



Himpunan Optika Indonesia (HOI)
Indonesian Optical Society (InOS)

Poster Presentations

14th International Symposium on Modern Optics and Its Applications (ISMOA) 2023

- Poster Presentation 01: ***Fabrication and application of thin film lithium niobate microdisk based on focused ion beam direct writing***
Xiaona YE (State Key Laboratory of Advanced Optical Communication Systems and Networks, School of Physics and Astronomy, Shanghai Jiao Tong University, China)
- Poster Presentation 02: ***Application of Rice Husk as a Carbon Source for Substitution of Sensitizer and Counter Electrode Components in Dye-Sensitized Solar Cell***
Tika PARAMITHA (Department of Chemical Engineering and Centre of Excellence for Electrical Energy Storage Technology, Sebelas Maret University, Indonesia)
- Poster Presentation 03: ***Investigation of Nickel Oxide/Perovskite Interfacial for Inverted Perovskite Solar Cell with MAPbI₃ as the Absorber Layer***
Ahmad Muhajer A. AZIZ (Faculty of Electronic and Computer Engineering, Universiti Teknikal Malaysia Melaka (UTeM), Malaysia)
- Poster Presentation 04: ***Investigation of Zinc Cobaltite (ZnCO₂O₄) as A Hole Transport Layer (HTL) for Perovskite Solar Cell using OghmaNano Software***
Iskandar D. RUMMAJA (Physics of Magnetism and Photonics Research Division, Faculty of Mathematics and Natural Sciences, Institut Teknologi Bandung, Bandung, Indonesia)
- Poster Presentation 05: ***Preparation of GO/RGO/TiO₂ Composite Films as Counter Electrode in Dye Synthesis Solar Cells***
Fauziah Siti AJIZAH (Institut Teknologi Bandung, Indonesia)
- Poster Presentation 06: ***A Brief Study of ZnO/PEDOT:PSS Counter Electrode in DSSC Based on Solid Electrolyte YSZ***
Anissa Chairani Alfin NADHIRA (Department of Physics, Faculty of Mathematics and Natural Sciences, Universitas Negeri Malang, Indonesia)
- Poster Presentation 07: ***Visible Light trapping in dye-sensitized solar cell with Vanadium-doped ZnO as back reflector layer***



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Lia YULIANTINI (Research Centre for Electronics, National Research and Innovation Agency Republic of Indonesia (BRIN), Indonesia)

Poster Presentation 08: ***Enhancement Efficiency of ZnO-based Dye-Sensitized Solar Cell using TiO₂:ZnO Composite as Photoanode Layer***

Euis Siti NURAZIZAH (Department of Physics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran)

Poster Presentation 09: ***Detection of Envelope Glycoprotein Domain III (EDIII) Based on Surface-Enhanced Raman Scattering for Dengue Diagnosis***

Aldo Novaznursyah COSTRADA (Research Group of Instrumentation & Computational Physics, Bandung Institute of Technology, Indonesia)

Poster Presentation 10: ***Fabrication of Low-Cost SERS Substrate for Explosives Detection***

Syifa H. TSANIYA (Instrumentation and Computational Physics, Institut Teknologi Bandung, Indonesia)

Poster Presentation 11: ***Classification of Animal Fats Using Principal Component Analysis on Raman Spectra Data for Halal Authentication***

Annida AMANI (Faculty of Mathematics and Natural Sciences, Institut Teknologi Bandung, Indonesia)

Poster Presentation 12: ***Nb₂CTx Niobium-Based MXenes as a Saturable Absorber for Passively Generating Q-Switched Fiber Laser at 2 μ m***

LIP Zhan Hong (School of Engineering, UOW Malaysia KDU University College, Malaysia)

Poster Presentation 13: ***Numerical Study of the Early Detection of Tuberculosis with High Sensitivity Plasmonic Sensor***

Khaikal RAMADHAN (Department of Physics, Faculty of Mathematics and Natural Sciences, Institut Teknologi Bandung, Indonesia)

Poster Presentation 14: ***Surface Plasmon Resonance of Green Synthesized Fe₃O₄/rGO Composite Nanoparticles for Biosensor Application***

Muthia Fauzia MAULIDA (Department of Physics, Universitas Gadjah Mada, Yogyakarta, Indonesia)



