keynote] Detection Of Terahertz Time-domain Signals With KIDs** Jean-Louis Coutaz[1]; Federico Sanjuan[1]; Gizem Soylu[1]; Emilie Herault[1]; Jean-Francois Roux[1]; Alessandro Monfardini[2]; Florence Levy-Bertrand[2] [1]IMEP-LAHC, France; [2]Institut Neel, France	**We-P1-1c-5**

14:00 - 15:30	**We-P1-1a Sources, Detectors, and Receivers V** **Chair: Jan Stake**	**Room 141+142**
14:00	**Terahertz (THz) Direct Detectors Based On Superconducting HEBs With Thermal, Microwave And THz Biasing** Jian Chen Nanjing Univ., China	**We-P1-1a-1**
14:15	**Ultrabroadband Terahertz Detectors Based On CMOS Field-Effect Transistors With Integrated Antennas** Kęstutis Ikamas[1]; Dovilė Čibiraitė[2]; Maris Bauer[2]; Alvydas Lisauskas[1]; Viktor Krozer[2]; Hartmut Roskos[2] [1]Vilnius University, Lithuania; [2]Johann Wolfgang Goethe-Universität, Germany	**We-P1-1a-2**
14:30	**Terahertz Photon Counters For HBT Intensity Interferometry** Hiroshi Matsuo[1]; Hajime Ezawa[1]; Masahiro Ukibe[2]; Go Fujii[2]; Shigetomo Shiki[2] [1]National Astronomical Observatory of Japan, Japan; [2]National Institute of Advanced Industrial Science and Technology, Japan	**We-P1-1a-3**
14:45	**Investigating The Potential Of SiGe Diode In BiCMOS 55nm For Power Detection Or Datacom Applications At 300 GHz**	**We-P1-1a-4**

	Joao Carlos Azevedo Goncalves[1]; Issa Alaji[2]; Daniel Gloria[1]; Sylvie Lepilliet[2]; François Danneville[2]; Christophe Gaquière[2]; Guillaume Ducournau[2] [1]STMicroelectronics, France; [2]IEMN, France	
15:00	**[Keynote] THz Detection With Field-effect Transistors: The Role Of Plasma Waves And Of Thermoelectric Contributions** Hartmut Roskos[1]; Maris Bauer[1]; Kestutis Ikamas[2]; Florian Ludwig[1]; Alvydas Lisauskas[2] [1]Goethe-University Frankfurt, Germany; [2]Vilnius University, Lithuania	**We-P1-1a-5**

14:00 - 15:30	**We-P1-R2 Quantum Cascade Lasers II** **Chair: Kazuue Fujita**	**Reception Hall**
14:00	**Ultra-stable Heterodyne Detection In The Mid-IR** Djamal Gacemi; Yanko Todorov; Azzurra Bigioli; Daniele Palaferri; Carlo Sirtori MPQ Lab University Paris 7, France	**We-P1-R2-1**
14:15	**Continuous-wave Highly Efficient Low-divergence Terahertz Wire Lasers** Simone Biasco[1]; Katia Garrasi[1]; Fabrizio Castellano[1]; Lianhe Li[2]; Harvey Beere[3]; David Ritchie[3]; Edmund Linfield[2]; Giles Davies[2]; Miriam Vitiello[1] [1]NEST, CNR-Istituto Nanoscienze and Scuola Normale Superiore, Italy; [2]School of Electronic and Electrical Engineering, University of Leeds, United Kingdom; [3]Cavendish Laboratory, University of Cambridge, United Kingdom	**We-P1-R2-2**
14:30	**Epitaxial Growth Of InGaSb Layers On GaAs Substrates For Fabrication Of InGaSb-based THz-QCLs** Hiroaki Yasuda National Institute of Information and Communications Technology, Japan	**We-P1-R2-3**
14:45	**High-speed Pure Frequency Modulation And Pulse Optimization Based On A Quantum Cascade Laser By All-optical Modulation** Ze-Ren Li; Tao Chen; Liguo Zhu; Chen Peng Institute of Fluid Physics, China Academy of Engineering Physics, China	**We-P1-R2-4**
15:00	**[Keynote] Broadband On-chip THz Frequency Combs**	**We-P1-R2-5**

	Giacomo Scalari; Andres Forrer; Tudor Olariu; David Stark; Mattias Beck; Jerome Faist; Giacomo Giacomo Scalari ETH Zürich, Switzerland	
14:00 - 15:30	**We-P1-4 Gyro-Oscillators and Amplifiers III** **Chair: Yoshinori Tatematsu**	**Room 432**
14:00	**Theoretical Analysis Of Gyrotron Self-Injection Locking By Delayed Reflection** Maria Melnikova[1]; Alexandra Tyshkun[1]; Andrey Rozhnev[2]; Nikita Ryskin[2] [1]Saratov State University, Russian Federation; [2]Saratov Branch, Institute of Radio Engineering and Electronics RAS, Russian Federation	**We-P1-4-1**
14:15	**Pulse Test Of A W-band Second Harmonic Gyrotron Based On A 1.8 T Continuous Operation Solenoid** Dimin Sun; Tingting Zhuo; Guowu Ma; Linlin Hu Institute of Applied Electronics, China Academy of Engineering Physics, China	**We-P1-4-2**
14:30	**Study On Approach Of Ultra-wide Band Step Tuning Across Multiband In A Gyrotron** Guowu Ma; Linlin Hu; Dimin Sun; Tingting Zhuo; Yinhu Huang; Hongbin Chen; Fanbao Meng Institute of Applied Electronics, China Academy of Engineering Physics, China	**We-P1-4-3**
14:45	**Two-Stage Energy Recovery System For THz Band Double-Beam Gyrotron** Vladimir Manuilov[1]; Vladislav Zaslavsky[2]; Irina Zotova[2]; Toshitaka Idehara[3]; Mikhail Glyavin[2] [1]Insitute of Applied Physics RAS, Russian Federation; [2]Institute of Applied Physics RAS, Russian Federation; [3]FIR UF, Japan	**We-P1-4-4**
15:00	**High-power Ultra-wideband Operation Of The JINR-IAP FEM-amplifier** Nikolai Peskov[1]; Alim Kaminsky[2]; Sergey Sedykh[2]; Ilya Bandurkin[1]; Andrey Savilov[1]; Vladislav Zaslavsky[1] [1]Institute of Applied Physics RAS, Russian Federation; [2]Joint Institute for Nuclear Research, Russian Federation	**We-P1-4-5**

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15:15	**Generation Of Train Of Ultrashort Ka-band Pulses By Helical Gyro-TWTs With Nonlinear Cyclotron Resonance Absorber In The Feedback Loop** Naum Ginzburg; Grigory Denisov; Mikhail Vilkov; Alexander Sergeev; Sergey Samsonov; Irina Zotova Institute of Applied Physics, Russian Federation	**We-P1-4-6**

15:30 - 17:00	**We-POS Poster Session**	**Event Hall**
15:30	**Infrared Spectroscopic Tracing Of Hydration/dehydration Processes Of Dry Yeast Cells** Natsuki Matsuoka; Satoru Nakashima Osaka University, Japan	**We-POS-01**
15:30	**Developments To Enhance The Feasibility Of SMILES-2 Mission** Satoshi Ochiai[1]; Philippe Baron[2]; Yoshihisa Irimajiri[2]; Yoshinori Uzawa[2]; Toshiyuki Nishibori[3]; Yutaka Hasegawa[3]; Akinori Saito[4]; Masato Shiotani[4] [1]National Institute of Information and Communications Technology (NICT), Japan; [2]National Institute of Information and Communications Technology, Japan; [3]Japan Aerospace Exploration Agency, Japan; [4]Kyoto University, Japan	**We-POS-02**
15:30	**Enhanced Transmission Of THz Radiation Through Fe2+: ZnSe Crystals** Maria Zhukova[1]; Yaroslav Grachev[1]; Anton Tcypkin[1]; Sergey Putilin[1]; Vladimir Chegnov[2]; Olga Chegnova[2]; Victor Bespalov[1] [1]ITMO University, Russian Federation; [2]Research Institute of Materials Science and Technology, Russian Federation	**We-POS-04**
15:30	**Broadband Electron Paramagnetic Resonance Using A Tunable Continuous-Wave Terahertz Photomixer Source** Eiji Ohmichi; Tatsuya Fujimoto; Keisuke Minato; Hideyuki Takahashi; Hitoshi Ohta Kobe University, Japan	**We-POS-05**
15:30	**Terahertz Optical Characteristics Of Organometallic Lead-iodide (bromide) Perovskites And Cesium Lead Halide Nanocrystals**	**We-POS-06**

	Alexander Andrianov; Alexey Zakhar'in; Andrey Aleshin Ioffe Institute, Russian Federation	
15:30	**THz- And Mid IR Fourier Transform Spectroscopy On Physical Aged Polyethylene** Joerg Beckmann[1]; Ulrich Schade[2]; Matthias Jaunich[1]; Dietmar Wolff[1] [1]Federal Institute for Materials Reseach and Testing (BAM), Germany; [2]Helmholtz Zentrum Berlin für Materialien und Energie, Germany	**We-POS-07**
15:30	**PHASE-MATCHING FOR THz-WAVE GENERATION AND MIXING IN KTP CRYSTAL** ZHIMING HUANG[1]; JINGGUO HUANG[1]; YANQING GAO[1]; GAOFANG LI[1]; YURY ANDREEV[2]; Grygory Lanskii[2]; NAZAR NIKOLAEV[3]; ALEXANDR MAMRASHEV[3]; DMITRII EZHOV[4]; VALERII SVETLICHNY[4] [1]Shanghai Institute of Technical Physics CAS, China; [2]Institute of Monitoring of Climatic and Ecological Systems SB RAS, Russian Federation; [3]Institute of Automation & Electrometry SB RAS, Russian Federation; [4]Siberian Physical-Technical Institute of Tomsk State University, Russian Federation	**We-POS-08**
15:30	**Simple THz Faraday Spectroscopic System Using A Phase Shifter** Atsushi Nakane; Tomohide Morimoto; Masaya Nagai; Masaaki Ashida Osaka University, Japan	**We-POS-09**
15:30	**Temporal Frequency Distribution Of THz Pulses By Changing Pump Pulse Conditions** Junichi Hamazaki[1]; Norihiko Sekine[2]; Akifumi Kasamatsu[2]; Iwao Hosako[2] [1]National Institute of Information and Communications Technology, Japan; [2]NICT, Japan	**We-POS-10**
15:30	**Development Of Millimeter-Wave Fabry-Pérot Resonator For Simultaneous Electron-Spin And Nuclear-Magnetic Resonance Measurement At Low Temperatures**	**We-POS-11**

Yutaka Fujii[1]; Yuya Ishikawa[1]; Yuta Koizumi[1]; Tsunehiro Omija[1]; Kenta Ohya[1]; Shunsuke Miura[2]; Akira Fukuda[3]; Seitaro Mitsudo[1]; Hidetomo Yamamori[2]; Hikomitsu Kikuchi[2]
[1]Research Center for Development of Far-Infrared Region, University of Fukui, Japan; [2]Graduate School of Engineering, University of Fukui, Japan; [3]Department of Physics, Hyogo College of Medicine, Japan

15:30 **Measurement Of Coupling Properties Of Free Space Terahertz-wave To Surface Plasmon Resonator** **We-POS-12**

Yu Tokizane[1]; Jun-ichi Shikata[2]; Yuma Takida[1]; Hiroaki Minamide[1]
[1]RIKEN, Japan; [2]Nihon University, Japan

15:30 **Measurement Of The Dielectric Constant Of Optically Dense Materials By Polarization-sensitive Terahertz Ellipsometry** **We-POS-13**

Quan Guo; Dongwen Zhang; Yindong Huang; Jianmin Yuan
National University of Defense Technology, China

15:30 **High-Index, Low-Loss Nd3+:Oxyfluorosilicate Glasses For THz Applications** **We-POS-14**

Ramachari Doddoji[1]; Chan-Shan Yang[2]; Chun-Ling Yen[1]; Chao-Kai Wang[1]; Osamu Wada[3]; Ci-Ling Pan[1]
[1]Department of Physics, National Tsing Hua University, Hsinchu 30013, Taiwan, Taiwan; [2]Institute of Electro-optical Science and Technology, National Taiwan Normal University, Taipei 11677, Taiwan; [3]Office for Academic and Industrial Innovation (Oacis), Kobe University, Kobe 657-8501, Japan, Japan

15:30 **Enhanced Terahertz Emission Of GaAs Microstructures** **We-POS-15**

Inhee Maeng[1]; Gyu-Seok Lee[1]; Chul Kang[1]; Gun-Wu Ju[1]; Kwang Wook Park[2]; Seoung-Bum Son[3]; Yong-Tak Lee[1]; Chul-Sik Kee[1]
[1]Gwangju Institute of Science and Technology, Korea, Republic of; [2]Korea Advanced NanoFab Center, Korea, Republic of; [3]National Renewable Energy Laboratory, United States

15:30 **Development Of Millimeter-Wave Electron-Spin-Resonance Measurement Apparatus For Ultralow Temperatures And Its Application To Measurement Of CuPzN** **We-POS-16**

Yuya Ishikawa[1]; Yutaka Fujii[1]; Kenta Ohya[1]; Yuta Koizumi[1]; Shunsuke Miura[2]; Seitaro Mitsudo[1]; Akira Fukuda[3]; Takayuki Asano[2]; Takao Mizusaki[1]; Akira Matsubara[4]; Hikomitsu Kikuchi[2]; Hidetomo Yamamori[5]
[1]Research Center for Development of Far-Infrared Region, University of Fukui (FIR-UF), Japan; [2]Department of Applied Physics, University of Fukui, Japan; [3]Department of Physics, Hyogo College of Medicine, Japan; [4]Department of Physics, Graduate School of Science, Kyoto University, Japan; [5]Technical division, Graduate School of Engineering, University of Fukui, Japan

15:30 **Significant Electric Near-field Enhancement In Ringlike Structures** **We-POS-17**

Valerii Trukhin[1]; Miron Kagan[2]; Stanislav Paprotskiy[2]
[1]ITMO University, Ioffe Institute, Russian Federation; [2]Kotelnikov Institute of Radio Engineering and Electronics, Russian Federation

15:30 **Effect Of Operating Conditions On The Properties Of THz NbN Hot-Electron Bolometer** **We-POS-18**

Arkadiy Raytovich; N. Kaurova; V Seleznev; S Ryabchun; B.M Voronov; G.N Goltsman; Ivan Tretyakov
Moscow State University of Education, Russian Federation

15:30 **0.34-THz High-Temperature Superconducting Josephson-Junction Mixer With Superior Noise And Conversion Performance** **We-POS-19**

Xiang Gao[1]; Ting Zhang[2]; Jia Du[1]; Yingjie Guo[2]
[1]Commonwealth Scientific and Industrial Research Organisation (CSIRO), Australia; [2]University of Technology Sydney, Australia

15:30 **Characteristics Of VOx Microbolometer On Si3N4/SiO2 Membrane Fabricated By Deep-RIE And XeF2 Vapor Etching For THz-detectors** **We-POS-20**

Kohei Maeda[1]; Van Nhu Hai[1]; Kunio Nishioka[2]; Akihiro Matsutani[2]; Takashi Tachiki[1]; Takashi Uchida[1]
[1]National Defense Academy, Japan; [2]Tokyo Institute of Technology, Japan

