ICREM 2024

International Conference on Radiation and Emission in Materials

Khon Kaen, Thailand

PROGRAM BOOK

The 6th International Conference on Radiation and Emission in Materials

27-29 November 2024 Khon Kaen, Thailand

Welcome to ICREM 2024

Scope

ICREM 2024 is dedicated to exploring the cutting-edge developments in radiation and emission phenomena across a diverse range of applications. The conference will provide a platform for intellectual exchange and collaboration, featuring discussions on topics such as

- Nuclear and Plasma Radiation
- Accelerated Particle Beams
- Fundamental of light-matter interaction
- Advanced Emitting Devices
- Photovoltaics
- Radiation Detection and Devices
- Plasma Source and Applications
- Materials Characterization
- Application of Functional Materials
- Thin Film Coating and Applications
- Radiation for Agriculture and Biology

By participating in ICREM 2024, you will have the opportunity to:

- Engage in interactive sessions, keynote lectures led by experts in the field.
- Network with peers and leading professionals from around the globe.
- Discover pioneering research and technological advancements in radiation and emission.
- Contribute to a global discussion on the future directions of material sciences.

Format and location

The ICREM is an annual event – set in the end of the calendar year - gathering local and international experts and students in the field. Teamed with the world-renowned Thai hospitality and climate, the location of the ICREM is foreseen to remain in Thailand.

Conference Venue

The conference venue is the Pullman Khon Kaen Raja Orchid Hotel in the city center of Khon Kaen. The hotel is easy to reach as it is only 8 km (15 minutes drive) from Khon Kaen International Airport.

Nearby attractions:

- Khon Kaen University (7 km)
- Singha Park Golf Course (14 km)
- Ubonrattana Dam Golf Course (50 km)
- Phuwiang National Park (80 km)

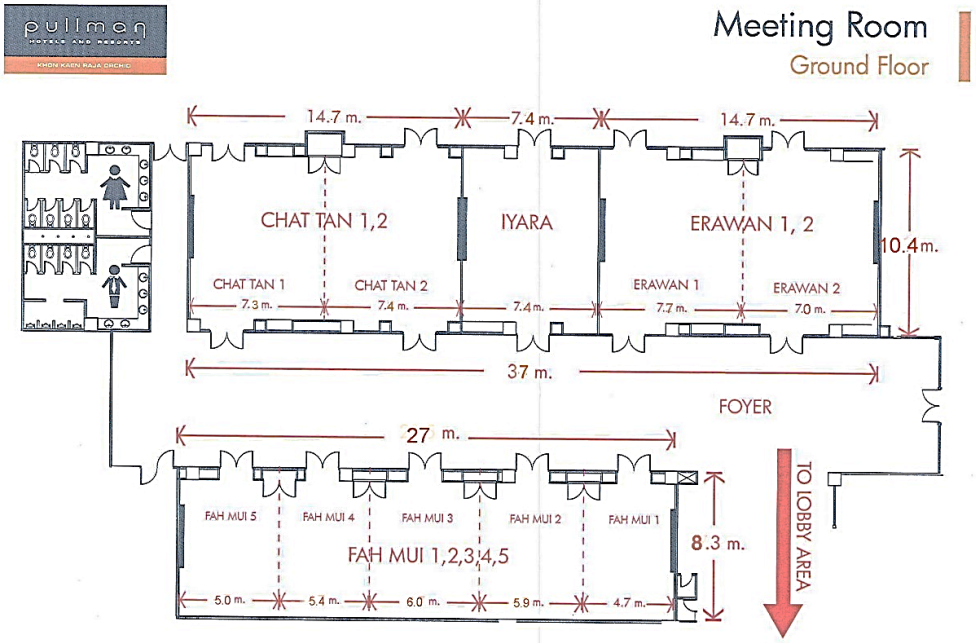
Meeting Rooms:

