Dr. rer. nat. Ir. Ruri Agung Wahyuono, S.T., M.T.
Deputy Head of Department for Finance, Assets, and Human Resources
Department of Engineering Physics

Junior Work Group Leader
Laboratory of Advanced Functional Materials
Department of Engineering Physics
Faculty of Industrial Technology and System Engineering
Institut Teknologi Sepuluh Nopember (ITS)
Jl. Arif Rahman Hakim, Campus ITS Keputih, Sukolilo, 60111 Surabaya, Indonesia.e-mail: r_agung_w@ep.its.ac.id (ITS), ruri.tf014@gmail.com
phone: +6231 5947188, website: *https://enable-its.com*

Research group:

"*Currently leads a junior working group focusing on the engineering and development of functional materials for energy, environment, and biomedical application, covering material selection & characterization, design, and fabrication, system development and optimization.*"
Research keywords: *Material for energy and environmental application, biosensor, thin film electrodes for solar cells, and photoelectrochemical cells, photocatalysis, material characterization, renewable energy, and sustainability.*

Research ID

ORCID-ID: 0000-0002-6937-9907
Scopus ID: 51162062600 (*h-index*: 14)
SINTA ID: 6017411

University Education

2022 : Insinyur (Ir.), Institut Teknologi Sepuluh Nopember (ITS), Surabaya.

2020 : Doctor *rerum naturalium* (Dr. *rer. nat*), Institute of Physical Chemistry and Abbe School of Photonics, Friedrich Schiller University Jena. Academic grade: *Magna Cum Laude* working with Prof. Dr. Benjamin Dietzek, FRSC.

2013 : International Joint Education Program, Applied Chemistry, Kumamoto University, Japan.

2013 : Master of Engineering (M.Eng), Engineering Physics, Institut Teknologi Sepuluh Nopember (ITS), Surabaya with Academic grade: 3.94/4.00 under supervision of Dr.-Ing. Doty Dewi Risanti and Prof. Dr. Hirotaka Ihara, FRSC

2012 : Bachelor of Engineering (B.Eng), Institut Teknologi Sepuluh Nopember (ITS), Surabaya with Academic grade: 3.97/4.00 under supervision of Dr. Gunawan Nugroho and Dr. Ridho Hantoro

Working Experience (*selected*) *and Civilian Service*

06/2021 – 12/2022 : Engineering consultant at PT. ITS Tekno Sains for engineering assessment of High-Power Transmission Line Tower Anomaly of PT. PLN

08/2022 – 11/2022 : Energy Audit at PLTU Banten 2 Labuan OMU

06/2022 – 10/2022 : Energy Audit and Energy Efficiency Program at Operational Facility PT. Kangean Energy Indonesia Ltd.

04/2021 – 05/2022 : Steam System and Piping Distribution: Audit and Performance Assessment PT. VALE Indonesia

08/2020 – 12/2021 : Engineering consultant at PT. ITS Tekno Sains for structural health assessment for Building power plant and Boilet House of PT. Wilmar Nabati Indonesia

10/2018 – 12/2019 : Researcher at Leibniz-IPHT Jena for DFG (Deutsche Forschungsgeminschaft) project "CATALIGHT"

01/2017 – 03/2020 : Researcher at Leibniz-IPHT Jena for TAB (Thüringer Aufbaubank) Project *"FEST" – Flexible und Effiziente Solarzellen auf Textilien* and *"ESTI" – Energiewandlung und –speicherung mittels Textil-integrierter, edelmetallfreier, flexibler Farbstoff-sensibilisierter Solarzellen in Kombination mit Polymerbatterien*.

01/2016 – present : Government official of Republic of Indonesia under the Ministry of Research, Technology and Higher Education of Republic of Indonesia

Selected Publications (*selected* from 49 journal articles and 20 conference papers)

Suyanto, P.A. Darwito, **R.A. Wahyuono**, M.S. Arifin, B. Sudarmanta, 'Design of Regenerative Braking System for Electric Motorcylce Based on Supercapacitor with Fuzzy PID', Int. J. Automotive Technol., 24(1) (2023) 187.

Y. Mauliza, K. Indriawati, **R.A. Wahyuono**, 'Fuzzy Logic Control-Based Interleaved Boost Converter for Proton Exchange Membrane Fuel Cell System', IEEE Proc. 2022 International Conference on Electrical Engineering, Computer and Information Technology, (2022) 82.