15:30	**Antenna-Coupled Terahertz Microbolometers With Meander Structures: The Comparison Of Titanium And Platinum Thermistors** NORIHISA HIROMOTO[1]; AMIT BANERJEE[2]; DURGA ELAMARAN[1]; HIROAKI SATOH[1]; CATUR APRIONO[3]; DAI ITOH[1]; ERIK BRUENDERMANN[4]; EKO TJIPTO RAHARDJO[3]; HIROSHI INOKAWA[1] [1]Shizuoka University, Japan; [2]National University of Singapore, Singapore; [3]Universitas Indonesia, Indonesia; [4]Karlsruhe Institute of Technology, Germany	**We-POS-21**
15:30	**Cavity Mode Evaluation Of THz-wave Oscillators Using Superconducting Bi-2212 Intrinsic Josephson Junctions For High Power Generation** Takashi Tachiki; Takashi Uchida National Defense Academy, Japan	**We-POS-22**
15:30	**The Impact Of Flip-chip Process On Nb5N6 Microbolometer Arrays For Terahertz Detection** Xinle Guo; Chengtao Jiang; Peng Xiao; Shimin Zhai; Xuecou Tu; Xiaoqing Jia; Lin Kang; Jian Chen; Peiheng Wu Nanjing University, China	**We-POS-23**
15:30	**The Effect Of Metal Reflector On Responsivity Of Nb5N6 THz Detector** Peng Xiao; Xuecou Tu; chengtao Jiang; shiming zhai; xinle guo; xiaoqing jia; lin kang; jian chen; peiheng wu Nanjing University, China	**We-POS-24**
15:30	**Superconducting Nanowire Single-photon Detectors At A Wavelength Of 2000nm** ruiying xu; guanghao zhu; lin kang; Xuecou Tu; xiaoqing jia; labao zhang; Biaobing jin; jian chen; weiwei xu; peiheng wu Nanjing University, China	**We-POS-25**
15:30	**Development Of A Quick-response Microwave Bolometer For The Stray Radiation Measurement In LHD** Hiroe Igami National Institute for Fusion Science, Japan	**We-POS-26**
15:30	**Terahertz Antenna Characterized By High Temperature Superconducting YBCO Grain Boundary Josephson Junction** Haifeng Geng; Mei Yu; Tao Hua; Weiwei Xu; Peiheng Wu Nanjing University, China	**We-POS-27**

15:30	**The Design Of A Bowtie Antenna For 0.65 THz Detection** Chengtao Jiang; Xuecou Tu; Peng Xiao; Lin Kang; Qinle Guo; Xiaoqin Jia; Shinmin Zhai; Jian Chen; Peiheng Wu Nanjing University, China	**We-POS-28**
15:30	**Dual Band Kinetic Inductance Bolometers For Submillimeter-wave Imaging: Experimental And Theoretical Optical Response** Shahab Oddin Dabironezare[1]; Juha Hassel[2]; Erio Gandini[1]; Leif Grönberg[2]; Hannu Sipola[2]; Visa Vesterinen[2]; Nuria Llombart[1] [1]Delft University of Technology, Netherlands; [2]VTT Technical Research Center of Finland, Finland	**We-POS-29**
15:30	**Blind Restoration Method For Near-field Millimeter-wave SAIR** Jianfei Chen[1]; Jian Guo[1]; Sheng Zhang[1]; Xiaowei Zhu[2] [1]Nanjing University of Posts and Telecommunications, China; [2]Southeast University, China	**We-POS-30**
15:30	**Three-dimensional Millimeter Wave Imaging Of Borehole Wall Cracks** Qijia Guo; Tianying Chang; Hong-Liang Cui College of Instrumentation and Electrical Engineering, Jilin University, China	**We-POS-31**
15:30	**Optical Performance Of A Wideband 28nm CMOS Double Bow-Tie Slot Antenna For Imaging Applications** Sven van Berkel; Satoshi Malotaux; Daniele Cavallo; Marco Spirito; Andrea Neto; Nuria LLombart Delft University of Technology, Netherlands	**We-POS-32**
15:30	**Shadow Effect Analysis For Diffractive Axicon Like Element** Martyna Rachon; Karolina Liebert; Jaroslaw Suszek; Maciej Sypek; Agnieszka Siemion Faculty of Physics Warsaw University of Technology, Poland	**We-POS-33**
15:30	**On The Contribution Of Thermally Generated Surface Plasmon Polaritons To Heat Radiation Of Metal Objects**	**We-POS-34**

	Vasily Gerasimov[1]; Ildus Khasanov[2]; Alexey Nikitin[2]; Ta Thu Trang[2] [1]Budker Institute of nuclear physics SB RAS, Russian Federation; [2]Scientific and Technological Center for Unique Instrumentation of RAS, Russian Federation	
15:30	**Active THz Imaging Using MEMS Resonator-Based Bolometer And Quantum Cascade Laser** Isao Morohashi[1]; Ya Zhang[2]; Boqi Qiu[2]; Yoshihisa Irimajiri[1]; Norihiko Sekine[1]; Kazuhiko Hirakawa[2]; Iwao Hosako[1] [1]National Institute of Information and Communications Technology, Japan; [2]The University of Tokyo, Japan	**We-POS-35**
15:30	**Phase Self-Calibration For Millimeter Wave MIMO Imaging** Xianzhong Tian; Qijia Guo; Tianying Chang; Hong-Liang Cui College of Instrumentation & Electrical Engineering, Jilin University, China	**We-POS-36**
15:30	**Optimal 1D MIMO Array Topology For Millimeter-wave Short-range Imaging** Yan You[1]; Lingbo Qiao[1]; Ziran Zhao[2] [1]Nuctech Company Limited, China; [2]Department of Engineering Physics, Tsinghua University, China	**We-POS-37**
15:30	**THz Magnifying Near-field Image Structure Based On Monolayer Graphene** Shengyu Shan; Cunjun Ruan; Yufei Wang SCHOOL OF ELECTRONICS INFORMATION ENGINEERING, China	**We-POS-38**
15:30	**Sensitivity Of SOI Lateral Diodes For Bolometric Sensing** Dan Corcos[1]; Thomas Morf[2]; Ute Drechsler[2]; Danny Elad[1] [1]ON Semiconductor, Israel; [2]IBM Research - Zurich, Switzerland	**We-POS-39**
15:30	**Quantitative Characterization Of Some Bisphenol Environmental Hormones By Terahertz Spectroscopy And Machine Learning Methods** Pengju Du; Xingxing Lu; Pengfei Xie; Yiwen SUN Shenzhen University, China	**We-POS-40**
15:30	**Diffractive Focusing Structures For Broadband Application In THz Range**	**We-POS-41**

	Karolina Liebert; Jaroslaw Suszek; Martyna Rachon; Jaroslaw Bomba; Artur Sobczyk; Agnieszka Siemion; Maciej Sypek Warsaw University of Technology, Poland	
15:30	**The Analysis Of FSS For Dual-band Reflectarray Using Conformal Mapping Technique** Qianzhong Xue; Baokun Xi; Lan Bi; Yong Wang Institute Of Electronics Chinese Academy Of Sciences, China	**We-POS-42**
15:30	**An Improved Double-PI Model For Millimeter Wave CMOS On-ChipInductor** Jiayu Dong; Yunqiu Wu; Chenxi Zhao; Huihua Liu; Yiming Yu; Hongyan Tang; Kai Kang University of Electronic Science and Technology of China, China	**We-POS-43**
15:30	**Noise And Echo Simulation And Removal Of Terahertz Time-domain Spectroscopy** Hua Geng[1]; Wen LYU[1]; Yingxin Wang[1]; Xiaoping Zheng[2] [1]Tsinghua University, China; [2]T, China	**We-POS-44**
15:30	**The Optimization And Design Of Extended Interaction Oscillators** jian Cui; aidi Li; guangfei Lu NORTH CHINA UNIVERSITY OF TECHNOLOGY, China	**We-POS-45**
15:30	**Enhanced Terahertz Electromagnetically Induced Transparency Metamaterials Via Inconsistent Thickness Of The Resonators** Lan Wang[1]; Yaxin Zhang[1]; Shixiong Liang[2]; Zongjun Shi[1]; Ziqiang Yang[1] [1]University of Electronic Science and Technology of China, China; [2]Hebei Semiconductor Research Institute, China	**We-POS-46**
15:30	**THz Microcavity Made Of Wire Grid Structures Containing Electrical Split Ring Resonator Metamaterials** Dieu Thanh Nguyen Thi; Kyosuke Okabe; Shota Inoue; Fusao Shimokawa; Shunsuke Nakanishi; Noriaki Tsurumachi Kagawa university, Japan	**We-POS-47**
15:30	**Enhanced Terahertz Smith-Purcell Radiation By Combining Meta-film Arrays With Gratings** Weihao Liu; Yucheng Liu; Linbo Liang; Qika Jia; Lin Wang; Yalin Lu University of Science and Technology of China, China	**We-POS-48**

15:30	**Electron Beam-Induced Airy Beam-Like THz Radiation From Graded Metallic Grating** Tatsunosuke Matsui; Ryosuke Yoshida; Kazuki Omura Mie University, Japan	**We-POS-49**
15:30	**Active Tuning Of Effective Refractive Index Based On Double-Layered Closed-Ring Resonator Array Terahertz Metamaterials** Yuki Watanabe; Tatsunosuke Matsui Mie-University, Japan	**We-POS-50**
15:30	**Infrared Localized Surface Plasmon Resonances On Subwavelength Corrugated Metal Disks** Vladislava Bulgakova[1]; Alexey Lemzyakov[1]; Vasily Gerasimov[1]; Ilya Melekhin[2] [1]Budker Institute of Nuclear Physics SB RAS, Russian Federation; [2]Novosibirsk State University, Russian Federation	**We-POS-51**
15:30	**(Withdrawn)**	**We-POS-52**
15:30	**Inverse Smith-Purcell Effect In Photonic Crystals** Xiaoqiuyan Zhang; Min Hu; Sen Gong; Yueheng Cao; Pengfei Hu; Shenggang Liu; Zhenhua Wu University of Electronic Science and Technology of China, China	**We-POS-53**
15:30	**Negative Refractive Index Fishnet Enhancement By Wire Shift** Wei-Chih Wang; Antoine Wegrowski University of Washington, United States	**We-POS-54**
15:30	**Terahertz Prism Analogue Based On Meta-surface** Guangyou Fang; Chao Li Institute of Electronics, Chinese Academy of Sciences, China	**We-POS-55**
15:30	**Microfluidic Terahertz Dual-band Sensor With Hybrid Fano Meta-atoms For Stronginteraction Expansion** Luo Feng; Lan Feng Terahertz Research Center, School of Electronics Science and Engineer, University of Electronic Sci, China	**We-POS-56**
15:30	**Exciting Fano Resonance In Symmetric Terahertz Metamaterials For Thin-film Sensing Applications** Ibraheem Al-Naib Imam Abdulrahman Bin Faisal University, Saudi Arabia	**We-POS-57**

15:30	**The Rosette Petal Width Influence On Ellipticity Angle Of Chiral Metasurface For Sub-terahertz Frequency Range** Maxim Masyukov; Anna Vozianova; Alexander Grebenchukov; Mikhail Khodzitsky ITMO University, Russian Federation	**We-POS-58**
15:30	**High-power Long-pulsed Operation Of Nanosecond Switches For 260 GHz** Maxim Kulygin Institute of Applied Physics RAS, Russian Federation	**We-POS-59**
15:30	**Investigations On 0.2-THz Traveling-Wave Tubes With Staggered Grating Slow-Wave Structure** Nikita Ryskin[1]; Andrey Rozhnev[1]; Andrey Ploskih[2]; Anton Burtsev[3]; Igor Navrotsky[3]; Aleksei Danilushkin[3] [1]Saratov Branch, Institute of Radio Engineering and Electronics RAS, Russian Federation; [2]Saratov State University, Russian Federation; [3]RPE "Almaz", Russian Federation	**We-POS-60**
15:30	**Development Of Planar Slow-Wave Structures For Low-Voltage Millimeter-Band Vacuum Tubes** Nikita Ryskin[1]; Andrey Rozhnev[1]; Andrey Starodubov[2]; Alexey Serdobintsev[2]; Roman Torgashov[1]; Viktor Galushka[2]; Anton Pavlov[2] [1]Saratov Branch, Institute of Radio Engineering and Electronics RAS, Russian Federation; [2]Saratov State University, Russian Federation	**We-POS-61**
15:30	**Polyimide Splitters For Terahertz Surface Plasmons** Vasily Gerasimov[1]; Alexey Nikitin[1]; Alexey Lemzyakov[1]; Ivan Azarov[2]; Ilya Milekhin[2]; Boris Knyazev[1]; Evgeni Bezus[3]; Elena Kadomina[3]; Leonid Doskolovich[4] [1]Budker Institute of nuclear physics SB RAS, Russian Federation; [2]Rjanov Institute of Semiconductor Physics SB RAS, Russian Federation; [3]Image Processing Systems Institute of RAS, Russian Federation; [4]Samara National Research University, Russian Federation	**We-POS-62**
15:30	**(Withdrawn)**	**We-POS-63**
15:30	**Evolutionary Optimization Of THz Components**	**We-POS-64**

	Vanessa Fenlon; Rhiannon Lees; Polina Stefanova; Andreas Klein; Andrew Gallant; Claudio Balocco Durham University, United Kingdom	
15:30	**Pre-Launch Radiometric Calibration Systems For The MetOp-SG MWS Instrument** Fiachra Cahill[1]; Peter Huggard[2]; Manju Henry[2]; Roseanna Green[2]; Brian Ellison[2] [1]STFC RAL Space, United Kingdom; [2]STFC, United Kingdom	**We-POS-65**
15:30	**Broadband Output Windows For THz Gyro-TWAs** Craig Donaldson; Liang Zhang; Alan Phelps; Wenlong He University of Strathclyde, United Kingdom	**We-POS-66**
15:30	**SISMA: A Numerical Simulation Software For SIS Mixer Design** Wenlei Shan[1]; Wentao Wu[2]; Shengcai Shi[3] [1]National Astronomical Observatory of Japan, Japan; [2]Shanghai Institute of Microsystem and Information Technology, China; [3]Purple Mountain Observatory, China	**We-POS-67**
15:30	**Opportunities And Challenges For EIK's In DNP NMR Applications** Melanie Rosay[1]; Ivan Sergeyev[1]; Leo Tometich[1]; Christopher Hickey[1]; Albert Roitman[2]; Doug Yake[2]; Dave Berry[2] [1]Bruker BioSpin, United States; [2]Communications & Power Industries, Canada	**We-POS-68**
15:30	**Development Of A High-Power Gyrotron For Beamed Energy Propulsion Applications** Masafumi Fukunari[1]; Yasuhisa Oda[2]; Tsuyoshi Kariya[3]; Ryutaro Minami[3]; Yuusuke Yamaguchi[1]; Yoshinori Tatematsu[1]; Teruo Saito[1]; Keishi Sakamoto[2]; Tsuyoshi Imai[3]; Kimiya Komurasaki[4] [1]Research Center for Development of Far-Infrared Region, University of Fukui, Japan; [2]National Institutes for Quantum and Radiological Science and Technology, Japan; [3]Plasma Research Center, University of Tsukuba, Japan; [4]School of Engineering, The University of Tokyo, Japan	**We-POS-69**
15:30	**Theoretical And Experimental Studies Of Oversized Ka-band Surface-wave Oscillators Based On 2D Periodical Corrugated Structures**	**We-POS-70**