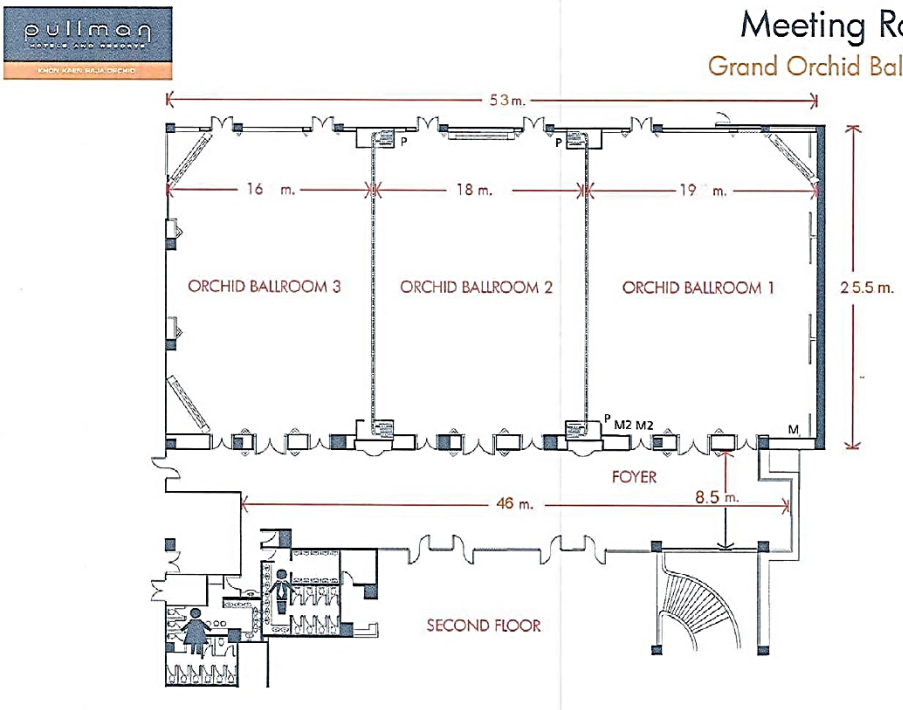
- Orchid Ballroom 2 (2nd Floor)
- Chat Than 1, 2 (Ground Floor)
- Erawan 1, 2 (Ground Floor)

Banquet:

- Sala Thai (4th Floor)

Meeting room layout





Events & Excursion




Travel Itinerary for "Happy Maha Sarakham" Tour in Kosum Phisai District, Maha Sarakham Province

Time	Activity and Location
7:30 - 9:00	Depart from Pullman Hotel, Mueang Khon Kaen District, Khon Kaen Province, to Mueang Maha Sarakham District (breakfast served on the bus)
9:00 - 9:15	Stop at Mueang Maha Sarakham District Office to pay homage to Phra Phuttha Kantara Wichai Aphisamai Thamanayok
9:15 - 10:00	Continue journey to Kosum Phisia District, Maha Sarakham Province
10:00 - 10:45	Visit Wat Klang Kosum to see the Ming Muang Buddha statue and participate in a palm leaf inscription activity
10:45 - 11:30	Explore Kaeng Tat and feed the golden-haired macaques at Kosumphi Forest Park
11:30 - 14:00	Enjoy lunch at Rai Saendee New Agriculture Farm, featuring traditional snacks and herbal drinks
14:00 - 14:45	Return to Mueang Maha Sarakham District
15:00 - 15:30	Visit Wat Phuttha Wanaram (Wat Pha Wang Nam Yen)
15:30 - 17:00	Travel back to Pullman Hotel in Khon Kaen

Acknowledgements

The ICREM 2024 conference is sponsored by

- Mahasarakham University
- Thailand Center of Excellence in Physics (ThEP)
- Hub of Talents for Plasma Technology
- Nakhon Pathom Rajabhat University
- The Materials Research Society of Thailand (MRS-Thailand)
- Naresuan University
- Synchrotron Light Research Institute (Public Organization), Thailand
- Puditec Co., Ltd.
- Astronics Technologies (Thailand) Co., Ltd.
- Union Science Trading Co., Ltd.
- Mitr Phol Sugar Co., Ltd.
- KEYENCE (Thailand) Co., Ltd.
- Dou Yee Enterprises Thailand Co., Ltd.
- Abex Technologies Co., Ltd.
- PHYWE System (Thailand) Co., Ltd.

Presentations

Invited talks:

Limited to 20 minutes, including question and answer session. Upload your presentation file on November 27, 2024 (10:00 – 16:00) at the information desk in room Iyara (Ground Floor) or before the session starts.

Contributed talks:

Limited to 15 minutes, including question and answer session. Upload your presentation file on November 27, 2024 (10:00 – 16:00) at the information desk in room Iyara (Ground Floor) or before the session starts.

Posters:

The preferred size of the poster is 80 cm × 120 cm or smaller. The poster sessions will take place on November 27, 2024 between 16:30 – 19:00. Each participant should present for 7 minutes, including questions. Please refer to the final program for the exact schedule of presentations. We kindly ask participants to be in the room Orchid Ballroom 2 for the poster presentation at least 15 minutes before the poster session starts.

The installation of the posters in the room Orchid Ballroom 2 is possible from November 26, 2024 at 18:00.

Poster awards:

The best poster presentations will be selected by the Poster Awards Committee.