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- Poster Presentation 15: ***Tuning Optical Properties of Au Thin Film Using Electric Field for Surface Plasmon Resonance-based Biosensor***
Muhammad RISWAN (Department of Physics, Universitas Gadjah Mada, Yogyakarta, Indonesia)
- Poster Presentation 16: ***On SPR-based configurations for Strong Coupling Observation: Kretschmann vs Otto***
Muhammad Asif Ahmad KHUSHAINI (Institute of Microengineering and Nanoelectronics, Universiti Kebangsaan Malaysia, Malaysia.)
- Poster Presentation 17: ***Localized Surface Plasmon Resonance Effect of 3-Mercaptopropionic capped on Silver Nanoparticles for Sensing Probe Application***
Setiya RAHAYU (Physics of Magnetism and Photonics Research Division, Bandung Institute of Technology, Indonesia.)
- Poster Presentation 18: ***Development of ZnO-Based Optical Sensor for Profenofos Detection***
Natasya SALSABIILA (Faculty of Electrical and Electronic Engineering, Universiti Tun Hussein Onn Malaysia, Malaysia)
- Poster Presentation 19: ***Synthesis of Gold Nanoclusters Stabilized by Human Serum Albumin and Its Application as Glucose Detection***
Boy Marsaputra PANJAITAN (Research Center for Advanced Materials, National Research and Innovation Agency (BRIN), Indonesia)
- Poster Presentation 20: ***Effect of Polyaniline Concentration on TiO₂ Synthesis for Cork Ball Photocatalytic Application in Degrading River Water under UV Light***
Annisa Miftakhul JANNAH (Department of Physics, Faculty of Mathematics and Natural Sciences, Universitas Negeri Malang, Malang, Indonesia)
- Poster Presentation 21: ***Green-Synthesis of Fe₃O₄/TiO₂ Nanocomposite Utilizing Moringa Oleifera Extract for Photodegradation of Methylene Blue Dye***
Rizal Ahmad FAUZI (Department of Physics, Faculty of Science and Technology, UIN Sunan Gunung Djati, Bandung, Indonesia)
- Poster Presentation 22: ***Charge Transport Properties of Single Crystal Perovskite Synthesized by Anti-solvent Vapor-Assisted Crystallization (AVC)***
Ayi BAHTIAR (Department of Physics, Universitas Padjadjaran, Indonesia)



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- Poster Presentation 23: ***Optical Properties of Carbon Dots Synthesized from Seaweeds by Facile Microwave-assisted Techniques***
Muhandis SHIDDIQ (Research Center for Photonics, National Research and Innovation Agency (BRIN), Indonesia)
- Poster Presentation 24: ***Spray Coated of ZnO particles on ePA Nylon-Carbon Fiber Substrate and Evaluation of its Photocatalytic Activity***
Muhammad Fahmi HASYIM (Physics Study Programee, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia)
- Poster Presentation 25: ***Reducing of Beads in the Morphology of TiO₂ Nanofibers in the Electrospinning Process with High Applied Voltage***
Amalia Rohmah FAJARIAH (Department of Physics, Universitas Padjadjaran, Indonesia)
- Poster Presentation 26: ***Comparative Study of Photocatalytic Performance between TiO₂/ZnO Film and TiO₂/ZnO Particulate***
Inovasari ISLAMI (Magister Physics Study Programme, Universitas Padjadjaran, Indonesia)
- Poster Presentation 27: ***Effect of rGO/TiO₂ Composition on Optical Properties of Methylene Blue and Its Degradation under UV Irradiation***
Tri Komala JUNITA (Department of Physics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, West Java, Indonesia)
- Poster Presentation 28: ***Electrodeposition of Zn-Doped Cu₂O-Cu/Ni and Its Application for Methylene Blue Photodegradation***
Mega Gladiani SUTRISNO (The Centre for Science Innovation, Department of Chemistry, Faculty of Mathematics and Natural Sciences, Universitas Negeri Jakarta, Indonesia)
- Poster Presentation 29: ***Scattering Characteristics of Nanoparticle Chain and Cluster***
Deni RAMDANI (Physics of Magnetism and Photonics Research Division, Faculty of Mathematics and Natural Sciences, Institut Teknologi Bandung, Indonesia)
- Poster Presentation 30: ***Optimization of Semiconductor-Based SRR Metamaterials as Sensors***
Yan SOERBAKTI (Department of Physics, Universitas Riau, Indonesia)