	Vladislav Zaslavsky; Naum Ginzburg; Evgeny Ilyakov; Igor Kulagin; Andrey Malkin; Nikolai Peskov; Alexander Sergeev IAP RAS, Russian Federation	
15:30	**Vector Method For High Power Microwave Phase Retrieval Using IR Images** Jianwei Liu; xinjian niu; yinghui liu; hui wang; guo guo; xu sun School of Electronic Science and Engineering, University of Electronic Science and Technology of Chi, China	**We-POS-71**
15:30	**Perspective Field Emitters For Electron-Beam Microwave Devices Of Short-Wave Millimeter And Submillimeter Range** Gennadii Sominskii; Vyacheslav Sezonov; Tatiana Tumareva; Evgenii Taradaev Peter the Great Saint Petersburg Polytechnic University, Russian Federation	**We-POS-72**
15:30	**Study Of Mode Competition In The Third Harmonic Gyrotron With Inclusion Of The Electron Velocity Spread And The Beam Width** Olgerts Dumbrajs Institute of Solid State Physics, University of Latvia, Latvia	**We-POS-73**
15:30	**Simulations Of Nonuniform Electron Beams In A Gyrotron Electron-Optical System** Oleg Louksha; Pavel Trofimov Peter the Great St. Petersburg Polytechnic University, Russian Federation	**We-POS-74**
15:30	**Observation Of Increased Number Of Frequency Steps In Multi-Frequency Oscillations With A Two-Cavity Gyrotron** Yuusuke Yamaguchi; Masafumi Fukunari; Taisei Ogura; Tatsuya Ueyama; Yuto Maeda; Kyoya Takayama; Yoshinori Tatematsu; Teruo Saito Research Center for Development of Far-Infrared Region, University of Fukui, Japan	**We-POS-75**
15:30	**Frequency-Stabilized Terahertz Gyrotron Backward-Wave Oscillator During Electronic Tuning Process** Shi Pan[1]; Chao-Hai Du[1]; Zi-Chao Gao[1]; Lu-Yao Bao[1]; Juan-Feng Zhu[1]; Claudio Paoloni[2]; Pu-Kun Liu[1] [1]Peking University, China; [2]Lancaster University, United Kingdom	**We-POS-76**
15:30	**Two-stage Energy Recovery System For DEMO Gyrotron**	**We-POS-77**

	Mikhail Glyavin[1]; Vladimir Manuilov[2]; Mikhail Morozkin[1] [1]Institute of Applied Physics RAS, Russian Federation; [2]Insitute of Applied Physics RAS, Lobachevsky State University, Russian Federation	
15:30	**Quasi-Optical Mode Converter For A 0.42 THz TE17,4 Gyrotron** Wei Wang; Ning Zhang; Tao Song; Chenghai Wang; Diwei Liu; Shenggang Liu University of Electronic Science and Technology of China, China	**We-POS-78**
15:30	**A Quasi-Optical Mode Converter For 220 GHz Confocal Gyro-TWTs** Xiaotong Guan; Wenjie Fu; Dun Lu; Tongbin Yang; Yang Yan University of Electronic Science and Technology of China, China	**We-POS-79**
15:30	**Enhanced THz Absorption Of Polar Molecule-formed Plasma** Yindong Huang[1]; Quan Guo[2]; Ziyi Zhang[1]; Biyi Yi[1]; Jing Zhao[2]; Jianmin Yuan[2]; Zengxiu Zhao[2] [1]National Institute of Defense Technology Innovation, China; [2]National University of Defense Technology, China	**We-POS-80**
15:30	**Ultrafast Magnon Dynamics In Antiferromagnetic Nickel Oxide Observed By Optical Pump-Probe And Terahertz Time-Domain Spectroscopies** Toshiro Kohmoto[1]; Takeshi Moriyasu[2] [1]Kobe University, Graduate School of Science, Japan; [2]University of Fukui, Japan	**We-POS-81**
15:30	**Double-pump-pulse Terahertz Emission Method As A Novel Tool To Investigate Ultrafast Processes In Semiconductors** Ieva Beleckaite; Lukas Burakauskas; Ramunas Adomavicius Center for Physical Sciences and Technology, Lithuania	**We-POS-82**
15:30	**Efficient Continuously Tunable Narrowband Spintronic THz Emission From Mn3-xGa Nanofilms**	**We-POS-83**

	Nilesh Awari[1]; S. Kovalev[1]; C. Fowley[1]; K. Rode[2]; Y-C Lau[2]; D. Betto[2]; N. Thiyagarajah[2]; B. Green[1]; O. Yildrim[1]; J. Lindner[1]; J. Fassbender[1]; M. Coey[3]; A. Deac[1]; M. Gensch[1] [1]Helmholtz Zentrum Dresden Rossendorf, Germany; [2]Trinity College, Dublin, Ireland; [3]Trinity college, Dublin, Ireland	
15:30	**High-order Sideband Generation Under Circularly Polarized Light Excitation In Monolayer Transition Metal Dichalcogenides** Kohei Nagai[1]; Naotaka Yoshikawa[1]; Koichiro Tanaka[2] [1]Department of Physics/Kyoto University, Japan; [2]Department of Physics/Kyoto University, Institute for Integrated Cell-Material Sciences (iCeMS)/Kyot, Japan	**We-POS-84**
18:45 - 20:45	**Banquet**	

Thursday, September 13, 2018

08:45 - 09:00	**Announcements**	**Shirotori Hall**
09:00 - 10:30	**Th-A1-S Plenary Session** **Chair: Martina Havenith-Newen**	**Shirotori Hall**
09:00	**Two Decades Of Terahertz Transient Photoconductivity Spectroscopy: Where Do We Stand And Where Are We Going?** Charles A. Schmuttenmaer Yale University, United States	**Th-A1-S-1**
09:45	**Toward Cancer Treatment Using Terahertz Radiation: Demethylation Of Cancer DNA** Joo-Hiuk Son; Hwayeong Cheon University of Seoul, Korea, Republic of	**Th-A1-S-2**
11:00 - 12:30	**Th-A2-R1 Spectroscopy of Gases, Liquids, and Solids I** **Chair: Charles A. Schmuttenmaer**	**Shirotori Hall**
11:00	**[Keynote] Studying Solvation By Non-linear THz Spectroscopy** Martina Havenith[1]; Claudius Hoberg[2]; Thorsten Ockelmann[2]; Fabio Novelli[2]; Patrick Balzerowski[2] [1]Ruhr University Bochum, Germany; [2]Ruhr Universität Bochum, Germany	**Th-A2-R1-1**
11:30	**Structure Analysis Of Disorder In A Molecular Crystal With Terahertz Spectroscopy And Solid-state Density Functional Theory** Feng Zhang[1]; Houng-Wei Wang[2]; Keisuke Tominaga[1]; Michitoshi Hayashi[2]; Tetsuo Sasaki[3] [1]Molecular Photoscience Research Center, Kobe University, Japan; [2]Center for Condensed Matter Sciences, National Taiwan University, Taiwan; [3]Research Institute of Electronics, Shizuoka University, Japan	**Th-A2-R1-2**
11:45	**Molecular Spectroscopy With A Terahertz Quantum-cascade Laser By Illumination-induced Frequency Tuning**	**Th-A2-R1-3**

	Tasmim Alam[1]; Martin Wienold[2]; Heinz-Wilhelm Huebers[2] [1]German Aerospace Center, Germany; [2]German Aerospace Center (DLR), Germany	
12:00	**DIfferential Frequency-domain Absorption Spectrometer In The TErahertz Region (DI-FASTER) For Fast Gas Sensing** Yuma Takida[1]; Toshiyuki Ikeo[2]; Kouji Nawata[1]; Yasuhiro Higashi[2]; Hiroaki Minamide[1] [1]RIKEN, Japan; [2]RICOH COMPANY, LTD., Japan	**Th-A2-R1-4**
12:15	**Coherent THz Light Source For High Precision Spectroscopic Measurement** Daisuke Fukuoka[1]; Kiyofumi Muro[1]; Kazufusa Noda[2] [1]Spectra Quest Lab, Inc., Japan; [2]Oshima Prototype Engineering Co., Japan	**Th-A2-R1-5**

11:00 - 12:30	**Th-A2-1b Metamaterial Structures and Applications IV** **Chair: Tie Jun Cui**	**Room 131+132**
11:00	**[Keynote] 3 GHz Electrically Controlled Terahertz Spatial Modulator Based On A Stagger-Netlike GaN HEMT Metasurface** Yuncheng Zhao[1]; Yaxin Zhang[1]; Shixiong Liang[2]; Zhihong Feng[2]; Ziqiang Yang[1] [1]School of Electronic Science and Engineering, University of Electronic Science and Technology of Chi, China; [2]National Key Laboratory of Application Specific Integrated Circuit, Hebei Semiconductor Research Ins, China	**Th-A2-1b-1**
11:30	**Terahertz Quadruple-Band Switching Polarization Converter Based On HEMT-Embedded Net-Grid Metasurface** Luyang Wang[1]; Feng Lan[1]; Hongxin Zeng[1]; Ziqiang Yang[1]; Pinaki Mazumder[2]; Feng Luo[1]; Abdur Rauf Khan[1]; Zongjun Shi[1] [1]School of Electronic Science and Engineering, University of Electronic Science and Technology of Chi, China; [2]Department of Electrical Engineering and Computer Science, University of Michigan, United States	**Th-A2-1b-2**
11:45	**"Reverse Fabrication" Technique To Develop Mechanically Tunable THz Metasurfaces Using A Flexible Polydimethylsiloxane Substrate**	**Th-A2-1b-3**

S.C. Ambhire[1]; S. Palkhivala[1]; A. Agrawal[1]; A. Gupta[1]; G. Rana[2]; R. Mehta[1]; Arkabrata Bhattacharya[1]; A. Venugopal[1]; S.S. Prabhu[1]; Arkabrata Bhattacharya[1]
[1]Tata Institute of Fundamental Research, India; [2]Indian Institute of Technology, Bombay, India

12:00 **Terahertz Artificial Material Based On Integrated Metal-rod-array For Phase Sensitive Fluid Detection** **Th-A2-1b-4**

Borwen You[1]; Ja-Yu Lu[2]
[1]University of Tsukuba, Japan; [2]Department of Photonics, National Cheng Kung University, Taiwan

12:15 **Narrowband Ultra-Thin Metasurface Absorbers For SubTHz Bandand Their Application In Spectrometric Pyroelectric Detectors** **Th-A2-1b-5**

Sergei Kuznetsov[1]; Andrey Arzhannikov[2]; Victor Fedorinin[1]
[1]Rzhanov Institute of Semiconductor Physics SB RAS, Russian Federation; [2]Budker Institute of Nuclear Physics SB RAS, Russian Federation

11:00 - 12:30 **Th-A2-1c Imaging and Remote Sensing IV** **Room 133+134**

Chair: Pernille Klarskov Pedersen

11:00 **[Keynote] Vectorial Properties Of A Terahertz Bessel Beam** **Th-A2-1c-1**

Xinke Wang[1]; Zhen Wu[2]; Yan Zhang[2]
[1]Capital Normal University, China; [2]Capital Normal Univeristy, China

11:30 **Characterization Of Vortex Beams Using Interference And Diffraction Techniques** **Th-A2-1c-2**

Natalya Osintseva[1]; Yulia Choporova[1]; Boris Knyazev[1]; Vladimir Pavelyev[2]; Boris Volodkin[2]
[1]Budker Institute of Nuclear Physics SB RAS, Russian Federation; [2]Samara National Research University, Russian Federation

11:45 **Holography As An ATR THz Imaging Technique** **Th-A2-1c-3**

Yulia Choporova[1]; Boris Knyazev[2]
[1]Budker institute of nuclear physics, Russian Federation; [2]Budker institute of nuclear physics SB RAS, Russian Federation

Thursday, September 13, 2018

12:00	**Object Feature Extraction With Focused Terahertz Plenoptic Imaging** Ritesh Jain; Frank Landskron; Janusz Grzyb; Ullrich Pfeiffer IHCT, University of Wuppertal, Germany	**Th-A2-1c-4**
12:15	**Shape From Focus Applied To Real-Time Terahertz Imaging** Jean-Baptiste Perraud[1]; Jean-Paul Guillet[1]; Maher Hamdi[2]; Olivier Redon[2]; Jérôme Meilhan[3]; François Simoens[3]; Patrick Mounaix[1] [1]IMS - Bordeaux University, France; [2]CEATech Nouvelle Aquitaine, France; [3]CEA LETI, France	**Th-A2-1c-5**

11:00 - 12:30	**Th-A2-1a Spectroscopy and Material Properties VIII** **Chair: Jean-Louis Coutaz**	**Room 141+142**
11:00	**[Keynote] Vacuum Bloch-Siegert Shift In Cyclotron Resonance** Motoaki Bamba[1]; Xinwei Li[2]; Junichiro Kono[2] [1]Osaka University & JST, Japan; [2]Rice University, United States	**Th-A2-1a-1**
11:30	**Effect Of Magnetic Field On Terahertz Photoconductivity In Hg1-xCdxTe-Based Structures** Alexandra Galeeva[1]; Alexey Artamkin[2]; Aleksei Kazakov[2]; Sergey Dvoretskii[3]; Nikolay Mikhailov[3]; Sergey Danilov[4]; Ludmila Ryabova[2]; Dmitry Khokhlov[2] [1]Moscow State University, Russian Federation; [2]M.V. Lomonosov Moscow State University, Russian Federation; [3]Rzhanov Institute of Semiconductor Physics, Russian Federation; [4]Regensburg University, Germany	**Th-A2-1a-2**
11:45	**Bi-relaxor Behavior And Fe2+ Fine Structure In Single Crystalline Ba0.3Pb0.7Fe12O19 M-type Hexaferrite**	**Th-A2-1a-3**

Liudmila Alyabyeva[1]; Victor Torgashev[2]; Elena Zhukova[1]; Denis Vinnik[3]; Svetlana Gudkova[3]; Anatoliy Prokhorov[4]; Tomislav Ivek[5]; Silvia Tomic[5]; Nikolina Novosel[5]; David Rivas Gongora[5]; Damir Staresinić[5]; Damir Dominko[5]; Zvonko Jagličić[6]; Martin Dressel[7]; Boris Gorshunov[1]
[1]Moscow Institute of Physics and Technology (State University), Russian Federation; [2]Southern Federal University, Russian Federation; [3]South Ural State University, Russian Federation; [4]A.M. Prokhorov General Physics Institute,, Russian Federation; [5]Institut za fiziku, Croatia; [6]University of Ljubljana, Slovenia; [7]1. Physikalisches Institut, Universität Stuttgart, Germany

12:00 **Electromagnon In The Y-type Hexaferrite $BaSrCoZnFe_{11}AlO_{22}$** **Th-A2-1a-4**

Filip Kadlec[1]; Jakub Vít[1]; Christelle Kadlec[1]; Fedir Borodavka[1]; Yi Sheng Chai[2]; Kun Zhai[2]; Young Sun[2]; Stanislav Kamba[1]
[1]Institute of Physics, Czech Academy of Sciences, Czech Republic; [2]Institute of Physics, Chinese Academy of Sciences, Beijing, China

12:15 **Structural And Mechanical Properties Of Metal-Organic Frameworks Probed With Terahertz Time-Domain Spectroscopy** **Th-A2-1a-5**

Michael Ruggiero[1]; Qi Li[2]; Wei Zhang[3]; Jefferson Maul[4]; Alessandro Erba[4]; Daniel Mittleman[3]; Axel Zeitler[2]
[1]University of Vermont, United States; [2]University of Cambridge, United Kingdom; [3]Brown University, United States; [4]University of Torino, Italy

11:00 - 12:30 **Th-A2-R2 2D Materials for MMW, THz, IR applications I** **Reception Hall**

Chair: Akira Satou

11:00 **[Keynote] Ultrafast Terahertz Modulator Based On Metamaterial-integrated WSe2 Thin-films** **Th-A2-R2-1**

Prashanth Gopalan; Ashish Chanana; Sriram Krishnamoorthy; Ajay Nahata; Michael Scarpulla; Berardi Sensale-Rodriguez
University of Utah, United States