Schedule

Time	Schedules	Room
November 27, 2024		
08:00 – 10:00	Registration	Orchid Ballroom 2 (2nd Floor)
09:00 – 09:45	Thai Radiation and Particles Society meeting	Erawan
09:45 – 10:00	Coffee break	Foyer
10:00 – 10:30	Opening ceremony	Orchid Ballroom 2
10:30 – 12:00	Session 1: Plenary talks	Orchid Ballroom 2
12:00 – 13:00	Lunch break	Orchid Ballroom 3 (2nd Floor)
13:00 – 14:30	Session 2: Plenary talks (cont.)	Orchid Ballroom 2
14:30 – 14:45	Coffee break	Foyer
14:45 – 16:15	Session 3: Plenary talks (cont.)	Orchid Ballroom 2
16:30 – 19:00	Poster session	Orchid Ballroom 2
19:00 – 22:00	Banquet	Sala Thai (4th Floor)
November 28, 2024		
9:00 – 10:30	Session 4, 8, 12	Orchid Ballroom 2, Chat Than, Erawan
10:30 – 10:40	Coffee break	Foyer
10:40 – 12:00	Session 5, 9, 13	Orchid Ballroom 2, Chat Than, Erawan
12:00 – 13:00	Lunch break	Orchid Ballroom 3
13:00 – 14:30	Session 6, 10, 14	Orchid Ballroom 2, Chat Than, Erawan
14:30 – 14.40	Coffee break	Foyer
14:40 – 16:15	Session 7, 11, 15	Orchid Ballroom 2, Chat Than, Erawan
16:15 – 17:00	Awards & Close Ceremony	Orchid Ballroom 2
November 29, 2024		
9:00 – 17:00	**Excursion**	

ICREM 2024 Program

Wednesday 27th November 2024		
Time	**Schedule**	**Room**
08:00 – 10:00	Registration	Orchid Ballroom 2
09:00 – 09:45	Thai Radiation and Particles Society meeting	Erawan
10:00 – 10:30	Opening ceremony	Orchid Ballroom 2
Session 1: Plenary talks Chaired by Dheerawan Boonyawan (CMU, Thailand) and Jakrapong Kaewkhao (NPRU, Thailand)		
10:30 – 11:15	(INS01) Mechanism of Ionizing Radiation and Nonradiative Recombination in Wide-band-gap Semiconductors *Su-Huai Wei, Eastern Institute of Technology, China*	Orchid Ballroom 2
11:15 – 12:00	(INS02) Converting A Thermionic RF Gun to Photo Cathode One Employing Yb Fiber Laser for Pre-bunched Free Electron Laser *Hiroyuki Hama, Tohoku University, Japan*	Orchid Ballroom 2
12:00 – 13:00	Lunch	Orchid Ballroom 3
Session 2: Plenary talks Chaired by Wisanu Pecharapa (KMUTL, Thailand) and Kittikhun Prakrajang (MJU, Thailand)		
13:00 – 13:45	(INS03) A Combination of Advanced Oxidation Processes to Tackle the Degradation of Organic Matter *Gregor Primc, Jozef Stefan Institute, Slovenia*	Orchid Ballroom 2
13:45 – 14:30	(INS04) Plasma Enhanced Biorefinery Processes Using Non-Equilibrium Atmospheric-Pressure Plasmas *Masafumi Ito, Meijo University, Japan*	Orchid Ballroom 2
14:30 – 14:45	Coffee Break	Foyer

Wednesday 27th November 2024		
Time	**Schedule**	**Room**
Session 3: Plenary talks Chaired by Christian Morawe (The European Synchrotron, France) and Tipaporn Patniboon (MSU, Thailand)		
14:45 – 15:30	(INS05) Plasma Application to Soil *Gyungsoon Park, Kwangwoon University, Korea*	Orchid Ballroom 2
15:30 – 16:15	(INS19) Recent development on glass scintillator: Application to synchrotron X-rays imaging *Jakrapong Kaewkhao, Nakhon Pathom Rajabhat University, Thailand*	Orchid Ballroom 2
16:30 – 19:00	Poster Session and Exhibition	Orchid Ballroom 2
19:00 – 22:00	Banquet	Sala Thai (4th Floor)