R.A. Wahyuono, A.A. Putra, D. Sawitri, 'Metal Oxide (ZnO, TiO_2) Lazer Affects Sensitivity of Multisample Colorimetric Detection in Microfluidic Paper-based Biosensor', IEEE Proc. International Conference on Advanced Mechatronics, Intelligent Manufacture and Industrial Automation, (2021) 272.

A. Luqman, H. Nugrahapraja, **R.A. Wahyuono**, I. Islami, M.H. Haekal,Y. Fardiansyah, B.Q. Putri, F.I, Amalludin, E.A. Rofiqa, F. Goetz, A.T. Wibowo, 'Microplastic Contamination in Human Stools, Foods, and Drinking Water Associated with Indonesian Coastal Population', Environments, 8(12) (2021) 138.

A.T. Wibowo, H. Nugrahapraja, **R.A. Wahyuono**, I. Islami, M.H. Haekal, Y. Fardiansyah, P.W.W. Sugiyo, Y.K. Putro, F.N. Fauzia, H. Santoso, F. Goetz, B.V. Tangahu, A. Luqman, 'Microplastic Contamination in the Human gastrointestinal Tract and Daily Consumables Associated with an Indonesian Farming Community', Sustainability, 13(22) (2021) 12840.

L. Ernawati, **R.A. Wahyuono**, A. Halim, R. Noorain, W. Widiyastuti, R.T. Dewi, T. Enomae, 'Hierarchically 3-D Porous Structure of Silk Fibroin-Based Biocomposite Adsorbent for Water Pollutant Removal', Environments, 8(11) (2021) 127.

I.M. Arsana, **R.A. Wahyuono**, 'Design, Performance, and Optimization of the Wire and Tube Heat Exchanger (Chapter) in Heat Exchanger', IntechOpen (2021) 189.

B. Seidler, **R.A. Wahyuono,** P. Wintergerst, J. Ahner, M.D. Hager, S. Rau, 'Red-light sensitized hole-conducting polymer for energy conversion', Phys. Chem. Chem. Phys., 23(33) (2021) 18026.

D. Rachmat, R. Syarifah, I. Paramudita, N. Fadhilah, M.H. Haekal, **R.A. Wahyuono**, R. Hidayat, R. Zakaria, V. Suendo, D.D. Risanti, 'Au-doped Mesoporous SiO2 Scattering Layer Enhances Light Harvesting in Quasi Solid-State Dye-Sensitized Solar Cells', J. King Saud Univ. Eng. Sci., (2021) in press.

R.A. Wahyuono, M. Braumueller, S. Bold, S. Amthor, D. Nauroozi, J. Plentz, M. Waechtler, S. Rau, B. Dietzek, 'Localizing the initial excitation – A case study on NiO photocathodes using Ruthenium dipyridophenazine complexes as sensitizers', Spectrochimica Acta A: Molecular and Biomolecular Spectroscopy, 252 (2021) 119507.

I.M. Arsana, L.C. Muhimmah, G. Nugroho, **R.A. Wahyuono**, 'Enhanced Heat Transfer Effectiveness using Low Concentration SiO2-TiO2 Core-Shell Nanofluid in a Water/Ethylene Glycol Mixture', J. Eng. Phys. Thermophys., 94(2) (2021) 423.

N. Yulianto, A.D. Refino, A. Syring, N. Majid, S. Mariana, P. Schnell, **R.A. Wahyuono**, K. Triyana, F. Meierhofer, W. Daum, F.F. Abdi, T. Voss, H.S. Wasisto, A. Waag, 'Wafer-scale transfer route for top-down III-nitride nanowire LED arrays based on the femtosecond laser lift-off technique', Microsyst. Nanoeng., 7(1) (2021) 32.

Active Membership

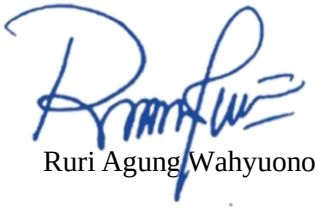
Material Research Society (MRS) – Indonesia

International Solar Energy Society (ISES)

American Societyof Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE)

Professional Certification by BNSP (National Council of Professional Certification)
Industrial Energy Auditor
General Occupational Safety and Health
Book Editor (Substantive and Layout)

Surabaya, June 23, 2023



Ruri Agung Wahyuono