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11:30	**THz Band Gap In Encapsulated Graphene Quantum Dots** Sylvain Massabeau; Elisa Riccardi; Michael Rosticher; Federico Valmora; Panhui Huang; Jérôme Tignon; Takis Kontos; Sukhdeep Dhillon; Robson Ferreira; Juliette Mangeney 1Laboratoire Pierre Aigrain, Ecole normale supérieure, France	**Th-A2-R2-2**
11:45	**Graphene Enhanced 2-D Nanoelectrode For Continuous Wave Terahertz Photomixers** Alaa Jumaah[1]; Shihab Al-Daffaie[1]; Oktay Yilmazoglu[2]; Franko Küppers[1] [1]Institute for Microwave Engineering and Photonics (IMP), TU Darmstadt, Germany; [2]Department of High Frequency Electronics (HFE), TU Darmstadt, Germany	**Th-A2-R2-3**
12:00	**HgTe/CdTe Quantum Well Heterostructures For Far And Mid IR Lasers** Sergey Morozov[1]; Vladimir Rumyantsev[2]; Vladimir Gavrilenko[2]; Aleksander Kadykov[2]; Mikhail Fadeev[2]; Frederic Teppe[3] [1]Institute for Physics of Microstructures RAS, Russian Federation; [2]IPM RAS, Russian Federation; [3]Laboratoire Charles Coulomb, UMR Centre National de la Recherche Scientifique, University of Montpel, France	**Th-A2-R2-4**
12:15	**Terahertz Light Amplification By Instability-Driven Stimulated Emission Of Graphene Plasmon Polaritons** Stephane Boubanga-Tombet[1]; Deepika Yadav[1]; Wojciech Knap[2]; Vyacheslav Popov[3]; Taiichi Otsuji[1] [1]Tohoku University, Japan; [2]Laboratory Charles Coulomb, University of Montpellier and CNRS, France; [3]Kotelnikov Institute of Radio Engineering and Electronics (Saratov Branch), RAS, Russian Federation	**Th-A2-R2-5**

11:00 - 12:30	**Th-A2-4 Gyro-Oscillators and Amplifiers IV** **Chair: Teruo Saito**	**Room 432**
11:00	**[Keynote] Recent Results In IAP/GYCOM Development Of Megawatt Gyrotrons** Grigory Denisov Institute of Applied /GYCOM Ltd, Russian Federation	**Th-A2-4-1**

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11:30	**Optimized Vertical Collector Sweeping For High Power CW Gyrotrons Using Advanced Current Waveforms** Stefan Illy[1]; Konstantinos Avramidis[2]; Lukas Jackowski[2]; Walid Kdous[2]; John Jelonnek[2] [1]Karlsruhe Institute of Technology (KIT), Germany; [2]Karlsruhe Institute of Technology, Germany	**Th-A2-4-2**
11:45	**Design And Experiment Of A 140 GHz 50kW Gyrotron** Linlin Hu; Guowu Ma; Dimin Sun; Tingting Zhuo; Hongbin Chen; Fanbao Meng Institute of Applied Electronics, China Academy of Engineering Physics, China	**Th-A2-4-3**
12:00	**Development Of A 330-GHz Mini-Gyrotron** Chao-Hai Du; Shi Pan; Lu-Yao Bao; Zi-Chao Gao; Juan-Feng Zhu; Pu-Kun Liu Peking University, China	**Th-A2-4-4**
12:15	**Experimental Study Of Terahertz Radiation Sources Based On A Planar Slow Wave Structure And A Pseudospark-sourced Sheet Electron Beam** Guoxiang Shu[1]; Liang Zhang[2]; Huabi Yin[2]; Junping Zhao[3]; Guo Liu[4]; Zhengfang Qian[1]; Alan D. R Phelps[2]; Adrian W. Cross[2]; W He[2] [1]Shenzhen University, China; [2]University of Strathclyde, United Kingdom; [3]Xi'an Jiaotong University, China; [4]University of Electronic Science and Technology of China, China	**Th-A2-4-5**

14:00 - 16:00	**Th-P1-R1 Spectroscopy of Gases, Liquids, and Solids II** **Chair: Keisuke Tominaga**	**Shirotori Hall**
14:00	**Terahertz Hydration Dynamics In Aqueous Polysaccharides**	**Th-P1-R1-1**

Abhishek Kumar Singh[1]; José Antonio Morales[2]; Nancy Abril Estrada Sierra[3]; Socorro Josefina Villanueva Rodriguebz[3]; Enrique Castro-Camus[4]
[1]Centro de Investigaciones en Optica, A.C., Mexico; [2]2Centro de Investigación y Asistencia en Tecnología y Diseño del Estado de Jalisco. A.C. Av. Normali, Mexico; [3]Centro de Investigación y Asistencia en Tecnología y Diseño del Estado de Jalisco. A.C. Av. Normalis, Mexico; [4]Centro de Investigaciones en Optica A.C., Loma del Bosque 115, Lomas del Campestre, Leon, Guanajuato, Mexico

14:15 **Trace Gas Measurement For Security Applications With Injection-seeded Terahertz-wave Parametric Generation** **Th-P1-R1-2**

Kouji Nawata; Yuma Takida; Yu Tokizane; Takashi Notake; Zhengli Han; Andreas Karsaklian Dal Bosco; Mio Koyama; Hiroaki Minamide
RIKEN, Japan

14:30 **Terahertz Spectroscopy And Quantum Mechanical Simulations Of Crystalline Historical Pigments** **Th-P1-R1-3**

Timothy Korter[1]; Elyse Kleist[1]; Patrick Mounaix[2]; Corinna Koch Dandolo[2]
[1]Syracuse University, United States; [2]University of Bordeaux, France

14:45 **[Keynote] Using Low-Frequency Vibrational Dynamics To Probe Disorder In Organic Molecular Materials** **Th-P1-R1-4**

Axel Zeitler
University of Cambridge, United Kingdom

15:15 **Detection Of Organic Crystallites In Ice Using Terahertz Time-Domain Spectroscopy** **Th-P1-R1-5**

Sergey Mitryukovskiy; Jean-Francois Lampin; Romain Peretti
Institut d'Electronique, de Microélectronique et de Nanotechnologie UMR CNRS 8520, France

15:30 **Identifying Peptide Structures With THz Spectroscopy** **Th-P1-R1-6**

Jens Neu; Ayaka S. Hatano; Elizabeth A. Stone; Golo Storch; Jacob A. Spies; Scott J. Miller; Charles A. Schmuttenmaer
Yale University, United States

15:45 **The Low Protein Concentration Study In An Extended THz Frequency Range** **Th-P1-R1-7**

Olga Cherkasova[1]; Maxim Nazarov[2]; Peter Solyankin[3]; Alexander Shkurinov[4]
[1]Institute of Laser Physics of SB RAS, Russian Federation; [2]Kurchatov Institute National Research Center, Russian Federation; [3]Institute on Laser and Information Technologies of RAS, Branch of the FSRC "Crystallography and Phot, Russian Federation; [4]Lomonosov Moscow State University;Institute on Laser and Information Technologies of RAS, Russian Federation

14:00 - 16:00	**Th-P1-1b Ultrafast Measurements I** **Chair: Paul Planken**	**Room 131+132**
14:00	**All-optical Phase Control Of THz Waveforms** Lauren Gingras[1]; Wei Cui[2]; Aidan W. Schiff-Kearn[2]; Jean-Michel Ménard[2]; David G. Cooke[1] [1]McGill University, Canada; [2]University of Ottawa, Canada	**Th-P1-1b-1**
14:15	**(Withdrawn)**	**Th-P1-1b-2**
14:30	**[Keynote] THz-Field-Driven Electron Tunneling On The Nanoscale** Jun Takeda[1]; Katsumasa Yoshioka[1]; Yasuo Minami[2]; Yusuke Arashida[1]; Ikufumi Katayama[1] [1]Yokohama National University, Japan; [2]Yokohama National University / Tokushima University, Japan	**Th-P1-1b-3**
15:00	**[Keynote] Progress And Challenges In Terahertz Scanning Tunneling Microscopy** Frank Hegmann University of Alberta, Canada	**Th-P1-1b-4**
15:30	**Observation Of The Discharge Structure In 303 GHz Millimeter-Wave Air Breakdown** Masafumi Fukunari; Tetsuo Yokoyama; Shunsuke Tanaka; Ryuji Shinbayashi; Takumi Hirobe; Yuusuke Yamaguchi; Yoshinori Tatematsu; Teruo Saito Research Center for Development of Far-Infrared Region, University of Fukui, Japan	**Th-P1-1b-5**
15:45	**Towards Single-Pulse Spectral Analysis Of MHz-Repetition Rate Sources**	**Th-P1-1b-6**

Gudrun Niehues; Miriam Brosi; Erik Bründermann; Michele Caselle; Stefan Funkner; Benjamin Kehrer; Michael J. Nasse; Meghana Patil; Lorenzo Rota; Johannes L. Steinmann; Marc Weber; Anke-Susanne Müller
Karlsruhe Institute of Technology, Germany

14:00 - 16:00	**Th-P1-1c Modeling and Analysis Techniques** **Chair: Chao Zhang**	**Room 133+134**
14:00	**Modeling Of Under-Critical Millimeter-Wave Discharge Induced By High Excitation Temperature** Yusuke Nakamura; Kimiya Komurasaki; Hiroyuki Koizumi The University of Tokyo, Japan	**Th-P1-1c-1**
14:15	**Investigation Of Metal-rod-array-based Hybrid Plasmonic Terahertz Field** Dejun Liu[1]; Borwen You[1]; Ja-Yu Lu[2]; Toshiaki Hattori[1] [1]Department of Applied Physics, University of Tsukuba, Japan; [2]Department of Photonics, National Cheng Kung University, Taiwan	**Th-P1-1c-2**
14:30	**Predicting The Dry Thickness Of A Wet Paint Layer** Dook van Mechelen ABB Corporate Research, Switzerland	**Th-P1-1c-3**
14:45	**Retrieving Material And Metamaterial Parameters Directly from Time-domain Spectroscopy Time Trace** Romain Perretti[1]; Sergey Mitryukovskiy[2]; Kevin Froberger[3]; Jean-François Lampin[3] [1]IEMN, CNRS, Univ. Lille, France; [2]IEMN CNRS, France; [3]CNRS IEMN, France	**Th-P1-1c-4**
15:00	**Terahertz Spectral Decomposition Method For Mixture Using Independent Component Analysis** Xiaoping Zheng; Zhijie Li; Xiaojiao Deng Tsinghua University, China	**Th-P1-1c-5**
15:15	**Analysis Of The Hybrid Guided Mode Of The Parallel-Plate Ladder Waveguide With Inhomogeneous Dielectric Filling** Navid Mohseny Tonekabony; Mehdi Ahmadi-Boroujeni Sharif University of Technology, Iran	**Th-P1-1c-6**

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15:30	**[Keynote] Terahetz Detection In MOS-FET: A New Model By The Self-mixing** Fabrizio Palma[1]; Rosario Rao[2] [1]Università di Roma La sapienza, Italy; [2]Rome University La Sapienza, Italy	**Th-P1-1c-7**
14:00 - 16:00	**Th-P1-1a Sources, Detectors, and Receivers VI** **Chair: Masahiro Asada**	**Room 141+142**
14:00	**Enhancing The THz Emission Through Surface Patterning In Photo-Conductive Antenna** Goutam Rana[1]; Abhishek Gupta[2]; Arkabrata Bhattacharya[2]; Ravikumar Jain[2]; S. P. Duttagupta[1]; S.S. Prabhu[2] [1]Indian Institute of Technology Bombay, India; [2]Tata Institute of Fundamental Research, India	**Th-P1-1a-1**
14:15	**Terahertz Generation From Dirac Semimetals Surface Plasmon Polaritons Excited By An Electron Beam** Tao Zhao; Min Hu; Renbin Zhong; Sen Gong; Chao Zhang; Shenggang Liu; Shenggang Liu University of Electronic Science and Technology of China, China	**Th-P1-1a-2**
14:30	**High Power Continuously Frequency-tunable Terahertz Radiation Sources And Transmission Lines For DNP-enhanced NMR System** Diwei Liu[1]; Tao Song[2]; Hao Shen[2]; Jie Huang[2]; Ning Zhang[2]; ChengHai Wang[2]; Wei Wang[2] [1] University of Electronic Science and Technology of China, China; [2]University of Electronic Science and Technology of China, China	**Th-P1-1a-3**
14:45	**Enhance Of Impurity Related Terahertz Emission In Optically Pumped GaAs/AlGaAs Quantum Well Structures** Dmitry Firsov[1]; Ivan Makhov[1]; Vadim Panevin[1]; Maxim Vinnichenko[1]; Leonid Vorobjev[1]; Alexey Vasil'ev[2]; Nikolay Maleev[3] [1]Peter the Great Saint Petersburg Polytechnic University, Russian Federation; [2]Submicron Heterostructures for Microelectronics Research and Engineering Center of the RAS, Russian Federation; [3]Ioffe Institute, 194021 St. Petersburg, Russia, Russian Federation	**Th-P1-1a-4**

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15:00	**Leaky Lens Antenna As Optically Pumped Pulsed THz Emitter** Alessandro Garufo[1]; Paolo Sberna[1]; Giorgio Carluccio[1]; Juan Bueno[2]; Joshua Freeman[3]; Nuria Llombart[1]; Edmund Linfield[3]; Alexander Davies[3]; Andrea Neto[1] [1]Delft University of Technology, Netherlands; [2]SRON Netherlands Institute for Space Research, Netherlands; [3]University of Leeds, United Kingdom	**Th-P1-1a-5**
15:15	**Local Oscillator Arrays At 1.46 THz & 1.9 THz For GUSTO** Steven Retzloff[1]; Daniel Koller[1]; Jeffrey Hesler[2]; Cliff Rowland[2]; Thomas Crowe[2] [1]Virginia Diodes Inc, United States; [2]Virginia Diodes Inc., United States	**Th-P1-1a-6**
15:30	**Terahertz Radiation From Graphene Based Hyperbolic Medium** Sen Gong[1]; Xiaodong Feng[2]; Min Hu[2]; Renbin Zhong[2]; Shenggang Liu[2] [1]University of Electronic Science and Technology of China, China; [2]Terahertz Research Center, School of Electronic Science and Engineering, University of Electronic Sc, China	**Th-P1-1a-7**
15:45	**Quantum Theory Of Surface Polariton Cherenkov Light Radiation Source** Chengpeng Yu; Shenggang Liu University of Electronic Science and Technology of China, China	**Th-P1-1a-8**

14:00 - 16:00	**Th-P1-R2 2D Materials for MMW, THz, IR applications II** **Chair: Taiichi Otsuji**	**Reception Hall**
14:00	**Enhancement Of Terahertz-Induced Photothermoelectric Effect In A Carbon Nanotube Fiber By 3D Porous Graphene** Yingxin Wang[1]; Meng Chen[1]; Fei Fan[2]; Yi Huang[2]; Ziran Zhao[1] [1]Tsinghua University, China; [2]Nankai University, China	**Th-P1-R2-1**
14:15	**Low-frequency Noise Characterization Of Graphene FET THz Detectors**	**Th-P1-R2-2**

	Xinxin Yang[1]; Andrei Vorobiev[1]; Kjell Jeppson[1]; Jan Stake[1]; Luca Banszerus[2]; Christoph Stampfer[2]; Martin Otto[3]; Daniel Neumaier[3] [1]Chalmers University of Technology, Sweden; [2]RWTH Aachen University, Germany; [3]AMO GmbH, Germany	
14:30	**[Keynote] Highly Sensitive, Ultrafast Photo-thermoelectric Graphene THz Detector** Klaas-Jan Tielrooij[1]; Sebastian Castilla[1]; Bernat Terres[1]; Marta Autore[2]; Leonardo Viti[3]; Jian Li[4]; Alexey Nikitin[2]; Miriam Vitiello[3]; Rainer Hillenbrand[2]; Frank Koppens[1] [1]ICFO - the Insitute of Photonic Sciences, Spain; [2]CIC NanoGUNE, Spain; [3]NEST, CNR, Italy; [4]Nanjing University, China	**Th-P1-R2-3**
15:00	**[Keynote] An Integrated 200 GHz Graphene FET Based Receiver** Marlene Bonmann; Michael Andersson; Yaxin Zhang; Xinxin Yang; Andrei Vorobiev; Jan Stake Chalmers University of Technology, Sweden	**Th-P1-R2-4**
15:30	**Optimized Bending Stable Carbon Nanotube - Polymer Composite For Room Temperature Thermal Detection** Mingyu Zhang; John Yeow University of Waterloo, Canada	**Th-P1-R2-5**
15:45	**(Withdrawn)**	**Th-P1-R2-6**

