



2nd International Conference on Radiation and Emission in Materials

Bangkok, Thailand
December 15-18, 2019



Thailand Institute of Nuclear Technology



Plasma & Beam Physics Research Facility



Mahidol University
Wisdom of the Land

“ Call for Abstracts “

All authors are cordially invited to participate in the ICREM 2019 conference. Please visit the website for more details.

icrem2019.science.cmu.ac.th

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Organizer

Thailand Institute of Nuclear Technology

Co-organizers

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Toemsak Sriksirin, Mahidol University

Conference Secretariat

Nopporn Poolyarat, Thailand Institute of Nuclear Technology; *email: noppornp@tint.or.th*

Important Dates

Abstract Submission Deadline **September 15, 2019**

Notification of Abstract Acceptance **October 1, 2019**

Early Bird Registration Deadline **October 30, 2019**

Publication

The papers will be published in the nominated SCI journals.

Registration fees

Early registration	: US\$ 350
Late registration	: US\$ 500
Student registration	: US\$ 250

Events & Excursion

- Conference Banquet
- BKK Culture – Academy Evening



Venue & Travel

Mahidol University Salaya Campus; the venue is easily accessible by taxi from the downtown Bangkok and its airports.



Scope

The International Conference on Radiation and Emission in Materials (ICREM) covers the radiation and emission phenomena in its natural combination, in the range from accelerated ionizing particles to THz electromagnetic radiation, building on the similarity of the basic principles and multi-functional applications. The mission of the ICREM is to bring new perspectives to the field of the radiation phenomena in advanced materials by providing a forum for researchers and industrialists for exchanging data and ideas along the following specific tracks:

- Accelerated particle beams
- Fundamentals of light-matter interaction
- Radiation and emission at IR and THz
- Nuclear radiation for smart materials
- Advanced emitting devices
- Plasma Technology
- Photovoltaics

The focus is on advances in fundamental understanding as well as its exploitation in modern instrumentations (scientific, technological, medical, etc) and technologies/devices.

Confirmed invited talks

Accelerated particle beams

Prof Roger Webb, University of Surrey, UK

Quantum technology with deterministic single ion implantation

Prof Jonatan Slotte, Aalto University, Finland

Vacancy defects studied with ion and positron beams

Prof Haiyang Lu, Peking University, China

Positron injection and acceleration in laser driven wakefield

Prof Hiroyuki Hama, Tohoku University, Japan

Superconducting electron accelerators for various applications

Fundamentals of light-matter interaction

Prof Michael Reshchikov, Virginia CU, USA

Thermal quenching mechanisms for defect-related luminescence

Prof Su-Huai Wei, CSRC, Beijing, China

Origin of the negative photoconductivity in MAPbBr₃ and related octahedral semiconductors

Prof Chi Chung Ling, Hong Kong University, Hong Kong

Opto-magnetic properties of ZnO based materials

Prof Elzbieta Guziewicz, Institute of Physics, Poland

Optics of the shallow states in ZnO grown in O- or Zn-rich conditions

Prof Chih Chung Yang, National Taiwan University, Taiwan

Surface plasmon coupled light-emitting devices

Lasers and LEDs

Prof Motoaki Iwaya, Meijo University, Nagoya, Japan

Towards current injection UV-B lasers using high quality relaxed

AlGaN and polarization doping method

Prof Inhwon Lee, Korea University, Seoul, Korea

Highly flexible bio-compatible planar lighting source based on

InGaN/GaN nanorod light-emitting diodes

Prof Eun-Soo Nam, ETRI, Daejeon, Korea

Crack-free AlGaN epi-layers on GaN templates for UV-Laser diodes

Prof J.J. Huang, National Taiwan University, Taiwan

TBC

Plasma Technology

Prof Hiroshi Fujioka, University of Tokyo, Japan

High quality nitride films and devices with pulsed sputtering

Profs Osamu Oda and Masaru Hori, Nagoya U, Japan

Novel epitaxy for nitride semiconductors using plasma technology

PV and PEC

Prof Deren Yang, Zhejiang University, Hangzhou, China

Seed-assisted multicrystalline Si for higher efficiency solar cells

Dr Xinyu Zhang, Jinko Solar, Haining, China

Ring-effects in crystalline Si solar cells: understanding and control

Prof Patrick L  v  que, University of Strasbourg, France

Organic photovoltaics; from lab-scale devices towards large-scale module production

Prof Avner Rothschild, Technion, Haifa, Israel

Mobile and non-mobile optically excited states in complex materials

IR and THz

Prof Shengqiang Zhou, HZDR, Rossendorf, Germany

Infrared photoresponse from hyperdoped Si by ion implantation

Prof Arnel Salvador, University of Philippines, Manila

THz spectra of tensile and compressive strained lifted-off GaAs films

Radiation detection and devices

Dr David Rogers, Nanovation, Ch  teaufort, France

Radiation hard oxide materials for new space photonics applications

Prof Jiandong Ye, Nanjing University, Nanjing, China

Solar-blind photodetectors based on Ga₂O₃ materials

Prof Henry Radamson, Inst of Microelectronics, Beijing, China

Challenges of nano-scale transistor processing

Dr Yu Song, Microsystems and THz Center, Chengdu, China

United model of dose rate dependences for the radiation-induced defect accumulation in bipolar transistors

Exhibition & Sponsorship

Exhibitors and sponsors from industries and institutions are invited to explore the exciting opportunities provided with the participation in the ICREM2019. Please contact the conference secretariat.



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