



# TUAN FAUZAN TUAN OMAR

Lecturer  
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## QUALIFICATIONS

- Doctor of Philosophy (Environmental Quality and Conservation), Universiti Putra Malaysia
- Master of Science (Instrumental Organic Analysis), Universiti Sains Malaysia
- Bachelor of Science (Analytical and Environmental Chemistry), Kolej Universiti Sains dan Teknologi Malaysia

## FIELD OF RESEARCH

- Analytical and environmental chemistry
- Marine pollution
- Environmental and human health risk assessment

## RESEARCH INTEREST

My research interest is on the analytical and environmental chemistry specializing on the analytical method development using high end instrumentation techniques such as Gas Chromatography Mass Spectrometry, Liquid Chromatography Mass Spectrometry, Inductively Coupled Plasma Mass Spectrometry and various other instrumentation techniques. I also have a wide experience in analyzing contaminants in food and environmental matrices. My latest research is on the assessment of distribution and fate of emerging organic contaminants in the marine and coastal ecosystem and the possible risks to the ecological as well as human health.

## RESEARCH PROJECTS

- Derivation of Predicted No Effect Concentration (PNEC) using Species Sensitivity Distribution (SSD) Technique for Risk Assessment of Endocrine Disrupting Compounds (EDCs) in Tropical Ecosystem

## EXPERT LINKAGES

- **DEPARTMENT OF ENVIRONMENT, FACULTY OF FORESTRY AND ENVIRONMENT, UPM**
- **OCEAN POLLUTION AND ECOTOXICOLOGY RESEARCH GROUP**

## PROFFESIONAL MEMBERSHIP

- Institut Kimia Malaysia (IKM)
- Persatuan Sains Analisis Malaysia (ANALIS)

## GRANTS

Project : Derivation of Predicted No Effect Concentration (PNEC) using Species Sensitivity Distribution (SSD) Technique for Risk Assessment of Endocrine Disrupting Compounds (EDCs) in Tropical Ecosystem

Position : Project leader

Grant Name : Talent And Publication Enhancement Research Grant (TAPE-RG)

Status : Active

Amount : RM 20 000.00

Project : Risk assessment for selected estrogenic contaminants in Malaysian riverine and estuarine ecosystem: Case study of Langat and Klang River Basin

Position : Co-researcher

Grant Name : Geran Inisiatif Putra Siswazah (GP-IPS)

Status : Completed

Amount : RM 20 000.00

Project : Pathway and Risk Assessment of Endocrine Disrupting Compounds (EDCs) in Riverine Ecosystems of Langat and Klang River Basins, Malaysia

Position : Co-researcher

Grant Name : UNU-GIST Joint Program for Sustainability

Status : Completed

Amount : RM 72 000.00

Project Title : MARE: Marine Coastal and Delta Sustainability for Southeast Asia

Position : Co-researcher

Status : Active

Amount : EUR 80, 0000.00 (~ RM 392, 526.55)

## PUBLICATIONS

### Journal Article

1. Omar, T.F.T., Aris, A.Z., Yusoff, F.M, 2021. Multiclass analysis of emerging organic contaminants in tropical marine biota using improved QuEChERS extraction followed by LC MS/MS, **Microchemical Journal**, 164, 106063.
2. Ali, H.R., Ariffin, M.M., Omar, T.F.T., ...Shazili, N.A.M., Bachok, Z. 2021. Antifouling paint biocides (Irgarol 1051 and diuron) in the selected ports of Peninsular Malaysia: occurrence, seasonal variation, and ecological risk assessment, **Environmental Science and Pollution Research**, doi: 10.1007/s11356-021-14424-1.
3. Ismail, N. A. H., Aris, A. Z., Wee, S. Y., Nasir, H. M., Razak, M. R., Kamarulzaman, N. H., & Omar, T. F. T. 2021. Occurrence and distribution of endocrine-disrupting chemicals in mariculture fish and the human health implications. **Food Chemistry**, 345, 128806.
4. Ong, M.C, Adiana, G., R.M. Amin, Bhubalan K., Jennie L., Omar, T.F.T .... & Wahid, M.A, 2021. Positive and Negative Effects of COVID-19 Pandemic on Aquatic Environment: A Review, **Sains Malaysiana** 50(4): 1187-1198.
5. Abdollah, N.A., Ahmad, A. & Omar, T.F.T. 2020. Synthesis and characterization of molecular imprinted polymer for the determination of carbonate ion. **Biointerface Research in Applied Chemistry**. Vol 11(3): 10620-10627. [Scopus Indexed].
6. T.F.T. Omar, A.Z. Aris, F.M. Yusoff, S., Mustafa, 2019. Occurrence and level of emerging organic contaminant in fish and mollusk from Klang River estuary, Malaysia and assessment on human health risk, **Environmental Pollution**, 248, 763-773.
7. T.F.T. Omar, A.Z. Aris, F.M. Yusoff, S., Mustafa, 2019. Risk assessment of pharmaceutically active compounds (PhACs) in the Klang River estuary, Malaysia, **Environmental Geochemistry and Health**, 1-13.
8. N.S. Jusoh, T.F.T. Omar, A. Ahmad, 2019. Thiol modified amperometric immunosensor for benzo[a]pyrene detection in surface river water samples, **Malaysian Journal of Analytical Sciences**, 23 (5), 849 – 860.
9. T.F.T. Omar, A.Z. Aris, F.M. Yusoff, S., Mustafa, 2018. Occurrence, distribution, and sources of emerging organic contaminants in tropical coastal sediment of anthropogenically impacted Klang River estuary, Malaysia, **Marine Pollution Bulletin**, 131, 284-293.
10. T.F.T. Omar, A.Z. Aris, F.M. Yusoff, S., Mustafa, 2017. An improved SPE-LC MS/MS method for multi-class endocrine disrupting compound (EDC) determination in tropical estuarine sediment, **Talanta**, 173, 51-59.
11. T.F.T. Omar, A. Ahmad, A.Z. Aris, F.M. Yusoff, 2016. Endocrine disrupting compounds (EDCs) in environmental matrices: Review of analytical strategies for pharmaceuticals, estrogenic hormones, and alkylphenol compounds, **Trend. Anal. Chem.**, 85, 241–259.
12. Wee, S. Y., Omar, T.F.T., Aris, A. Z., Lee, Y., 2016. Surface water organophosphorus pesticides concentration and distribution in the Langat River, Selangor, Malaysia, **Exposure and Health**, 8, 497-511.