14:00 - 16:00	**Th-P1-4 Gyro-Oscillators and Amplifiers V** **Chair: Gregory Denisov**	**Room 432**
14:00	**Towards A Tunable Sub-THz Gyrotron For Spectroscopy Of Positronium** Alexey Fedotov[1]; Mikhail Glyavin[1]; Toshitaka Idehara[2]; Roman Rozental[1]; Alexander Sergeev[3]; Naum Ginzburg[1]; Vladimir Manuilov[1]; Irina Zotova[1] [1]Institute of Applied Physics RAS, Russian Federation; [2]Research Center for Development of Far-Infrared Region, University of Fukui, Japan; [3]IAP RAS, Russian Federation	**Th-P1-4-1**
14:15	**Observation Of FID On BDPA By Pulsed ESR Using A Gyrotron As High-power Millimeter Wave Source**	**Th-P1-4-2**

	Seitaro Mitsudo; Kenshi Hiiragi; Kaishi Kono; Kazuki Dono; Yuya Ishikawa; Yutaka Fujii Research Center for Development of Far-Infrared Region, University of Fukui, Japan	
14:30	**Design Of A Gridded Cusp Gun For A W-band Gyro-TWA** Liang Zhang; Craig W. Donaldson; Adrian W. Cross; Alan D.R. Phelps; Wenlong He University of Strathclyde, United Kingdom	**Th-P1-4-3**
14:45	**Influence Of Electron Beam Misalignment On The Performance Of A 0.24 THz, 1.5 MW Hollow-Cavity Gyrotron Design For DEMO** Parth Chandulal Kalaria; Konstantinos Avramidis; Gerd Gantenbein; stefan illy; Ioannis Pagonakis; Manfred Thumm; John Jelonnek Institute for pulsed power and microwave technology, Germany	**Th-P1-4-4**
15:00	**Progress In The Development Of A Multistage Depressed Collector System For High Power Gyrotrons** Ioannis Pagonakis; Chuanren Wu; Benjamin Ell; Konstantinos Avramidis; Gerd Gantenbein; Stefan Illy; Manfred Thumm; John Jelonnek Karlsruhe Institute of Technology, Germany	**Th-P1-4-5**
15:15	**Radial Bragg Resonators For THz Gyrotrons** Alexander Vikharev[1]; Sergey Kuzikov[2]; Sergey Antipov[2]; Andrey Savilov[1] [1]Institute of Applied Physics RAS, Russian Federation; [2]Euclid Techlabs LLC, United States	**Th-P1-4-6**
15:30	**[Keynote] Amplification Of W-band Multi-frequency Signals Using A Gyro-TWA** Wenlong He[1]; Craig Donaldson[1]; Liang Zhang[1]; Peter Cain[2]; Huabi Yin[1]; Kevin Ronald[1]; Adrian Cross[1]; Alan Phelps[1] [1]The University of Strathclyde, United Kingdom; [2]Keysight Technologies UK Ltd, United Kingdom	**Th-P1-4-7**

16:30 - 18:00	**Th-P2-R1 Spectroscopy of Gases, Liquids, and Solids III** **Chair: Wei Lu**	**Shirotori Hall**
16:30	**Porous Polymers As A Substrate For Terahertz Spectroscopy**	**Th-P2-R1-1**

	Anwen Smith; Andreas Klein; Claudio Balocco; Natasha Shirshova Durham University, United Kingdom	
16:45	**Hydration Of Aqueous Polymers Investigated By Terahertz Spectroscopy And Principal Component Analysis** Katsuyoshi Aoki[1]; Ryusuke Hata[2]; Junya Kaneyasu[2]; Gerhard Schwaab[1]; Kentaro Shiraki[2]; Toshiaki Hattori[2] [1]Ruhr-University Bochum, Germany; [2]University of Tsukuba, Japan	**Th-P2-R1-2**
17:00	**Observation Of Unusual Electronic Phases In Structurally Modulated PrNiO3 Thin Films Via Terahertz Time-domain Spectroscopy** Dhanvir Rana; Eswara phanindra V IISER bhopal, India	**Th-P2-R1-3**
17:15	**Theoretical Investigation On The Terahertz Vibrational Spectroscopy Of Amino Acid Crystal** Ling Jiang; Qi Yu Nanjing Forestry University, China	**Th-P2-R1-4**
17:30	**[Keynote] Massively Parallel Sensing Of Trace Molecules And Isotopologues With Subharmonic Mid-IR Frequency Combs** Konstantin Vodopyanov CREOL, The College of Optics and Photonics, Univ. of Central Florida, United States	**Th-P2-R1-5**

16:30 - 18:00	**Th-P2-1b Free Electron Lasers and Synchrotron Radiation I** **Chair: Mikhail Yurievich Glyavin**	**Room 131+132**
16:30	**Present Status Of Infrared FEL Facility At Kyoto University** Heishun Zen; Siriwan Krainara; Shuya Chatani; Toshiteru Kii; Kai Masuda; Hideaki Ohgaki Institute of Advanced Energy, Kyoto University, Japan	**Th-P2-1b-1**
16:45	**Terahertz Activities At KAERI Ultrafast Electron Diffraction Facility**	**Th-P2-1b-2**

In Hyung Baek[1]; Hyun Woo Kim[1]; Young Chan Kim[1]; Mihye Kim[1]; Sun Jeong Park[1]; Key Young Oang[1]; Kyuha Jang[1]; Kitae Lee[1]; Young Uk Jeong[1]; Nikolay Vinokurov[2]; Thomas Feurer[3]
[1]Korea Atomic Energy Research Institute, Korea, Republic of; [2]Budker Institute of Nuclear Physics, Russian Federation; [3]Institute of Applied Physics, University of Bern, Switzerland

17:00 **FELBE - Upgrades And Status Of The IR/THz FEL User Facility At HZDR** **Th-P2-1b-3**

J. Michael Klopf[1]; Manfred Helm[1]; Susanne C. Kehr[2]; Ulf Lehnert[1]; Peter Michel[1]; Alexej Pashkin[1]; Harald Schneider[1]; Wolfgang Seidel[1]; Stephan Winnerl[1]; Sergei Zvyagin[1]
[1]Helmholtz-Zentrum Dresden-Rossendorf (HZDR), Germany; [2]Technische Universität Dresden, Germany

17:15 **High Power THz Free Electron Laser In China Academy Of Engineering Physics** **Th-P2-1b-4**

Dai Wu[1]; MIng Li[1]; Xinfan Yang[1]; Hanbin Wang[1]; Dexin Xiao[1]; Xiaojian Shu[2]; Xiangyang Lu[3]; Wenhui Huang[4]; Yuhuan Dou[2]
[1]Institute of Applied Electronics, China Academy of Engineering Physics, China; [2]Institute of Applied Physics and Computational Mathematics, China; [3]Institute of Heavy Ion Physics, Peking University, China; [4]Department of Engineering Physics, Tsinghua University, China

17:30 **[Keynote] Lasing And Saturation Of CAEP THz FEL Facility** **Th-P2-1b-5**

yuhuan dou[1]; Xiaojian Shu[1]; Xingfan Yang[2]; Ming Li[2]; Dai Wu[2]; Derong Deng[2]; hanbin Wang[2]; Xiangyang Lu[3]; Zhou Xu[2]
[1]Institute of Applied Physics and Computational Mathematics, China; [2]Institute of Applied Electronics, CAEP, China; [3]Institute of Heavy Ion Physics, Peking University, China

16:30 - 18:00 **Th-P2-1c MMW and THz Wave Radar and Communications I** **Room 133+134**

Chair: Thomas Kürner

16:30 **Terahertz Focusing Reflectarray With Enhanced Bandwidth** **Th-P2-1c-1**

	Xiaolong You; Christophe Fumeaux; Withawat Withayachumnankul University of Adelaide, Australia	
16:45	**An Active Multiplier-by-Six S-MMIC For 500 GHz** Christopher Groetsch[1]; Hermann Massler[2]; Arnulf Leuther[2]; Ingmar Kallfass[1] [1]University of Stuttgart, Germany; [2]Fraunhofer Institute for Applied Solid State Physics, Germany	**Th-P2-1c-2**
17:00	**[Keynote] Filling The THz Gap With Sand: THz Systems On CMOS** Ehsan Afshari; Saghar Seyedabbaszadeh University of Michigan, United States	**Th-P2-1c-3**
17:30	**Simultaneous DoA Estimation And Ranging Of Multiple Objects Using An FMCW Radar With 60 GHz Leaky-Wave Antennas** Matthias Steeg; Asmaa Al Assad; Andreas Stöhr University of Duisburg-Essen, Germany	**Th-P2-1c-4**
17:45	**Sub-Sampling Of RF And THz Waves Using LT-GaAs Fabry-Pérot Cavity Photoconductors Under 1550 Nm Light Excitation** Maximilien Billet[1]; Yann Desmet[1]; Fuanki Bavedilla[1]; Stefano Barbieri[1]; Wolfgang Hänsel[2]; Ronald Holzwarth[2]; Guillaume Ducournau[1]; Jean-François Lampin[1]; Emilien Peytavit[1] [1]IEMN CNRS/Lille University, France; [2]Menlo Systems GmbH, Germany	**Th-P2-1c-5**

16:30 - 18:00	**Th-P2-1a Sources, Detectors, and Receivers VII** **Chair: Tsuneyuki Ozaki**	**Room 141+142**
16:30	**In-line Medicine Inspection By Carbon Nanotube Terahertz Scanners** Meiling Sun[1]; Daichi Suzuki[2]; Yuki Ochiai[2]; Yukio Kawano[2] [1]Tokyo Institute of Technology, China; [2]Tokyo Institute of Technology, Japan	**Th-P2-1a-1**
16:45	**Strain Tuning In MEMS Beam Resonators For Terahertz Bolometer Applications**	**Th-P2-1a-2**

	Boqi Qiu[1]; Ya Zhang[1]; Kouichi Akahane[2]; Naomi Nagai[1]; Kazuhiko Hirakawa[1] [1]Institute of Industrial Science, University of Tokyo, Japan; [2]National Institute of Information and Communications Technology, Japan	
17:00	**Performance Improvements Of THz Imagers Based On Uncooled Antenna-Coupled Bolometer** Jerome Meilhan[1]; Getachew-tilahun Ayenew[1]; Laurent Dussopt[1]; Maher Hamdi[1]; Antoine Hamelin[1]; Bruno Hiberty[2]; Jérémy Lalanne-Dera[1]; Amalya Minasyan[2]; Olivier Redon[1]; François Simoens[1] [1]LETI, France; [2]I2S, France	**Th-P2-1a-3**
17:15	**Near-Quantum-Limited Double-Sideband Noise Temperature Through Room-Temperature Plasmonic Heterodyne Terahertz Spectrometers** Mona Jarrahi; Ning Wang; Semih Cakmakyapan; Yen-Ju Lin UCLA, United States	**Th-P2-1a-4**
17:30	**[Keynote] Novel Bolometric THz Detection By MEMS Resonators** Ya Zhang; Surugu Hosono; Naomi Nagai; Kazuhiko Hirakawa University of Tokyo, Japan	**Th-P2-1a-5**

16:30 - 18:00	**Th-P2-R2 MM and sub-MM wave systems I** **Chair: Mark Henderson**	**Reception Hall**
16:30	**Developments Of Millimeter Wave Backscattering Systems For Fusion Plasma Turbulence Measurements** Tokihiko Tokuzawa[1]; Kazuki Oguri[2]; Shin Kubo[1]; Kenji Tanaka[1]; Hiroshi Yamada[1]; Kiyomasa Watanabe[1]; Akira Ejiri[3]; Shigeru Inagaki[4]; Teruo Saito[5]; Junko Kohagura[6] [1]National Institute for Fusion Science, Japan; [2]Nagoya University, Japan; [3]The University of Tokyo, Japan; [4]Kyushu University, Japan; [5]Fukui University, Japan; [6]University of Tsukuba, Japan	**Th-P2-R2-1**
16:45	**Reducing Losses Of Terahertz Surface Plasmons By Submicron Dielectric Coatings**	**Th-P2-R2-2**

	Vasily Gerasimov[1]; Alexey Nikitin[2]; Boris Knyazev[1]; Alexey Lemzyakov[1]; Ivan Azarov[3] [1]Budker Institute of nuclear physics SB RAS, Russian Federation; [2]Scientific and Technological Center for Unique Instrumentation of RAS, Russian Federation; [3]Rjanov Institute of Semiconductor Physics of the Siberian Branch of the RAS, Russian Federation	
17:00	**A Photonics Enabled Millimetre Wave Frequency Domain Spectrometer For Glucose Concentration Sensing** James Seddon; Katarzyna Balakier; Xiaoli Lin; Chris Graham; Alwyn Seeds; Cyril Renaud UCL, United Kingdom	**Th-P2-R2-3**
17:15	**Optically Pumped Mixing In Photonically Integrated Uni-Travelling Carrier Photodiode** ahmad mohammad[1]; Andrzej Jankowski[2]; Frederic van Dijk[2]; cyril renaud[1] [1]University College London, United Kingdom; [2]III-V Lab, France	**Th-P2-R2-4**
17:30	**[Keynote] Sensitive Millimeter-Wave/Terahertz Gas Spectroscopy Based On SiGe BiCMOS Technology** Dietmar Kissinger[1]; Nick Rothbart[2]; Klaus Schmalz[1]; Johannes Borngräber[1]; Heinz-Wilhelm Hübers[3] [1]IHP, Germany; [2]Humboldt-Universität zu Berlin, Germany; [3]German Aerospace Center (DLR), Germany	**Th-P2-R2-5**

16:30 - 18:00	**Th-P2-4 2D Materials for MMW, THz, IR applications III** **Chair: Miriam Serena Vitiello**	**Room 432**
16:30	**Phase-resolved Terahertz Near-field Nanoscopy Of A Topological Insulator Phonon-polariton Mode** Maria Caterina Giordano[1]; Leonardo Viti[1]; Lorenzo Columbo[2]; Massimo Brambilla[2]; Gaetano Scamarcio[2]; Miriam Serena Vitiello[1] [1]CNR-NANO, Italy; [2]Università di Bari, Italy	**Th-P2-4-1**
16:45	**Analysis Of A Plasmonic Graphene Antenna For Microeletronic Applications**	**Th-P2-4-2**

