



Witri Wahyu Lestari

East and South-East Asia and the Pacific

Organometallic and co-ordination chemistry

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Dr. Witri Wahyu Lestari Lestari's research on advanced materials has many important applications for sustainable development. Her research in Metal-Organic Frameworks (MOFs), for example, has enabled improvements in their use in fluorescence and as catalysts in energy conversion, methane and hydrogen storage, as well as in CO₂ capture to reduce the greenhouse effect. Her new research has combined MOFs with natural materials such as zeolite and graphite as well as organic polymers to form enhanced composite materials that are more useful for environmental protection, energy storage and drug delivery.

Dr. Lestari is a junior inorganic chemistry lecturer at Sebelas Maret University, Surakarta, Central Java-Indonesia. She earned her MSc (in 2008) and PhD (in 2014) in chemistry at the University of Leipzig in Germany, focusing on organometallic and co-ordination chemistry supported by DAAD Germany and the FFTF Schlumberger Foundation. Her research focuses on the synthesis of MOFs and their potential applications as new materials that can act as molecular magnets, as heterogeneous catalysts for gas separation and storage, and for ion exchange and as drug delivery systems.

After returning to Indonesia, Dr. Lestari now continues to conduct research in organometallic chemistry, MOFs, and related porous materials such as zeolite and active carbon with the goal of furthering sustainable development. Her work is conducted in collaboration with experts from several universities and research institutes in Indonesia as well as the University of Leipzig and the Technical University of Dresden, Germany. In 2015 Witri was appointed as coordinator of the research group Porous Materials for Sustainability, and also as coordinator of the International Collaboration/ERASMUS+ mobility program for staff and student exchanges at her faculty, in partnership with Leipzig University, Germany. In 2014 she received the L'Oréal-UNESCO Award for Women in Science at the national level in material science. In 2016 she was also selected as a finalist in the ASEAN-U.S. Science Prize for Women on the topic of sustainable energy development.

Dr. Lestari and her group try to optimize the combination of their knowledge, local abundant natural resources and support from stakeholders in research they hope is useful for humanity. Their works have been disseminated at national and international forums and published in renowned national and international journals, including journals published by Elsevier, RSC, Wiley and other reputable publishers.

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As a chemist, the award from OWSD and Elsevier Foundation is like an additional catalyst or a driving force for me to be more productive in work, conducting research, and educating and inspiring my students. Providing benefits to society and humanity are also main goals.

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