Oral Presentation

Thursday 28th November 2024		
Time	Schedule	Room
Session 4: Plasma Source and Applications Chaired by Phitsanu Poolcharuansin (MSU, Thailand) and Paveena Laokul (MSU, Thailand)		
9:00 – 9:20	(INS08_PS) Nonthermal bioplasma properties and its applications for dentistry: A review update intend *Phenphichar Wanachantararak, Chiang Mai University, Thailand*	Orchid Ballroom 2
9:20 – 9:40	(INS09_PS) Recent Developments of Cold Plasma Jet by a Dielectric Barrier Discharge *Duc Ba Nguyen, Duy Tan University, Vietnam*	Orchid Ballroom 2
9:40 – 10:00	(INS10_PS) Simulations of an Artificially Structured Boundary for Charged Particle Confinement *Wattanun Hongtrakul, Mahasarakham University, Thailand*	Orchid Ballroom 2
10:00 – 10:15	(O01_PS) Enhancing Plasma Cancer Therapy: Nightingale® Air Plasma-Activated Ringer's Lactate with Cannabidiol Nanoemulsion for Targeted Lung Cancer Cytotoxicity *Pipath Poramapijitwat, Chiang Mai University, Thailand*	Orchid Ballroom 2
10:15 – 10:30	(O02_PS) Plasma-Exposed Media to Skin Discoloration in the Nile Tilapia (*Oreochromis niloticus*) *Sukitar Krasaesen, Chiang Mai University, Thailand*	Orchid Ballroom 2
10:30 – 10:40	Coffee Break	Foyer
Session 5: Plasma Source and Applications Chaired by NitisakPasaja (MSU, Thailand) and Viruntachar Kruefu (MJU, Thailand)		
10:40 – 11:00	(INS11_PS) Development of DC magnetically well-type cathode and thermal plasma torch for treatment of hazardous wastes *R. Taleh, Plasmas and electromagnetic wave research laboratory, Walailak University, Thailand*	Orchid Ballroom 2

Thursday 28th November 2024		
Time	Schedule	Room
11:00 – 11:20	(INS12_PS) The Effect of Cold Atmospheric Plasma on The Surface Properties of Gelatin Films *Siti Khadijah Zaaba, Universiti Malaysia Perlis, Malaysia*	Orchid Ballroom 2
11:20 – 11:35	(O03_PS) Propagation Enhancement of Protocorms in Orchid (*Vanda coerulea* Griff. ex Lindl.) by Plasma-activated Media *Prangnapat Silapasert, Chiang Mai University, Thailand*	Orchid Ballroom 2
11:35 – 11:50	(O04_PS) Wear Resistance Improvement of Cold Work Tool Steels using Low-Temperature Plasma Nitriding *Kodchaporn Chinnarat, Mahasarakham University, Thailand*	Orchid Ballroom 2
11:50 – 12:05	(O05_PS) Utilizing Plasma-Activated Media to Sterilize Sweet Potato (*Ipomoea batatas* L.) Explants for Culture Preparation *Thanachot Tunkham, Chiang Mai University, Thailand*	Orchid Ballroom 2
12:05 – 13:00	Lunch	Orchid Ballroom 3
Session 6: Thin Film Coating and Applications Chaired by Mati Horprathum (NECTEC) and Kittikhun Prakrajang (MJU, Thailand)		
13:00 – 13:20	(INS13_TF) Evaluation of carbon bonding changes in diamond-like carbon films using synchrotron radiation *Hiroki Akasaka, Tokyo Institute of Technology, Japan*	Orchid Ballroom 2
13:20 – 13:40	(INS14_TF) Relationship between sp^2 structure and surface functionalities in DLC films for biological response *Yasuharu Ohgoe, Tokyo Denki University, Japan*	Orchid Ballroom 2
13:40 – 14:00	(INS15_TF) Diamond-Like Carbon (DLC) Films: Challenges and Applications *Anthika Lakhonchai, Synchrotron Light Research Institute (Public Organization), Thailand*	Orchid Ballroom 2
14:00 – 14:15	(O06_TF) Influence of Pulsed Acetylene Flow on Process Parameters in Reactive DC Magnetron Sputtering of Titanium Targets *Konlawat Sukhumphanpipatthana, Mahasarakham University, Thailand*	Orchid Ballroom 2

Thursday 28th November 2024		
Time	Schedule	Room
14:15 – 14:30	(O07_TF) Energy distributions of plasma ions in floating high power impulse magnetron sputtering *Nanthapat Chanapai, Mahasarakham University, Thailand*	Orchid Ballroom 2
14:30 – 14:40	Coffee Break	Foyer
Session 7: Thin Film Coating and Applications Chaired by Phenphichar Wanachantararak (CMU, Thailand) and Wattanun Hongtrakul (MSU, Thailand)		
14:40 – 15:00	(INS16_TF) X-ray mirror figure correction using differential deposition *Christian Morawe, The European Synchrotron, Grenoble, France*	Orchid Ballroom 2
15:00 – 15:20	(INS17_TF) Innovative Optical Nanostructure Thin Films for Advanced Sensors with AI-Based Data Analytics *Mati Horprathum, National Electronics and Computer Technology Center, Thailand*	Orchid Ballroom 2
15:20 – 15:40	(INS18_TF) Physical properties of binary and ternary semiconductor thin films for optoelectronic and solar cell applications *Auttasit Tubtimtae, Kasetsart University, Kamphaeng Saen Campus, Thailand*	Orchid Ballroom 2
15:40 – 15:55	(O08_TF) Preparation of multilayer amorphous carbon films by using pulsed filtered cathodic vacuum arc and linear anode layer ion source technique *Nitisak Pasaja, Maharasakham University, Thailand*	Orchid Ballroom 2
16:15 – 17:00	Awards & Close Ceremony	Orchid Ballroom 2