	Christoph Suessmeier[1]; Sergi Abadal[2]; Luca Banszerus[3]; Felix Thiel[1]; Eduard Alarcon[2]; Anna Katharina Wigger[1]; Albert Cabellos-Aparicio[2]; Christoph Stampfer[3]; Max Lemme[4]; Peter Haring Bolivar[1] [1]University of Siegen, Germany; [2]NaNoNetworking Center in Catalunya (N3Cat), Spain; [3]RWTH Aachen University, Germany; [4]AMO GmbH, Germany	
17:00	**Millimeter Wave Phase Shifter Based On Optically Controlled Carbon Nanotube Layers** Serguei Smirnov; Ilya V. Anoshkin; Dmitri V. Lioubtchenko; Joachim Oberhammer KTH Royal Institute of Technology, Sweden	**Th-P2-4-3**
17:15	**Millimeter Wave Beam Steering Based On Optically Controlled Carbon Nanotube Layers** Dmitri Lioubtchenko; Serguei Smirnov; Ilya Anoshkin; Joachim Oberhammer KTH Royal Institute of Technology, Sweden	**Th-P2-4-4**
17:30	**2D Materials Coupled To Hybrid Metal-dielectric Waveguides For THz Technology** Panhui Huang[1]; Sylvain Massabeau[1]; Jerome Tignon[1]; Sukhdeep Dhillon[1]; Aloyse Degiron[2]; Juliette Mangeney[3] [1]Laboratoire Pierre Aigrain, France; [2]C2N, France; [3]1Laboratoire Pierre Aigrain, Ecole normale supérieure, France	**Th-P2-4-5**
17:45	**Influence Of Optical Pumping On Properties Of Carbon Nanotubes With Different Geometric Parameters In THz Frequency Range** Mikhail Khodzitsky[1]; Petr Demchenko[1]; Daniel Gomon[1]; Dmitrii Lioubtchenko[2]; Ilya Anoshkin[2] [1]ITMO University, Russian Federation; [2]KTH - Royal Institute of Technology, Sweden	**Th-P2-4-6**

18:00 - 19:30	**Th-POS Poster Session**	**Event Hall**
18:00	**Noise Analysis And Parameters Optimization Of VLWIR Detector Pre-amplifier Based On FTS Technology** Yugui Zhang; Weigang WANG; Jianjie YIN Beijing Institute of Space Mechanics & Electricity, China	**Th-POS-01**

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18:00	**Terahertz Pump—Terahertz Probe Spectroscopy Of Multilayer Graphene** Kosaku Kato; Junki Asai; Thanh Nhat Khoa Phan; Masashi Yoshimura; Makoto Nakajima Osaka University, Japan	**Th-POS-02**
18:00	**The Data Analysis Of Continuous Wave Terahertz Spectrometer In Time Domain** Deyin Kong; Xiaojun Wu; Jun Dai; Cunjun Ruan SCHOOL OF ELECTRONICS INFORMATION ENGINEERING, China	**Th-POS-03**
18:00	**THz-TDS Study On Tetrabutylammonium Bromide Hydrate** Yasuhiro Miwa[1]; Keisuke Matsumura[2]; Kei Takeya[2]; Atsushi Tani[1] [1]Kobe University, Japan; [2]Nagoya University, Japan	**Th-POS-04**
18:00	**Hydration Dynamics Around Hydrophobic Solutes: A Terahertz Spectroscopic Investigation** RAJIB MITRA SNBNCBS, India	**Th-POS-05**
18:00	**Ultrafast Photocarrier Dynamics In Cd3As2 Film In Terahertz Band** Guohong Ma[1]; Wenjie Zhang[2]; Gang Chen[3]; Zuanming Jin[1]; Xian Lin[1] [1]Shanghai University, China; [2]Shanghai university, China; [3]Shanghai Institute of Technical Physics, China	**Th-POS-06**
18:00	**THz-TDS Transmission Measurements Of Spectroscopic Lamps Plasma** Giuseppe Galatola Teka[1]; Marco Zerbini[2]; Francesca Bombarda[2]; Djamshid Damry[3] [1]ENEA - Padova, Italy; [2]ENEA, Italy; [3]Department of Physics,Clarendon Laboratory, United Kingdom	**Th-POS-07**
18:00	**Microwave Spectroscopy Of Highly Excited 5snf 1F3 Rydberg States Of Sr Atom** Rio Ito; Kentaro Tsurui; Tetsuya Sugawara; Yusuke Kazama; Kenta Kitano; Haruka Maeda Aoyama Gakuin Univ., Japan	**Th-POS-08**
18:00	**Ultrafast Solvation Dynamics Probed By Optical-Pump THz-Probe Spectroscopy** Claudius Hoberg; Patrick Balzerowski; Thorsten Ockelmann; Martina Havenith Ruhr-Universität Bochum, Germany	**Th-POS-09**
18:00	**N2O Gas Detection Away From 93 M Using THz Time-Domain Spectroscopy**	**Th-POS-10**

Tae-In Jeon; Gyeong-Ryul Kim; Hyeon-Sang Bark; Hwa-Bin Lee; Seng-Bo Lee
Korea Maritime and Ocean University, Korea, Republic of

18:00 **THz Time-Domain Coherent Raman Spectroscopy Of Aqueous NaCl Solutions** **Th-POS-11**

Shoji Hayashi[1]; Shun Nakae[1]; Kunji Takemura[1]; Stefan Funkner[2]; Hideaki Kitahara[1]; Takashi Furuya[1]; Kohji Yamamoto[1]; Jessica Afalla[1]; Valynn Magusara[1]; Dmitry Bulgarevich[1]; Masahiko Tani[1]
[1]Research Center for Development of Far-Infrared Region, University of Fukui, Japan; [2]Institute for Photon Science and Synchrotron Radiation, Karlsruhe Institute of Technology, Germany

18:00 **AlAs Based Heterostructures For THz Plasmonics** **Th-POS-12**

Anton Shchepetilnikov[1]; Alina Khisameeva[1]; Vyacheslav Muravev[1]; Sergey Gubarev[1]; Pavel Gusikhin[1]; Dmitriy Frolov[1]; Yuri Nefyodov[1]; Igor Kukushkin[1]; Christian Reichl[2]; Lars Tiemann[2]; Werner Dietsche[2]; Werner Wegscheider[2]
[1]Institute of Solid State Physics RAS, Russian Federation; [2]ETH Zurich, Switzerland

18:00 **Spectroscopic Sensing Of Opioids In The THz Region** **Th-POS-13**

W-D Zhang[1]; A. Bykhovski[2]; E. Brown[2]
[1]TeraPico LLC, United States; [2]Wright State University, United States

18:00 **Origins Of Heat Generation On Mixing Water And Dimethyl Sulfoxide** **Th-POS-14**

Kazuko Mizuno[1]; Takashi Sumikama[2]; Yoshinori Tamai[3]; Masahiko Tani[1]
[1]Research Center for Far Infrared Region, University of Fukui, Japan; [2]WPI Nano Life Science Institute, Kanazawa University, Japan; [3]Graduate School of Engineering, University of Fukui, Japan

18:00 **Experimental Binary Optimisation Of Resonant Dipole Antennas For Remote Sensing Below 2THz** **Th-POS-15**

Christian Sørensen; Thomas Søndergaard; Esben Skovsen
Aalborg University, Denmark

18:00 **Cascode Enhanced Junctionless Field Effect Transistor THz Detector** **Th-POS-16**

	Michal Zaborowski[1]; Przemyslaw Zagrajek[2]; Daniel Tomaszewski[1]; Jerzy Zajac[1]; Jacek Marczewski[1] [1]Institute of Electron Technology, Poland; [2]Military University of Technology, Poland	
18:00	**Bloch Oscillations Signature Of THz Electroluminescence From SiC Natural Superlattices** Vladimir Sankin; Alexander Andrianov; Alexey Petrov; Alexey Zakhar'in; Pavel Shkrebiy; Sergey Nagalyuk Ioffe Institute, Russian Federation	**Th-POS-17**
18:00	**Multi-band Integrated Quantum Well Infrared Photodetectors** Zhifeng Li; YouLiang Jing; YuWei Zhou; Ning Li; XiaoShuang Chen; Wei Lu; XueChu Shen Shanghai Institute of Technical Physics, Chinese Academy of Sciences, China	**Th-POS-18**
18:00	**2D Plasmonic Terahertz Detection Under Static Magnetic Field** Lei Cao; Jing Ding; Qiang Fu; Bang Wu Huazhong University of Science and Technology, China	**Th-POS-19**
18:00	**Development And Modeling Of Folded-Waveguide Slow-Wave Structures For Millimeter-Band Traveling-Wave Tubes** Artem Terentyuk[1]; Andrey Rozhnev[2]; Nikita Ryskin[2]; Andrey Starodubov[1]; Viktor Galushka[1]; Anton Pavlov[1] [1]Saratov State University, Russian Federation; [2]Saratov Branch, Institute of Radio Engineering and Electronics RAS, Russian Federation	**Th-POS-20**
18:00	**Generation Of Quantum Correlated Optical - Terahertz Photon Pairs And Calibration Of Nonlinear-Optical Detectors Via Parametric Down-Conversion** Galiya Kitaeva[1]; Vladimir Kornienko[2]; Kirill Kuznetsov[1]; Andrey Leontyev[1]; Tatiana Novikova[1] [1]Lomonosov Moscow State University, Russian Federation; [2]Lomonosov Moscow State University, All-Russia Research Institute of Automatics (VNIIA), Russian Federation	**Th-POS-21**
18:00	**Investigation On Stability Of The Beam-wave Interactions for G-band Staggered Double Vane TWT**	**Th-POS-22**

Cunjun Ruan; Huafeng Zhang; Jian Tao; Yanbin He
SCHOOL OF ELECTRONICS INFORMATION ENGINEERING, China

18:00 **Real-time Detection Of Terahertz Wave From Quantum Cascade Laser By Frequency Up-conversion In A Nonlinear Crystal** **Th-POS-23**

Shingo Saito[1]; Kouji Nawata[2]; Shin'ichiro Hayashi[3]; Yoshinori Uzawa[3]; Hiroaki Minamide[2]; Norihiko Sekine[3]
[1]1National Institute for Information and Communications Technology, Japan; [2]RIKEN Center for Advanced Photonics, Japan; [3]National Institute of Information and Communications Technology, Japan

18:00 **Sensitivity Improvement Of Heterodyne Electro-Optic Sampling** **Th-POS-24**

Hideaki Kitahara[1]; Takuro Yasumoto[1]; Daiki Goto[1]; Hiroyuki Kato[1]; Masaki Shiihara[1]; Jessica Afalla[1]; Valynn Mag-usara[1]; Kohji Yamamoto[1]; Takashi Furuya[1]; Elmer Estacio[2]; Michael Bakunov[3]; Masahiko Tani[1]
[1]Research Center for Development of Far-Infrared Region, University of Fukui, Japan; [2]National Institute of Physics, University of the Philippines, Philippines; [3]University of Nizhny Novgorod, Russian Federation

18:00 **Compact Electro-Optical Frequency Tunable Sensors For Accelerator Diagnostics Based On Telecommunication Technology** **Th-POS-25**

Erik Bruendermann[1]; Isao Morohashi[2]; Shinya Nakajima[2]; Shingo Saito[2]; Norihiko Sekine[2]; Anke-Susanne Mueller[1]; Iwao Hosako[2]
[1]Karlsruhe Institute of Technology (KIT), Institute for Beam Physics and Technology (IBPT), Germany; [2]National Institute of Information and Communications Technology (NICT), Japan

18:00 **AlGaN/GaN Field Effect Transistors Based On Lateral Schottky Barrier Gates As Millimeter Wave Detectors** **Th-POS-26**

Pavel Sai[1]; Dmytro But[1]; Krzesimir Nowakowski-Szkudlarek[1]; Jacek Przybytek[1]; Pavel Prystawko[1]; Ivan Yahniuk[1]; Piotr Wiśniewski[2]; Bartlomiej Stonio[2]; Mateusz Słowikowski[2]; Sergey Rumyantsev[3]; Wojciech Knap[4]; Grzegorz Cywiński[1]
[1]Institute of High Pressure Physics PAS, Poland; [2]CEZAMAT Warsaw University of Technology, Poland; [3]National Research University of Information Technologies, Russian Federation; [4]Laboratoire Charles Coulomb (L2C), University of Montpellier, CNRS, France

18:00 **Terahertz Pulses Emitters With Full Electrical Control On Polarization For THz-TDS** **Th-POS-27**

Kenneth Maussang[1]; José Palomo[2]; Juliette Mangeney[2]; Sukhdeep Dhillon[2]; Jérôme Tignon[2]
[1]University of Montpellier - Institut d'Electronique et des Systèmes, France; [2]Laboratoire Pierre Aigrain (Ecole Normale Supérieure, Université Pierre et Marie Curie, Université D, France

18:00 **A Compact Schottky Heterodyne Receiver For 2.06 THz Neutral Oxygen [OI]** **Th-POS-28**

Darren Hayton[1]; Christine Chen[1]; Jeanne Treuttel[2]; Erich Schlecht[1]; Jose Siles[1]; Robert Lin[1]; Imran Mehdi[1]
[1]JPL, United States; [2]LERMA, France

18:00 **Reliability Improvement Of High-power THz GaN Gunn Sources For Active Imaging Systems** **Th-POS-29**

Ahid S. Hajo[1]; Oktay Yilmazoglu[1]; Armin Dadgar[2]; Franko Küppers[1]
[1]Technische Universität Darmstadt, Germany; [2]Otto-von-Guericke-Universität Magdeburg, Germany

18:00 **Research Progress On High Gain GaAs Terahertz Emitter** **Th-POS-30**

Hong Liu; Wei Shi; Lei Hou; Cheng Ma; Chengang Dong; Lei Yang; Shaoqiang Wang
Xi'an University of Technology;Key Laboratory of Ultrafast Photoelectric Technology and Terahertz Sc, China

18:00 **45 T Pulsed Magnets For THz Gyrotrons** **Th-POS-31**

Houxiu Xiao
Huazhong University of Science and technology, China

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18:00	**Double-Beam Millimeter-Wave Band BWT And TWT On A Spirally Bent Rectangular Waveguide** Alexander Kurayev[1]; Alexey Rak[1]; Artem Badarin[2]; Semen Kurkin[2]; Alexey Koronovskii[2]; Alexander Hramov[3] [1]Belarusian State University of Informatics and Radioelectronics, Belarus; [2]Saratov State University, Russian Federation; [3]Yuri Gagarin State Technical University of Saratov, Russian Federation	**Th-POS-32**
18:00	**First Demonstration Of Continuous Wave Terahertz Radiation From Semi-Insulating GaAs Photomixer With Nanowire** Shihab Al-Daffaie; Oktay Yilmazoglu; Alaa Jumaah; Franko Küppers Technische Universität Darmstadt, Germany	**Th-POS-33**
18:00	**Strategic Design Of Room Temperature Terahertz Photodetectors** José Gustavo Méndez Lara[1]; Peinan Ni[2]; Manuel Alejandro Justo Guerrero[1]; Maxime Hugues[2]; Yvon Cordier[2]; Andrés De Luna Bugallo[1]; Patrice Genevet[2]; Elodie Strupiechonski[1] [1]Centro de Investigación y de Estudios Avanzados del Instituto Politécnico Nacional, Mexico; [2]Centre de Recherche sur l'Hétéro-Epitaxie et ses Applications, France	**Th-POS-34**
18:00	**Nonparallel Mirrors Fast Scanning For Security Imaging With Terahertz-waves** Congjing Hao; Peipei Hou; Shichao Li; zhuo wang; qu Jia Beijing Aerospace Yilian Science & Technology Development co., ltd., China	**Th-POS-35**
18:00	**A Robust And Fast Algorithm For ALMA Local Oscillator Power Amplifiers Optimization** Giorgio Siringo Joint ALMA Observatory & European Southern Observatory, Chile	**Th-POS-36**
18:00	**Compact Antennas Pattern Measurement Setup At 240 GHz**	**Th-POS-37**