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- Poster Presentation 31: ***Low-index Dielectric Meta-lattices with Tunable Narrow Resonance***
Suhandoko D. ISRO (Physics of Magnetism and Photonics Research Division, Faculty of Mathematics and Natural Sciences, Institut Teknologi Bandung, Indonesia)
- Poster Presentation 32: ***Probing Optical Properties of a Λ -Type Three-Level System Quantum Dot: Theoretical Study***
Bintoro S. NUGROHO (Physics Department, Universitas Tanjungpura, Indonesia)
- Poster Presentation 33: ***First-principle investigation of doped ZnO and its effect to the U-dependent optical and electronic properties***
Salwa Anindhita KHANSA (Department of Chemical Engineering, UPN "Veteran" Yogyakarta, Indonesia)
- Poster Presentation 34: ***Optical properties of three phases of beryllia as calculated by DFT method with three different functionals***
Qoriana ZULINDRA (Department of Chemical Engineering, UPN "Veteran" Yogyakarta, Indonesia)
- Poster Presentation 35: ***Anisotropic Optical Properties of Bilayer Rhenium Disulfide (ReS₂) from First-principles Calculations***
Finantius RAHANGIAR (Departement of Physics, Gadjah Mada University, Indonesia)
- Poster Presentation 36: ***Suppressing the Self-Reversal Effect on the Resonance Lines of Various Elements in UV Laser-Induced Breakdown Spectroscopy using Air Spark-Assisted Excitation***
Marvin Yonathan HADIYANTO (Department of Electrical Engineering, Krida Wacana Christian University, Indonesia)
- Poster Presentation 37: ***Characteristics of Li I 610.4 nm emission line in laser-induced plasma at reduced pressure***
Ivan TANRA (Department of Electrical Engineering, Krida Wacana Christian University, Indonesia)
- Poster Presentation 38: ***Laser-Induced Periodic Nanoripples on Gallium Nitride Using Near-infrared Ultrashort Pulsed Laser***



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Nursidik YULIANTO (Research Center for Photonics, National Research and Innovation Agency (BRIN), Indonesia)

- Poster Presentation 39: ***Fast Fabrication of Superhydrophobic Copper Alloy Fabricated by Commercial Fiber Laser-1062 nm and Stability of Superhydrophobic***
M. B. HARYONO (School of Materials Science and Innovation, Faculty of Science, Mahidol University, Thailand)
- Poster Presentation 40: ***Multi-wavelength Brillouin Erbium Fiber Laser***
Hasanain Naser A. ALI (Department of Electrical, Electronic and Systems Engineering, Faculty of Engineering and Built Environment, Universiti Kebangsaan Malaysia, Malaysia)
- Poster Presentation 41: ***Q-Switched Erbium-Doped Fiber Laser with Titanium Silicon Carbide-Based Saturable Absorber***
Nurul Athirah M. A. GHAFAR (School of Electrical Engineering, College of Engineering, Universiti Teknologi MARA, Malaysia)
- Poster Presentation 42: ***Q-Switched Erbium-Doped Fiber Lasers with Aluminium (III) Oxide Based Saturable Absorber***
Nur Farhanah ZULKIPLI (Department of Engineering and Built Environment, Tunku Abdul Rahman University of Management and Technology Penang Branch, Malaysia)
- Poster Presentation 43: ***Q-switched Pulse Generation with Molybdenum Disulfide Saturable Absorber***
Rosmalini Ab KADIR (School of Electrical Engineering, College of Engineering, Universiti Teknologi MARA, Malaysia)
- Poster Presentation 44: ***Q-switched Erbium Ytterbium co-doped Fiber Using Multimode Interference Effect***
Mingzhi CHI (Department of Electrical Engineering, University of Malaya, Malaysia)
- Poster Presentation 45: ***Q-Switched Fiber Laser Generation with Molybdenum Titanium Aluminum Carbide (Mo₂TiAlC₂) Film as Saturable Absorber***
Anas A. LATIFF (Photonics Engineering Research Group (PERG), Fakulti Kejuruteraan Elektronik dan Kejuruteraan Komputer (FKEKK), Universiti Teknikal Malaysia Melaka (UTeM), Malaysia)



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- Poster Presentation 46: ***Electrical current sensor based on optical fiber on magnetic fluid (OFMF)***
Siti N. Mohd ASSERI (Department of Physics, International Islamic University Malaysia, Malaysia)
- Poster Presentation 47: ***D-shaped Fiber Optic Biosensor for Peptide Concentration Detection***
Siti Nurul F. AZAHAN (IIUM Photonics and Quantum Centre (iPQC), Kulliyah of Science, International Islamic University Malaysia, Malaysia)
- Poster Presentation 48: ***Improved Sensitivity of Vaporized Acetone Gas Sensing using ZnO Nanorod Coated with TiO₂ on A Multimode Fiber***
Norazlina SAIDIN (Department of Electrical and Computer Engineering, International Islamic University Malaysia, Malaysia)
- Poster Presentation 49: ***Microfiber Ring Resonator for Optical Liquid Sensing***
Yaoxian YANG (Department of Electrical Engineering, University of Malaya, Malaysia)
- Poster Presentation 50: ***Soliton Pulse Generation with MoS₂ Saturable Absorber***
Nurul Izzah S. WADI (School of Electrical Engineering, College of Engineering, Universiti Teknologi MARA, Malaysia)