Thursday 28th November 2024		
Time	Schedule	Room
Session 8: Advanced Emitting Devices, Photovoltaics, Application of Functional Materials Chaired by Siriyaporn Sangaroon (MSU, Thailand) and Kamonporn Panngom (MJU, Thailand)		
9:00 – 9:20	(INS20_PV) Boosting Performance in Carbon-based Perovskite Solar Cells through Advanced Charge Transporting Layers *Pipat Ruankham, Chiang Mai University, Thailand*	Chat Than
9:20 – 9:40	(INS21_FM) Enhancement in photocatalytic performance of $BiVO_4$ by rare-earth doping via photon up-conversion process and phase transformation *Wisanu Pecharapa, King Mongkut's Institute of Technology Ladkrabang, Thailand*	Chat Than
9:40 – 10:00	(INS27_FM) Electrospinning Nanofibers and Their Applications for Energy Storage *Somchai Sonsupap, King Mongkut's Institute of Technology Ladkrabang, Thailand*	Chat Than
10:00 – 10:15	(O09_FM) Hydrophobic-to-Hydrophillic Conversion of Graphitic Carbon Nitride by Gamma-Irradiation *Tosapol Maluangnont, King Mongkut's Institute of Technology Ladkrabang, Thailand*	Chat Than
10:15 – 10:30	(O10_FM) Development of High-Performance $LiFePO_4$/Graphene for Lithium-Ion Batteries *Phurida Kokmat, Thammasat University, Thailand*	Chat Than
10:30 – 10:40	Coffee Break	Foyer
Session 9: Accelerated Particle Beams Chaired by Auttasit Tubtimtae (KU, Thailand) and Kridsanaphong Limtragool (MSU, Thailand)		
10:40 – 11:00	(INS22_APB) Study of space plasma radiation and space weather effects on plasma environments near Earth during the passages of high-speed solar wind *Thana Yeeram, Mahasarakham University, Thailand*	Chat Than
11:00 – 11:15	(O11_APB) Development of Electron Beam Irradiation Station for FLASH Radiotherapy Experiment at Chiang Mai University *Sakhorn Rimjaem, Chiang Mai University, Thailand*	Chat Than

Thursday 28th November 2024		
Time	Schedule	Room
11:15 – 11:30	(O12_APB) Simulation of Electron Transportation through Different Oxygen Concentration of Water Material by Using GEANT4-DNA toolkit *Surawadee Khammee, Chiang Mai University, Thailand*	Chat Than
11:30 – 11:45	(O13_APB) Development of Mid-Infrared Free-Electron Laser System at PCELL *Supasin Sukara, Chiang Mai University, Thailand*	Chat Than
12:00 – 13:00	Lunch	Orchid Ballroom 3
Session 10: Materials Characterization Chaired by Theerachai Bongkarn (NU, Thailand) and Aurawan Rittidech (MSU, Thailand)		
13:00 – 13:20	(INS23_MC) Microwave Plasma Catalysis for Greenhouse Gases Reforming: Role of metal-load catalysts *Dheerawan Boonyawan, Chiang Mai University, Thailand*	Chat Than
13:20 – 13:40	(INS24_MC) Synchrotron Soft X-ray Technique for Diamond-Like Carbon Film: Challenges and Applications *Sarayut Tunmee, Synchrotron Light Research Institute (Public Organization), Thailand*	Chat Than
13:40 – 14:00	(INS25_MC) A sequential O_2/Ar plasma etching for power output enhancement of triboelectric nanogenerator *Viyada Harnchana, Khon Kaen University, Thailand*	Chat Than
14:00 – 14:15	(O14_MC) Design and Development of Dysprosium-Doped Phospho-Tellurite Glass for White LED and Laser Applications *Wiraphat Thanyaphirak, Nakhon Pathom Rajabhat University, Thailand*	Chat Than
14:15 – 14:30	(O15_MC) Effective calibration materials from Tb^{3+}/Eu^{3+} co-activated aluminum sodium calcium borate glasses for luminescence spectrometer *Nawarut Jarucha, Nakhon Pathom Rajabhat University, Thailand*	Chat Than
14:30 – 14:40	Coffee Break	Foyer