	Cybelle Goncalves[1]; Elsa Lacombe[2]; Carlos del Río[3]; Frederic GIANESELLO[2]; Cyril Luxey[4]; Guillaume Ducournau[5] [1]IEMN, France; [2]STMicroelectronics, France; [3]Public University of Navarre, Spain; [4]Laboratory of Polytech Nice-Sophia, France; [5]Institute of Electronics, Microelectronics and Nanotechnology, France	
18:00	**The Study Of Q-band Sheet Beam Backward Wave Oscillator Based On A Planar U-shaped Slot-line Slow-wave Structure** Ruichao Yang[1]; Chong Ding[1]; Gangxiong Wu[1]; Lingna Yue[1]; Jin Xu[1]; Qian Li[1]; Xia Lei[1]; Xuebin Jiang[1]; Shuanzhu Fang[1]; Hairong Yin[1]; Guoqing Zhao[1]; Zhanliang Wang[1]; Yubin Gong[1]; Yang Liu[2]; Hailong Wang[2]; Wenxiang Wang[1]; Yanyu Wei[1] [1]School of Electronic Science and Engineering, University of Electronic Science and Technology of Chi, China; [2]Southwest China Research Institute of Electronic Equipment, China	**Th-POS-38**
18:00	**220 GHz Dual Beam Photonic Crystal Loaded Folded Waveguide TWT** Ningjie Shi[1]; Duo Xu[1]; Hexin Wang[1]; Zhanliang Wang[1]; Huarong Gong[1]; Zhaoyun Duan[1]; Zhigang Lu[1]; Yanyu Wei[1]; Yubin Gong[1]; Jinjun Feng[2] [1]University of Electronic Science and Technology of China, China; [2]Beijing Vacuum Electronics Research Institute, China	**Th-POS-39**
18:00	**Corrugated Diamond Window For ECRH Transmission Line** Alexander Vikharev[1]; Sergey Kuzikov[2]; Sergey Antipov[2]; Nikolay Peskov[1] [1]Institute of Applied Physics RAS, Russian Federation; [2]Euclid Techlabs LLC, United States	**Th-POS-40**
18:00	**Photonics Wireless Terahertz Wave System For Space Exploration** Christine P. Chen; Darren J. Hayton; Lorene Samoska; Robert Dengler; Imran Mehdi JPL, United States	**Th-POS-41**
18:00	**Investigation Of Staggered Double Grating Slow Wave Structure Loaded By Photonic Crystals**	**Th-POS-42**

Duo Xu; Ningjie Shi; Hexin Wang; Zhangliang Wang; Zhaoyun Duan; Huarong Gong; Yubin Gong
University of Electronic Science and Technology of China, China

18:00 **Millimeter Wave, 1 MW, CW Water Load** **Th-POS-43**

Alexander Vikharev[1]; Sergey Kuzikov[2]; Sergey Antipov[2]; Nikolay Peskov[1]
[1]Institute of Applied Physics RAS, Russian Federation; [2]Euclid Techlabs LLC, United States

18:00 **Design Of The Optical Components In The ITER Equatorial EC H& CD Launcher** **Th-POS-44**

Ken Kajiwara[1]; Ganji Abe[2]; Noriyuki Kobayashi[2]; Ryosuke Ikeda[1]; Yasuhisa Oda[1]; Takayuki Kobayashi[1]; Koji Takahashi[1]
[1]National Institutes for Quantum and Radiological Science and Technology,, Japan; [2]National Institutes for Quantum and Radiological Science and Technology, Japan

18:00 **Improved ESD Protection Design For High-Frequency Applications In CMOS Technology** **Th-POS-45**

Chun-Yu Lin
NTNU, Taiwan

18:00 **0.22 THz Ridged Sine Waveguide BWO And Sheet Beam Electron Optical System** **Th-POS-46**

Pengcheng Yin[1]; Jin Xu[1]; Shuanzhu Fang[1]; Guoqing Zhao[1]; Wenxiang Wang[1]; Hairong Yin[1]; Linna Yue[1]; Yanyu Wei[1]; Ningjie Shi[1]; Luqi Zhang[2]; Dazhi Li[3]
[1]University of Electronic Science and Technology of China, China; [2]Huawei Technologies Co., Ltd. Chengdu, Sichuan, China, China; [3]Institute for Laser Technology Suito, Osaka 656-0817, Japan

18:00 **Magnetron Injection Gun For 203GHz Reflective Gyro-BWO System** **Th-POS-47**

Cheng-Hung Tsai[1]; Tsun-Hsu Chang[1]; Toshitaka Idehara[2]
[1]Department of Physics, National Tsing Hua University, Taiwan; [2]Research Center for Development of Far-Infrared Region, Fukui University, Japan

18:00 **Gyrotron Operation In The 'no-start-current' Zone** **Th-POS-48**

	Olgerts Dumbrajs[1]; Gregory Nusinovich[2] [1]Institute of Solid State Physics, University of Latvia, Latvia; [2]University of Maryland, United States	
18:00	**Generation Of Powerful Pulses In Gyrotrons With The Backward Output Of The Radiated Wave** Andrei Savilov; Ivan Osharin Institute of Applied Physics of Russian Academy of Sciences, Russian Federation	**Th-POS-49**
18:00	**High-harmonic-gyrotron Cavities With Short Irregularities** Andrei Savilov; Ivan Osharin; Ilya Bandurkin; Yuriy Kalynov; Nikolay Zavolsky; Yulia Oparina Institute of Applied Physics of Russian Academy of Sciences, Russian Federation	**Th-POS-50**
18:00	**Magnetron Injection Gun For The 2 MW 170 GHz Modular Coaxial Cavity Gyrotron** Ioannis Pagonakis[1]; Konstantinos Avramidis[1]; Gerd Gantenbein[1]; Stefan Illy[1]; Zisis Ioannidis[1]; Francois Legrand[2]; Sebastian Ruess[1]; Tobias Ruess[1]; Tomasz Rzesnicki[1]; Manfred Thumm[1]; John Jelonnek[1] [1]Karlsruhe Institute of Technology, Germany; [2]Thales Electron Devices, France	**Th-POS-51**
18:00	**Design Of A 140 GHz, 1MW Gyrotron At UESTC** Ying-hui Liu[1]; Chao-jun Lei[2]; Xin-jian Niu[1]; Hui Wang[1]; Guo Guo[1]; Jian-wei Liu[1]; Shuangshi Zhang[2]; Hongfu Li[1] [1]University of Electronic Science and Technology of China, China; [2]The Chinese People's Armed Police Force Academy, China	**Th-POS-52**
18:00	**Wideband Chaotic Sub-THz Generation Based On Excitation Of Rogue Waves In Gyrotron** Roman Rozental[1]; Irina Zotova[1]; Naum Ginzburg[1]; Alexander Sergeev[1]; Mikhail Morozkin[1]; Vladimir Tarakanov[2] [1]Institute of Applied Physics RAS, Russian Federation; [2]Moscow Engineering Physics Institute, Russian Federation	**Th-POS-53**
18:00	**A Simple Approach To Wideband Frequency Tuning In Gyrotron: Proof-of-Principle Demonstration**	**Th-POS-54**

	Ilya Bandurkin; Alexey Fedotov; Mikhail Glyavin; Alexey Luchinin; Mikhail Morozkin; Roman Rozental; Mikhail Proyavin; Irina Zotova Institute of Applied Physics RAS, Russian Federation	
18:00	**Spontaneous Coherent Cyclotron THz Super-radiation From A Dense Electron Bunch** Yuliya Oparina[1]; Andrei Savilov[2] [1]Institute of Applied Physics RAS, Russian Federation; [2]Institute of Applied Physics of the Russian Academy of Sciences, Russian Federation	**Th-POS-55**
18:00	**Project Of An Intense Terahertz-wave Source Based On Coherent Cherenkov Radiation Matched To Circle Plane Wave** Norihiro Sei[1]; Takeshi Sakai[2]; Toshinari Tanaka[2]; Yasushi Hayakawa[2]; Yoske Sumitomo[2]; Yumiko Takahashi[2]; Ken Hayakawa[2]; Kyoko Nogami[2] [1]Research Institute for Measurement and Analytical Instrumentation, National Institute of Advanced In, Japan; [2]Laboratory for Electron Beam Research and Application, Nihon University, Japan	**Th-POS-56**
18:00	**Simulation For Combination Of Velocity Bunchings And Coherent THz Undulator Radiation** Yoske Sumitomo; Ken Hayakawa; Yasushi Hayakawa; Kyoko Nogami; Takeshi Sakai; Yumiko Takahashi; Toshinari Tanaka Nihon University, Japan	**Th-POS-57**
18:00	**Electron Acceleration By Intense THz Pulses** Zoltan Tibai; Szabolcs Turnar; Jozsef Andras Fulop; Gabor Almasi; Janos Hebling University of Pecs, Hungary	**Th-POS-58**
18:00	**High Power Coherent Terahertz Wave Sources At LEBRA Linac In Nihon University** Takeshi Sakai[1]; Norihiro Sei[2]; Toshinari Tanaka[1]; Yasushi Hayakawa[1]; Yoske Sumitomo[1]; Ken Hayakawa[1]; Kyoko Nogami[1]; Hiroshi Ogawa[2] [1]Nihon University, Japan; [2]National Institute of Advanced Industrial Science and Technology, Japan	**Th-POS-59**
18:00	**Evaluation Of Thermal Leakage In WR-5 Waveguide Calorimeter**	**Th-POS-60**

Yuya Tojima[1]; Moto Kinoshita[1]; Hitoshi Iida[1]; Katsumi Fujii[2]
[1]National Institute of Advanced Industrial Science and Technology(AIST), Japan; [2]National Institute of Information and Communications Technology(NICT), Japan

18:00 **Calibration Of Power Meter With Tapered Waveguide At Frequency Range Of 110--170 GHz** **Th-POS-61**
Moto Kinoshita; Yuya Tojima; Hitoshi Iida
National Institute of Advanced Industrial Science and Technology, Japan

18:00 **Current Status Of Terahertz Frequency Standard And Metrology At NICT** **Th-POS-62**
Shigeo Nagano; Hiroyuki Ito; Masatoshi Kajita; Yuko Hanado; Tetsuya Ido
National Institute of Information and Communications Technology, Japan

18:00 **Terahertz Wave Heterodyne Detection Based On Parametric Up-conversion At Room Temperature** **Th-POS-63**
Shin'ichiro Hayashi; Yoshinori Uzawa
National Institute of Information and Communications Technology, Japan

18:00 **Random Error Estimation In Complex Refractive Index Measured By Transmission Mode Terahertz Time Domain Spectroscopy** **Th-POS-64**
Kentaro Kurake; Kento Kinumura; Shun Takagi; Norihisa Hiromoto; Saroj Tripathi
Shizuoka University, Japan

18:00 **Fabry-Pérot Interferometer Scanned By Geometric Phase** **Th-POS-65**
Seigo OHNO
Tohoku University, Japan

18:00 **Amplitude-Modulated Continuous-Wave Ranging System With Resonant-Tunneling-Diode Terahertz Oscillator** **Th-POS-67**
Jiyu Hu; Ryotaka Wakasugi; Safumi Suzuki; Masahiro Asada
Tokyo Institute of Technology, Japan

18:00 **Spectroscopic Range Points Migration Method For Wide-beam Terahertz Imaging** **Th-POS-68**
Takamaru Matsui[1]; Shouhei Kidera[2]
[1]Graduate School of Informatics and Engineering, University of Electro-Communications, Japan; [2]1.Graduate School of Informatics and Engineering, The University of Electro-Communications,, Japan

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18:00	**0.65 THz Sheet Beam Traveling Wave Tube Based Upon Truncated Sinewaveguide** Shuanzhu Fang[1]; Jin Xu[1]; Xuebing Jiang[1]; Xia Lei[1]; Pengcheng Yin[1]; Quan Yang[1]; Tingting Guo[1]; Gangxiong Wu[1]; Qian Li[1]; Chong Ding[1]; Ruichao Yang[1]; Guoqing Zhao[1]; Hairong Yin[1]; Lingna Yue[1]; Dazhi Li[2]; Wenxiang Wang[1]; Yanyu Wei[1] [1]University of Electronic Science and Technology of China, China; [2]Institute for Laser Technology Suito, Osaka 656-0817, Japan, Japan	**Th-POS-69**
18:00	**A High-gain Antenna With Polarization-Division Multiplexing For Terahertz Wireless Communications** Chao Shu[1]; Shaoqing Hu[1]; Yuan Yao[2]; Xiaodong Chen[1] [1]Queen Mary University of London, United Kingdom; [2]Beijing University of Posts and Telecommunications, China	**Th-POS-70**
18:00	**Propagation Measurements For Indoor Wireless Communications At 350/650 GHz** Heng Zhao; Leihao Wei; Mona Jarrahi; Gregory Pottie University of California, Los Angeles, United States	**Th-POS-71**
18:00	**Fast Switching And Double Resonance Of Nonlinear Transistors In Terahertz Regime** Chao Zhang[1]; Yee Sin Ang[2]; L. K. Ang[2]; Zhongshui Ma[3] [1]University of Wollongong, Australia; [2]Singapore University of Technology and Design, Singapore; [3]Peking University, China	**Th-POS-72**
18:00	**Graphene Conductivity Mapping Using Terahertz Time-domain Reflection Spectroscopy** Hungyen Lin[1]; Philipp Braeuninger-Weimer[2]; Varun Kamboj[3]; David Jessop[3]; Riccardo Degl'Innocenti[1]; Harvey Beere[3]; David Ritchie[3]; Stephan Hofmann[2]; Axel Zeitler[4] [1]Department of Engineering, Lancaster University, United Kingdom; [2]Department of Engineering, University of Cambridge, United Kingdom; [3]Cavendish Laboratory, University of Cambridge, United Kingdom; [4]Department of Chemical Engineering and Biotechnology, University of Cambridge, United Kingdom	**Th-POS-73**

18:00	**Tunable Fano Resonance Using Graphene Integrated Metasurface** Quan Li; Shuang Wang Tianjin University of Technology and Education, China	**Th-POS-74**
18:00	**Spin-polarized GaAs Surface Studied By First-principles Method With SO Interaction For THz Emission Application** Mary Clare Escano[1]; Hideaki Kasai[2]; Masahiko Tani[1] [1]Research Center for Development of Far Infrared Region, University of Fukui, Japan; [2]National Institute of Technology, Akashi, Japan	**Th-POS-75**
18:00	**Microfluidic Chip With Sandwich Structure For Terahertz Spectra Of Glycerol** Bo Su; Yaxiong Wu; Yiwei Wen; Jingsuo He; Shengbo Zhang; Cunlin Zhang Capital Normal University, China	**Th-POS-76**
18:00	**Photothermal Conversion And Fast Response Properties Of 3D Graphene Foam In The Terahertz Range** Meng Chen[1]; Yinxin Wang[1]; Fei Fan[2]; Yi Huang[3]; Ziran Zhao[1] [1]Key Laboratory of Particle & Radiation Imaging (Tsinghua University), Tsinghua University, China; [2]Institute of Modern Optics, Nankai University, China; [3]Key Laboratory of Functional Polymer Materials, Nankai University, China	**Th-POS-77**
18:00	**Stimulated Emission In 2.8 - 3.5 Mm Wavelength Range From Peltier Cooled HgTe/CdHgTe Quantum Well Heterostructures** Sergey Morozov Institute for Physics of Microstructures, Russian Federation	**Th-POS-78**
18:00	**The Bias Voltage And Photon Frequency Effects On The Negative Optical Conductance Of A Gapped Single Layer Graphene P-n Junction In THz To IR Regime** Shareef Al-Tikrity University of Wollongong, Australia	**Th-POS-79**
18:00	**Carrier Dynamics In SnS2 Single Crystals And Vertical Nanostructures: Role Of Edges** KATERYNA KUSHNIR[1]; Erin Morissette[2]; Binod Giri[1]; Curtis Doiron[1]; Ronald Grimm[1]; Pratap Rao[1]; Lyubov Titova[1] [1]WPI, United States; [2]wpi, United States	**Th-POS-80**

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18:00	**Tunable Polarization-Independent Terahertz Band-Stop Filter Based On Graphene Metasurface** Jiang-Yu Liu; Tie-Jun Huang; Pu-Kun Liu Peking University, China	**Th-POS-81**
18:00	**Terahertz Conductivity Of Photoexcited Multi-layer Graphene** Alexander Grebenchukov[1]; Anton Zaitsev[1]; Petr Demchenko[1]; Egor Kornilov[1]; Mikhail Novoselov[1]; Evgeniya Kovalska[2]; Anna Baldycheva[2]; Mikhail Khodzitsky[1] [1]ITMO University, Russian Federation; [2]University of Exeter, United Kingdom	**Th-POS-82**

