

JEAI PLASTIC: PLastic in the Aquatic environment: Sources, Transport, Ingestion, Contamination

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Participants: 8 researchers from HCMUT (VNU-HCM), IET (VAST), INPC (VAST), IMER (VAST)

Duration: 2019-2021

Objective: The JEAI PLASTIC is a collaboration between Ho Chi Minh University of Technology (HCMUT, VNU-HCM) and the French National Research Institute for Sustainable Development (IRD). It is an interdisciplinary team that aims to create a group of researchers interested in the sources, transport, ingestion and contamination of microplastics in the river-estuary-coastal zone continuum.

Work packages: this project is structured around three work packages:

1. Contamination assessment, fate and transport of microplastics in three Vietnamese river basins (Saigon – Dong Nai River, Mekong River, and Red River) characterized by specific plastic emission activities.
2. Microplastics risk assessment to aquatic organisms and humans.
3. Adapting water treatment technologies to reduce microplastics inputs to the aquatic environment.

Our students:

- Master students: 6 (3 graduated)
- Undergraduate students: 7 (2 graduated)
- Student research projects: 5 groups with 28 students (1st – 3rd year)

Publications:

Strady, E., Kieu-Le, T.-C., Gasperi, J., & Tassin, B. (2020). *Temporal dynamic of anthropogenic fibers in a tropical river-estuarine system*. Environmental Pollution, 259, 113897. DOI:10.1016/j.envpol.2019.113897

Bui, X.-T., Vo, T.-D.-H., Nguyen, P.-T., Nguyen, V.-T., Dao, T.-S., & Nguyen, P.-D. (2020). *Microplastics pollution in wastewater: Characteristics, occurrence and removal*



technologies. Environmental Technology & Innovation,
101013. DOI:10.1016/j.eti.2020.101013

Lahens, L., Strady, E., Kieu-Le, T.-C., Dris, R., Boukerma, K., Rinnert, E., ... Tassin, B. (2018). *Macroplastic and microplastic contamination assessment of a tropical river (Saigon River, Vietnam) transversed by a developing megacity*. *Environmental Pollution*, 236, 661–671. DOI:10.1016/j.envpol.2018.02.005

T.T.N. Sang, T.Q. Viet, L.T.M. Tam, T.Q. Thinh, E. Strady, Kieu-Le T.C. (2019) *Extraction of the anthropogenic fibers in the atmospheric fallout in Ho Chi Minh City*, Tạp chí Khoa học - Khoa học Tự nhiên và Công nghệ, Tập 16, Số 3 (2019), 17-24, 2019

Thuong Quoc Thinh, Truong Tran Nguyen Sang, Tran Quoc Viet, Le Thi Minh Tam, Nguyen Phuoc Dan, Emilie Strady, Kieu Le Thuy Chung (2020) *Preliminary assessment on the microplastic contamination in the atmospheric fallout in the Phuoc Hiep landfill, Cu Chi, Ho Chi Minh city*, *Vietnam Journal of Science, Technology and Engineering* (accepted)