Thursday 28th November 2024		
Time	Schedule	Room
Session 11: Materials Characterization Chaired by Viyada Harnchana (KKU, Thailand) and Kwanruthai Wongsaprom (MSU, Thailand)		
14:40 – 15:00	(INS26_MC) Harnessing Piezoelectricity: Advanced PVDF Composite Smart Strap for Enhanced Wrist Motion Detection *Dae Joon Kang, Sungkyunkwan University, Republic of Korea*	Chat Than
15:00 – 15.20	(INS07_MC) 3D PDMS for Mechanoresponsive Scatterers *Seok Woo Jeon, Korea University, Korea*	Chat Than
15:20 – 15:35	(O16_MC) Semiclassical Boltzmann Theory of Electrical Transport in Twisted Bilayer Graphene *Phicharn Phommajak, Mahasarakham University, Thailand*	Chat Than
15:35 – 15:50	(O17_MC) Arrowroot starch, Corn starch, and Polyvinylpyrrolidone (PVP) as capping agents in the synthesis of silver nanowires (AgNWs) for use as the flexible transparent conductive electrodes (FTCE) of the alternating current electroluminescence (AC-EL) devices *Suteeporn Kidtang, Khon Kaen University, Thailand*	Chat Than
15:50 – 16:05	(O25_RAB) Evaluation in Phenotype and Genotype of Gamma Radiated Chili Pepper Using Molecular Techniques *Orapin Saritnum, Maejo University, Chiangmai, Thailand*	Chat Than
16:15 – 17:00	Awards & Close Ceremony	Orchid Ballroom 2

Thursday 28th November 2024		
Time	Schedule	Room
Session 12: Plasma Innovation and Applications in Agriculture, Bioscience & Healthcare Chaired by Choncharoen Sawangrat (CMU, Thailand) and Pradoong Suanpoot (MJU, Thailand)		
9:00 – 9:20	(STEP01) Plasma-driven syntheses, control and functionalization of three-dimensional carbon nanomaterials *Hiroki Kondo, Kyushu University, Japan*	Erawan
9:20 – 9:40	(STEP02) Generation of pulsed discharges over water surface and their applications for environment and agriculture *Katsuyuki Takahashi, Iwate University, Japan*	Erawan
9:40 – 10:00	(STEP03) Recognition of plasma rice and its multi-omics analysis *Feng Huang, China Agricultural University, China*	Erawan
10:00 – 10:20	(STEP04) Harnessing Non-Thermal Plasma Technology for Enhanced Water Environmental Protection *Peerapong Pornwongthong, King Mongkut's University of Technology North Bangkok, Thailand*	Erawan
10:20 – 10:35	Coffee Break	Foyer
Session 13: Plasma Innovation and Applications in Agriculture, Bioscience & Healthcare (cont.) Chaired by Pradoong Suanpoot (MJU, Thailand) and Peerapong Pornwongthong (KMUTNB)		
10:35 – 10:55	(STEP08) Innovative Optimization of Plasma-Activated Water for Advanced Microbial Control in Agricultural Processing *Choncharoen Sawangrat, Chiang Mai University, Thailand*	Erawan
10:55 – 11:15	(STEP05) Application of Nonthermal Plasma in Agriculture: Enhancing Seed Germination, Growth, and Bioactive Compound Production *Ihn Han, Kwanwoon University, Korea*	Erawan

Thursday 28th November 2024		
Time	Schedule	Room
11:15 – 11:35	(STEP06) Effect of Low-Pressure Cold Plasma Treatment on Black Afara and Caeruleum Seeds for Germination *Pradoong Suanpoot, Maejo University (Phrae Campus), Thailand*	Erawan
11:35 – 11:55	(STEP07) Effects of Atmospheric Pressure Air Plasma Synthesized Dinitrogen Pentoxide on Plant Function Control *Toshiro Kaneko, Tohoku University, Japan*	Erawan
12:00 – 13:00	Lunch	Orchid Ballroom 3
Session 14: Nuclear and Plasma Radiation Chaired by Artit Chingsungnoen (MSU, Thailand) and Teerawong Laosuwan (MSU, Thailand)		
13:00 – 13:20	(INS28_NPR) Compact Neutron emission spectrometer in magnetic confinement fusion *Siriyaporn Sangaroon, Mahasarakham University, Thailand*	Erawan
13:20 – 13:40	(INS29_NPR) Charting of Radiative-Emission and Radiation-Interaction Data from the First Year Operation of Thailand Tokamak-1 *Somsak Dangtip, Thailand Institute of Nuclear Technology, Thailand*	Erawan
13:40 – 13:55	(O18_NPR) Conceptual design of electrode biasing system in Thailand Tokamak-1 *Poramate Chunpang, Mahasarakham University, Thailand*	Erawan
13:55 – 14:10	(O19_NPR) Soft X-ray Measurement in Thailand Tokamak-1 Utilizing Newly Designed Soft X-ray Imaging System *Sawarin Buakham, Mahasarakham University, Thailand*	Erawan
14:10 – 14:25	(O20_NPR) Investigation of Runaway Electron Behavior in Thailand Tokamak-1 via Bremsstrahlung Emission Using MCNP Simulation *Arreerat Kunkanha, Mahasarakham University, Thailand*	Erawan
14:25 – 14:40	(O21_NPR) Improving Neutron and Gamma-Ray Detection Accuracy: Characterization of EJ-301 Scintillation Detector Performance at the Fast Neutron Laboratory *Chawidpol Sangthong, Mahasarakham University, Thailand*	Erawan

