Research Profile

Dr. Velan Raman
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Education Background

Doctor of Philosophy in Inorganic Chemistry (Feb 2023)
University Putra Malaysia (UPM)
Synthesis and Characterisation of Novel 1,2,4-triazole Containing Manganese-based Metal Organic Frameworks as Emerging Electrodes for Supercapattery Device

Bachelor of Science (Honours) Major in Petroleum Chemistry (Oct 2018)
University Putra Malaysia (UPM)

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Researchgate
https://www.researchgate.net/profile/Velan-Raman

TEACHING

Undergraduate
(University Putra Malaysia)
CHM3302: Inorganic Chemistry II
CHY3302: Group Theory & Solid Structure

Postgraduate
(University Putra Malaysia)
CHM5003: Analysis in Chemistry I
CHM5004: Analysis in Chemistry II

RESEARCH INTEREST

Reticular Chemistry (MOFs synthesis),Inorganic Chemistry, Material Science, Electrochemistry

SCIENCE COMMUNICATION

- ✓ **3rd runner-up, National Level,** 3-Minute Thesis (3MT) competition 2022
  Title : My Manganese UFOs (Unexpected Framework Outcome)
- ✓ **Winner**, UPM 3-Minute Thesis (3MT) competition 2022
  Title : The Beauty In The Manganese-frameworks
- ✓ **Participant**, Fame Lab Talking Science 2019, Central Heats
  Title : Covalent Organic Frameworks, The New Wonders In Chemistry

CURRENT RESEARCH PROSPECTS

1. Novel synthesis of manganese MOFs using pyrazole/benzotriazole linkers for electrochemical application.
2. Catalytic studies of UPMOF-4, UPMOF-5 and UPMOF-6 on the adsorption of dyes such as methyl blue and methyl orange.

PUBLICATIONS

1. **Raman, V**., et al., *Facile synthesis and characterisations of novel Mn-1,2,4-triazole framework (UPMOF-4) as a promising electrode material for supercapattery device*. Journal of Energy Storage, 2023. 62**. (Q1**)
2. **Raman, V**., et al., *1,2,4-Triazole (Htrz) functionalised 2D-manganese-organic framework (UPMOF-5) as a battery-type electrode for supercapattery*. Journal of Electroanalytical Chemistry, 2023. 929**.** (**Q1**)
3. Mohamed Ibrahim Mohamed Tahir, Nazhirah Muhammad Nasri, Enis Nadia Md Yusof, **Velan Raman**, Thahira BSA Ravoof, Mohd Basyaruddin Abdul Rahman, Abdul Halim Abdullah., *Investigation of New Isostructural ZIFs for Potential Adsorption of Crystal Violet.* Inorganic chemistry Communication. (**Q1**)

COLLABORATORS

Local

1. Research Centre for Crystalline Materials at School of Medical and Life Sciences, Sunway University, ChM. Dr Yee Seng Tan (*Single-Crystal Analysis of Novel Frameworks*)

International

1. Materials Science Institute of Madrid Spanish National Research Council, Dr Felipe Gandara (*Synthesis of MOFs and Topological Analysis*)