13. Tuan Omar, T.F, Kuntom, A., Latiff, A.A, 2014. Assessment of dioxins and dioxin-like polychlorinated biphenyls in the palm oil supply chains, **Quality Assurance and Safety of Crops and Foods**, 6(4), 369-376.
14. Tuan Omar, T.F, Kuntom, A., Latiff, A.A, 2013. Dioxin/furan level in the Malaysian oil palm environment, **Sains Malaysiana**, 42(5), 571-578.
15. Tuan Omar, T.F., Kuntom A., Bahari, M.M, 2012. Food Safety Challenges in the Malaysian Oil Palm Industry, **Oil Palm Bulletin**, 64, 41-52, ISSN 1511-7634.
16. Tuan Omar, T.M.F, Kuntom, A., Osman, R., Halim, N., Yeoh, C.B., 2010. Implementation of MS ISO/IEC 17025 at Pesticide Residue Laboratory, Food Safety Group, MPOB, **Palm Oil Development**, 53, 15-18, ISSN 0127-3329.

### Conference Publication

1. T.F.T Omar; A.Z Aris; F.M. Yusoff (2021, September). AN IMPROVED METHOD FOR MULTICLASS EMERGING ORGANIC CONTAMINANTS IN TROPICAL MARINE BIOTA USING QUECHERS EXTRACTION FOLLOWED BY LC MS/MS. 33<sup>rd</sup> *International Conference of Analytical Sciences (SKAM 2021)*, 13 – 15 September 2021, Universiti Malaya, page 71.
2. T.F.T Omar, Y.L. Yeong, M.C. Ong and S. Suratman (2020, August). INVESTIGATION OF EMERGING ORGANIC CONTAMINANTS (EOCS) IN THE SURFACE WATER OF REDANG ISLAND, TERENGGANU, MALAYSIA., 2<sup>nd</sup> *Tropical Ocean and Marine Science International Symposium (TOMSIS 2020)*, 23 – 24 November 2020, Universiti Malaysia Terengganu, page 74.
3. T.F.T Omar, A.Z Aris, F.M. Yusoff and S. Mustafa (2019, August). MULTICLASS EMERGING ORGANIC POLLUTION AND ASSOCIATED RISK IN THE KLANG RIVER ESTUARY, MALAYSIA, 32<sup>nd</sup> *International Conference of Analytical Sciences (SKAM 2019)*, 14 – 16 August 2019, Thistle Port Dickson, Malaysia, page 100.

### Other Outputs

[Thesis, manuscript, books, reports, etc.]

1. Tuan Mohamad Fauzan Tuan Omar, 2019. Multiclass emerging organic pollution and associated risks in the Klang River estuary in Malaysia, PhD Thesis, Universiti Putra Malaysia.
2. Tuan Mohamad Fauzan Tuan Omar, 2012. Assessment of dioxins/furans and dioxin-like PCBs contamination in the palm oil supply chains, MSc. Thesis, Universiti Sains Malaysia.
3. Tuan Mohamad Fauzan Tuan Omar, 2006. Adsorption of metsulfuron-methyl on selected five Malaysian agricultural soils, BSc. Thesis, Kolej Universiti Sains dan Teknologi Malaysia.
4. Tuan Omar, T.F, Halim N., Othman, J., Kuntom, A., 2014. Method for Determination of Polychlorinated di benzo-p-dioxins (dioxins)/polychlorinated dibenzo furans (furans) in palm oil products. MPOB TS No. 140. MPOB Information Series. ISSN 1511-7971. June 2014.

### LINKS

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