Thursday 28th November 2024		
Time	Schedule	Room
14:40 – 14:45	Coffee Break	Foyer
Session 15: Nuclear and Plasma Radiation, Fundamental of light-matter interaction, Radiation for Agriculture and Biology Chaired by Teerasak Kamwanna (KKU, Thailand) and Thanayut Kaewmaraya (KKU, Thailand)		
14:45 – 15:05	(INS30_RAB) Simulating the biological effects of charged particles in space with small ion accelerators *Harry J. Whitlow, Uppsala University, Sweden*	Erawan
15:05 – 15:25	(INS31_RAB) Nitrogen-Fixed Fertilizer via Air Plasma: Effects on Sugarcane Phenotype *Kazunori Koga, Kyushu University, Japan*	Erawan
15:25 – 15:40	(O22_NPR) Sensor-Driven Machine Learning Approaches for Identifying Plasma Position in Thailand Tokamak-1 *Shitiphat Soysangwarn, Satriwitthaya 2 School, Thailand*	Erawan
15:40 – 15:55	(O23_RAB) Optimization of Anthocyanin Induction in Butterfly Pea Using Full Factorial Design and Plasma Techniques *Norrapon Vichiansan, Chiang Mai University, Thailand*	Erawan
15:55 – 16:10	(O24_FLI) Review of NO_3 UV Absorption Spectroscopy and Simulation of Reactive Species Diffusion in Atmospheric Pressure Plasma *Nattwut Palee, Chiang Mai University, Thailand*	Erawan
16:15 – 17:00	Awards & Close Ceremony	Orchid Ballroom 2

Poster Presentation (Orchid Ballroom 2)

Poster ID	Title
P01_FM	Adhesion properties of diamond-like carbon film and silicon interlayer deposited on DC53 cold wok tool steels *Suchanan Sutthirak and Pittayarat Kongjun, Mahasarakham University, Thailand*
P02_FM	Preparation of potassium tungsten bronze particles by ball milling process for infrared and thermal shielding applications *Phonlawee Pinthong, King Mongkut's Institute of Technology Ladkrabang, Thailand*
P03_FM	Fabrication of composite carbon nanofibers with silver particles for high-quality membranes for antimicrobial water filtration *Tanayt Sinprachim, King Mongkut's Institute of Technology Ladkrabang, Thailand*
P04_MC	Impact of Gd_2O_3 addition on the radiation shielding properties of zinc barium borate glasses and the absorbed dose in the MRCP-AM phantom by Monte Carlo simulation *Chalermpon Mutuwong et al., Nakhon Pathom Rajabhat University, Thailand*
P05_MC	Investigation of the Structural, Thermal, Dielectric, and Physical Properties of Li_2O-B_2O_3-TeO_2 Oxide Glass was added with transition metals for Thermoelectric Applications *Kitipun Boonin and Peerapong Yamchumporn, Nakhon Pathom Rajabhat University, Thailand*
P06_MC	Enhanced Luminescence and Scintillation Properties of Tb^{3+}ion -Doped Tellurite Glasses for Potential X-Ray Screen Applications *Patarawagee Yasaka, Nakhon Pathom Rajabhat University, Thailand*
P07_MC	Analysis of Ce^{3+} obtained borophosphate glasses with different alkali oxide additives for scintillation applications *Natthakridta Chanthima, Nakhon Pathom Rajabhat University, Thailand*
P08_MC	Characterization of $Ni_{0.475}Zn_{0.475}Li_{0.025}Al_{0.025}Fe_2O_4$ doped ($Ba_{0.91}Ca_{0.09}Ti_{0.916}Sn_{0.084}O_3$-0.1wt% ZnO-0.1wt% MnO_2) multiferroic composites ceramics prepared via the solid-state combustion technique *Theerachai Bongkarn, Naresuan University, Thailand*
P09_MC	A Novel Tb^{3+}/Dy^{3+} codoped fluoro-silicophosphate scintillating glass with energy transfer mechanism for solid state lighting and X-ray detecting materials *Piyachat Meejitpaisan et al., Nakhon Pathom Rajabhat University, Thailand*