Friday, September 14, 2018

08:45 - 09:00	**Announcements**	**Shirotori Hall**
09:00 - 09:45	**Fr-A1-S Plenary Session** **Chair: Taiichi Otsuji**	**Shirotori Hall**
09:00	**Tailored Nano-electronics And Photonics With 2D Materials** Miriam Serena Vitiello Consiglio Nazionale delle Ricerche-Istituto Nanoscienze, Italy	**Fr-A1-S-1**
10:15 - 12:15	**Fr-A2-R1 Metrology** **Chairs: Andreas Steiger, Stefano Barbieri**	**Shirotori Hall**
10:15	**[Keynote] Nanothermometry Of Electrons And Phonons** Qianchun Weng[1]; Robb Puttock[2]; Craig Barton[2]; Vishal Panchal[2]; Le Yang[3]; Zhenghua An[3]; Yusuke Kajihara[1]; Wei Lu[4]; Alexander Tzalenchuk[2]; Susumu Komiyama[1] [1]The University of Tokyo, Japan; [2]National Physical Laboratory, United Kingdom; [3]Fudan University, China; [4]Shanghai Institute of Technical Physics, China	**Fr-A2-R1-1**
10:45	**[Keynote] Frequency Noise Power Spectral Density Of A Molecular THz-laser Using A Fs-fibre Laser Comb With 1GHz Repetition Rate** Stefano Barbieri[1]; Antoine Pagies[1]; Sophie Eliet[1]; Jean-Francois Lampin[1]; Giorgio Santarelli[2]; Wolfgang Hänsel[3]; Ronald Holzwarth[3] [1]IEMN Laboratory, CNRS and University of Lille, France; [2]Laboratoire LP2N, IOGS - CNRS - Université de Bordeaux, France; [3]Menlo Systems GmbH, Germany	**Fr-A2-R1-2**
11:15	**All-optical Vector Network Analyzer With 500 GHz Bandwidth And 76 MHz Frequency Resolution**	**Fr-A2-R1-3**

	Paul Struszewski[1]; Mark Bieler[2] [1]Physikalische-Technische Bundesanstalt, Germany; [2]Physikalisch-Technische Bundesanstalt, Germany	
11:30	**Total Internal Reflection Geometry For Sensitive THz Material Characterization** Xudong Liu[1]; Qiushuo Sun[2]; Yiwen Sun[1]; Emma Pickwell-MacPherson[3] [1]Shenzhen University, China; [2]The Chinese University of Hong Kong, China; [3]The University of Warwick, United Kingdom	**Fr-A2-R1-4**
11:45	**Time-Unresolvable Thin Film Characterization Using A Genetic Algorithm** XUEQUAN CHEN[1]; Emma Pickwell-MacPherson[2] [1]The Chinese University of Hong Kong, China; [2]Warwick University, United Kingdom	**Fr-A2-R1-5**
12:00	**A Reference Material For Accurate THz Measurements** Andreas Steiger[1]; Mathias Kehrt[1]; Anselm Deniger[2] [1]PTB, Germany; [2]Toptica Photonics AG, Germany	**Fr-A2-R1-6**

10:15 - 12:15	**Fr-A2-1b Free Electron Lasers and Synchrotron Radiation II** **Chair: Yuhuan Dou**	**Room 131+132**
10:15	**[Keynote] Free Electron Laser Based On A Multi-Stage System Of RF Wigglers** Andrei Savilov; Ilya Bandurkin; Sergey Kuzikov Institute of Applied Physics of Russian Academy of Sciences, Russian Federation	**Fr-A2-1b-1**
10:45	**Powerful Two-stage THz-range FEL Based On Intense Parallel Sheet Beams: Design, Simulations And Recent Results** Nikolai Peskov[1]; Andrey Arzhannikov[2]; Naum Ginzburg[1]; Petr Kalinin[2]; Alexander Sergeev[1]; Stanislav Sinitsky[1]; Vasily Stepanov[2]; Vladislav Zaslavsky[1]; Evgeny Sandalov[2] [1]Institute of Applied Physics RAS, Russian Federation; [2]Budker Institute of Nuclear Physics RAS, Russian Federation	**Fr-A2-1b-2**
11:00	**NovoFEL As Source Of Powerful Ultramonochromatic Tunable Terahertz Radiation** Vitaly Kubarev; Yaroslav Getmanov Budker Institute of Nuclear Physics, Russian Federation	**Fr-A2-1b-3**

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11:15	**Long-Term Turn-by-Turn Measurements Of Electron Bunch Profiles At MHz Repetition Rates In A Storage Ring With Single-Shot Electro-Optical Sampling** Stefan Funkner; Miriam Brosi; Erik Bründermann; Michele Caselle; Michael J. Nasse; Gudrun Niehues; Lorenzo Rota; Patrik Schönfeldt; Marc Weber; Anke-Susanne Müller Karlsruhe Institute of Technology, Germany	**Fr-A2-1b-4**
11:30	**Lase Induced Fine Structure On Si By THz-FEL Irradiation** Akinori Irizawa ISIR/Osaka Univ., Japan	**Fr-A2-1b-5**
11:45	**[Keynote] Linear Detection Of Coherent Synchrotron Radiation Emitted By Single Electron Bunches Using Zero-biased InGaAs Schottky Diode Detectors.** Nart Daghestani[1]; Kai Parow-Souchon[1]; Diego Pardo[1]; Fiachra Cahill[1]; Mark Frogley[2]; Joe Langston[3]; Byron Alderman[1]; Gianfelice Cinque[2]; Peter Huggard[1] [1]STFC, United Kingdom; [2]Diamond Light Source, United Kingdom; [3]Tektronix Ltd, United Kingdom	**Fr-A2-1b-6**

10:15 - 12:15	**Fr-A2-1c MMW and THz Wave Radar and Communications II** **Chair: Guillermo Carpintero**	**Room 133+134**
10:15	**[Keynote] Turning THz Communications Into Reality: Status On Technology, Standardization And Regulation** Thomas Kuerner TU Braunschweig, Germany	**Fr-A2-1c-1**
10:45	**[Keynote] Channel Characteristics For Terahertz Wireless Communications** Jianjun Ma[1]; Rabi Shrestha[1]; Lothar Moeller[2]; Daniel Mittleman[1] [1]Brown University, United States; [2]New Jersey Institute of Technology, United States	**Fr-A2-1c-2**
11:15	**Single Channel 100 Gbit/s Link In The 300 GHz Band**	**Fr-A2-1c-3**

Vinay-Kumar Chinni[1]; Philipp Latzel[1]; Malek Zegaoui[1]; Christophe Coinon[1]; Xavier Wallart[1]; Emilien Peytavit[1]; Jean-François Lampin[1]; Klaus Engenhardt[2]; Pascal Szriftgiser[3]; Mohammed Zaknoune[1]; Guillaume Ducournau[4]
[1]IEMN, France; [2]Tektronix, Germany; [3]PhLAM, France; [4]IEMN - Univ Lille, France

11:30 **A High-Speed QPSK/16-QAM 1-m Wireless Link With A Tunable 220-260 GHz LO Carrier In SiGe HBT Technology** **Fr-A2-1c-4**

Janusz Grzyb[1]; Pedro Rodriguez-Vazquez[1]; Bernd Heinemann[2]; Ullrich Pfeiffer[1]
[1]University of Wuppertal, Germany; [2]IHP, Germany

11:45 **Considerations On Local Oscillator Isolation In A Terahertz Wireless Link Used For Future Communication Systems** **Fr-A2-1c-5**

Iulia Dan[1]; Christopher Grötsch[1]; Shoichi Shiba[2]; Ingmar Kallfass[1]
[1]University of Stuttgart, Institute for Robust Power Semiconductor Systems, Germany; [2]Fujitsu Laboratories Ltd., Japan

12:00 **Compact J-band Oscillators With 1 MW RF Output Power And Over 110 GHz Modulation Bandwidth** **Fr-A2-1c-6**

Abdullah Al-Khalidi; Jue Wang; Edward Wasige
University of Glasgow, United Kingdom

10:15 - 12:15 **Fr-A2-1a Sources, Detectors, and Receivers VIII** **Room 141+142**

Chair: Takashi Uchida

10:15 **A Novel 300-520 GHz Tripler With 50 % Bandwidth For Multi-pixel Heterodyne SIS Array Local Oscillator Signal** **Fr-A2-1a-1**

Jeanne Treuttel[1]; Choonsup Lee[2]; Jacob Kooi[3]; Imran Mehdi[4]
[1]Observatory of Paris, France; [2]Jet Priopulsion Laboratory, United States; [3]Jet Propulsion Laboratory, United States; [4]Jet Propulsion laboratory, United States

10:30 **A High Harmonic Terahertz Frequency Multiplier Based On Plasmonic Grating** **Fr-A2-1a-2**

Juan-Feng Zhu; Chao-Hai Du; Lu-Yao Bao; Zi-Chao Gao; Shi Pan; Pun-Kun Liu
Peking University, China

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10:45	**The Enhanced Third Harmonic Superradiation Of Smith Purcell Terahertz Radiation Source** Zhenhua Wu; Pengfei Hu; Min Hu; Yueheng Cao; Xiaoqiuyan Zhang; Sen Gong; Tao Zhao; Shenggang Liu University of Electronic Science and Technology of China, China	**Fr-A2-1a-3**
11:00	**A Imaging System Based On Two Bands RF Mixer And Output Multiplier In One Stage At 340GHz And 170GHz** Jiang Jun[1]; He Yue[1]; An Jianfei[1]; Miao Li[1]; Tian Yaoling[1]; Chen Peng[1]; Hao Hailong[2] [1]Microsystem and Terahertz Research Center, CAEP, China; [2]Institute of Electronic Engineering, CAEP, China	**Fr-A2-1a-4**
11:15	**(Withdrawn)**	**Fr-A2-1a-5**
11:30	**YBaCuO Hot Electron Bolometric Mixer: Evaluation Of Performance Requirements For Standoff THz Passive Detection** Romain Ladret[1]; Alain Kreisler[2]; Annick Degardin[3] [1]CentraleSupelec, France; [2]CentraleSupelec - GeePs, France; [3]Sorbonne Universite - GeePs, France	**Fr-A2-1a-6**
11:45	**[Keynote] Excitation-Wavelength Dependent Terahertz Wave Polarization Control In Laser-Induced Filament** Liangliang Zhang[1]; Cunlin Zhang[1]; Xiaomei Yu[2]; Ming Liu[3]; Yuejin Zhao[3]; Xi-Cheng Zhang[4] [1]Capital Normal University, China; [2]Peking University, China; [3]Beijing Institute of Technology, China; [4]University of Rochester, United States	**Fr-A2-1a-7**

10:15 - 12:15	**Fr-A2-R2 MM and sub-MM wave systems II** **Chair: Nick Rothbart**	**Reception Hall**
10:15	**[Keynote] Integrated Microwave-Photonics (iMWP) For Mobile Terahertz Systems** Andreas Stöhr University Duisburg-Essen, Germany	**Fr-A2-R2-1**
10:45	**[Keynote] ITER Heating And Current Drive Systems** Mark Henderson ITER Organization, France	**Fr-A2-R2-2**

11:15	**Optimizing And Experimental Investigation Of A Ka-band Relativistic Backward Wave Oscillator Operating At TM02 Mode** Dongyang Wang; Yan Teng; Shuang Li; Yanchao Shi; Yibing Cao; Guangshuai Zhang; Xiaoling Wu; Jun Sun northwest institute of nuclear technology, China	**Fr-A2-R2-3**
11:30	**The Multi-Frequency ECRH System At ASDEX Upgrade - Current Status And Plans -** Dietmar Wagner[1]; Joerg Stober[1]; Michael Kircher[1]; Fritz Leuterer[1]; Francesco Monaco[1]; Max Münich[1]; Martin Schubert[1]; Hartmut Zohm[1]; gerd Gantenbein[2]; John Jelonnek[2]; Manfred Thumm[2]; Andreas Meier[2]; Theo Scherer[2]; Dirk Strauss[2]; Walter Kasparek[3]; Carsten Lechte[3]; Burkhard Plaum[3]; Alexander Zach[3]; Alexander Litvak[4]; Gregory Denisov[4]; Alexey Chirkov[4]; Vladimir Malygin[4]; Leonid Popov[5]; Vadim Nichiporenko[5]; Vadim Myasnikov[5]; Evgeny Tai[5]; Elena Solyanova[5] [1]Max-Planck-Insitut fuer Plasmaphysik, Germany; [2]Karlsruhe Institute of Technology, Germany; [3]IGVP Stuttgart, Germany; [4]Institute of Applied Physics, RAS, Nizhny Novgorod, Russian Federation; [5]GYCOM Ltd., Russian Federation	**Fr-A2-R2-4**
11:45	**Electron Bernstein Wave Detection By Sub-Tera-Hz Scattering In The QUEST** Shin Kubo[1]; Hiroshi Idei[2]; Yoshinori Taematsu[3]; Teruo Saito[3]; Moe Iizawa[4] [1]National Institute for Fusion Science, Japan; [2]RIAM, Kyshu University, Japan; [3]FIR Center, University of Fukui, Japan; [4]Department of Advanced Energy, Japan	**Fr-A2-R2-5**
12:00	**Frequency Dependence Of Atmospheric Millimeter Wave Breakdown Plasma** Yasuhisa Oda[1]; Masayuki Takahashi[2]; Kuniyoshi Tabata[3]; Naofumi Ohnishi[2]; Kimiya Komurasaki[3]; Keishi Sakamoto[1] [1]National Institute of Quantum and Radiological Science and Technology, Japan; [2]Tohoku University, Japan; [3]the university of Tokyo, Japan	**Fr-A2-R2-6**

10:15 - 12:00	**Fr-A2-4 Ultrafast Measurements II**	**Room 432**

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Chair: Jun Takeda

10:15	**[Keynote] Ultrafast Dynamics And Control In High-temperature Superconductors** Richard Averitt UC San Diego, United States	**Fr-A2-4-1**
10:45	**[Keynote] Coherent And Incoherent Dynamics Of Charge-transfer Excitons** Philipp-Henrik Richter[1]; Markus Stein[1]; Christian Lammers[1]; Christian Fuchs[1]; Wolfgang Stolz[1]; Martin Koch[1]; Osmo Vänskä[1]; Maria J. Weseloh[1]; Mackillo Kira[2]; Stephan W. Koch[1] [1]Philipps-Universität Marburg, Germany; [2]University of Michigan, United States	**Fr-A2-4-2**
11:15	**Field Correlation Measurements Of Photon Modes With Sub-unity Photon Occupation Per Mode Inside A Fabry-Perot Cavity** Ileana-Cristina Benea-Chelmus; Francesca Fabiana Settembrini; Giacomo Scalari; Jérôme Faist Quantum Optoelectronics Group/ ETH Zuerich, Switzerland	**Fr-A2-4-3**
11:30	**Terahertz Nano-Streaking: Resolving Nearfields And Plasmon Propagation** Georg Herink Universität Bayreuth, Germany	**Fr-A2-4-4**
11:45	**Responsibility Of Plasma Current For The Generation Of The Highest Frequency Part Of Ultrabroadband Coherent Infrared Pulses With 200-THz Bandwidth** Eiichi Matsubara[1]; Masaya Nagai[2]; Masaaki Ashida[2] [1]Osaka Dental University, Japan; [2]Osaka University, Japan	**Fr-A2-4-5**
12:15 - 12:45	**Closing Remarks**	**Shirotori Hall**