Poster ID	Title
P10_MC	Preparation and Photocatalytic Activity of ZnO Nanoparticles *Luriya Chokbandit and Suchanya Ruangngam, Mahasarakham University, Thailand*
P11_MC	Effect of Diatomite on Porous Structure and Plant Growth-Promoting Fungi Immobilization in Calcined Clay Pellets *Bhoowadol Thatawong, Naresuan University, Thailand*
P12_MC	Enhanced dielectric, ferroelectric, and ferromagnetic properties of $Ba_{0.97}Ca_{0.03}Ti_{0.94}Sn_{0.06}O_3$-$Mn_{0.85}Zn_{0.15}Ni_{0.15}Fe_2O_4$ multiferroic ceramic composite *Widchaya Somsri, Naresuan University, Thailand*
P13_MC	Physical and optical properties of tungsten doped ZnO particles prepared via co-precipitation method *Wisanu Pecharapa, King Mongkut's Institute of Technology Ladkrabang, Thailand*
P14_MC	Polyvinylpyrrolidone/chitosan/nanocellulose Composite Films for Soluble Material Applications *Natchapon Rattanaanothaikul, King Mongkut's Institute of Technology Ladkrabang, Thailand*
P15_MC	Reflux-Hydrothermal Synthesis and Comprehensive Characterization of rGO-SnO_2/SnS_2 Nanohybrids *Sirorat Moollor, Maejo University, Thailand*
P16_MC	Hydrothermal Synthesis of Ultrafine n-n SnO_2/SnS_2 Structure: Effect of Reaction Time on Physical Properties *Suwimol Chuchit, Maejo University, Thailand*
P17_MC	Influences of Gamma Radiation and Sputtering Power on the Optical and Electrical Properties of Indium Tin Oxide Films *Nalutporn Phiboon, Thammasat University, Thailand*
P18_PA	Strategic policies for advancing emerging low-carbon technologies: The case of plasma solutions for decarbonizing challenging sectors *Kaja Primc, Institute for Economic Research, Ljublijana, Slovenia*
P19_PA	Effect of multiple cylinder-type DBD plasma gas on soil microorganisms and plant growth *Wirinthip Ketya et al., Kwangwoon University, Korea*

Poster ID	Title
P20_PA	Electrical Property of Silk Sheet after Plasma Treatment *Panthip Kingkaewcharoenchai, Mahasarakham University, Thailand*
P21_PA	Improvement of Antioxidant Activity of Sericin by Plasma Treatment *Chanya Sonpanya, Mahasarakham University, Thailand*
P22_APB	The effects of focused 1-MeV proton beam irradiation on linear low density polyethylene film *Kunpisit Kosumsupamala, Shibaura Institute of Technology, Japan*
P23_RD	Charged particles and scintillation properties in CaF_2(Eu) scintillators using Compton coincidence technique *Wuttichai Chaiphaksa, Supakit Yonphan, and Jakrapong Kaewkhao, Nakhon Pathom Rajabhat University, Thailand*
P24_RD	Impact of firing conditions on phase formation, microstructure, dielectric and ferroelectric characteristics of BCZT-$Li_{0.3}Y_{0.3}$ ceramics prepared using the solid-state combustion technique *Tawat Suriwong and Theerachai Bongkarn, Naresuan University, Thailand*
P25_RD	The Synthesis of Radiochromic Film using Polyvinyl Alcohol Solution Casting with Photosensitive Compounds *Rapeepan Luejai, Maejo University, Thailand*
P26_RD	Graphene-wrapped iron/PVDF composites as X-ray radiation shield *Kanokphon Laprak, Akkawat Ruammaitree, Thammasat University, Thailand*
P27_RAB	The possibility study of 18F-FAPI and 18F-NOTA-Octreotide synthesis using a multipurpose synthesizer CFN-MPS100 for cancer diagnosis via molecular imaging *Tarinee Boonyawan, ChiangMai University, Thailand*
P28_RAB	Effects of Gamma Radiation and Plasma Treatment on Growth, Morphological Characters, and Agronomic Traits of Jerusalem Artichoke at Seedling and Mature Stages *Ratchanee Puttha, Maejo University, Thailand*
P29_RAB	Effectiveness of Microwave irradiation in Reducing Microbial Load on *Wolffia globosa* *Preuk Choosung, Maejo University, Thailand*

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P30_PS	The Potential of Plasma Activated Water for Sustainable Agriculture *Worawalan Sonhom et al., Srinakharinwirot University, Thailand*
P31_TF	Influence of DLC film thickness in gas barrier performance deposited on polyethylene terephthalate sheets using PECVD method *Ukit Rittihong and Sarayut Tunmee, Synchrotron Light Research Institute (Public Organization), Thailand*
P32_TF	Discharge Current Behavior in Reactive High Power Impulse Magnetron Sputtering during Acetylene Flow Ramping *Jirakit Chitkaew, Mahasarakham University, Thailand*
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P35_TF	Development of High-Precision Multilayer Coating System for Synchrotron Beamline Optics *Phakkhananan Pakawanit, Synchrotron Light Research Institute (Public Organization), Suranaree, Thailand*
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Faculty of Science, Mahasarakham University,
Kham Riang Subdistrict, Kantarawichai District, Mahasarakham, Thailand 44150