



### Dr.V.Preethi

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**Total Experience in Years: 13**

**Research areas:** Recovery of hydrogen from industrial wastewater, Biogas production from solid waste, Biofuel production using algae, CO<sub>2</sub> adsorption using amine reactor, Pollutant degradation using biofilters and photocatalytic process

### Recent publications:

1. SankarSekar, Sejoon Lee, **PreethiVijayarengan\***, Kalirajan KM, Santhakumar T, SaravananSekar, Sudha S, Upcycling of Wastewater via Effective Photocatalytic Hydrogen Production Using MnO<sub>2</sub> Nanoparticles-Decorated Activated Carbon Nanoflakes, *Nanomaterials* 10, 2020, 1610.
2. SankarSekar, Sejoon Lee, **PreethiVijayarengan\***, Biomass Activated Carbon-Decorated Spherical  $\beta$ -Ni(OH)<sub>2</sub> Nanoparticles for Enhanced Hydrogen Production, *Journal of Water Process Engineering* (accepted for publication), Sep 2020.
3. HariramVenkatesan, Godwin John John Rose, **PreethiVijayarengan**, SeralathanSivamani, Jagannathan Krishnan, MichaPremkumar T, Predicting the combustion behaviour of compression ignition engine fuelled with biodiesel from *Stoechospermummarginatum*, a macro algae, *Environmental Science and Pollution Research*, DOI:10.1007/s11356-020-10048-z, July 2020.
4. V. T. Neelmudiyon, **PreethiVijayarengan**, S.Govindarajan, A Study on Conjunctive use of Green and Blue Water in Deevanur Tank Irrigated Area, *International journal of advanced research in engineering & technology* 11(9):272-281, 2020.
5. V. NavakoteswaraRao, N. Lakshmana Reddy, M. MamathaKumari, P. Ravi, M. Sathish, K.M. Kuruvilla, **V. Preethi\***, K. Raghava Reddy, T.M. Aminabhavi\*, M.V. Shankar\*, Photocatalytic H<sub>2</sub> production coupled with pollutant removal from sulphide wastewater: Surface and interface control of photo-excitons in Cu<sub>2</sub>S@TiO<sub>2</sub> core-shell nanostructures, *Applied Catalysis B Environmental* 254, (2019) 174-185.
6. S.N.Mohamed\*, **Preethi V\*** and Matheswaran M, Enhancing biohydrogen production from sugar industry wastewater using metal oxide/graphenenanocomposite catalysts in microbial electrolysis cell, *International Journal of Hydrogen Energy*, 45 (2020) 7647-7655.
7. **Preethi V\***, Anthony Raja, Performance of Square and Trapezoidal Photoreactors for Solar Hydrogen Recovery from Various Industrial Sulphide Wastewater using CNT & Ce<sup>3+</sup> doped TiO<sub>2</sub>, *International Journal of Hydrogen Energy*, 45 (2020) 7616-7626.
8. M. Anthony Raja and **V. Preethi\*** Photocatalytic Hydrogen Production using Bench-scale Trapezoidal Photocatalytic Reactor under Visible and Solar Irradiation, *International Journal of Hydrogen Energy*, 45 (2020) 7574-7583.
9. A.Madhumitha, **V.Preethi\*** and S.Kanmani, PhotocatalyticHydrogen Production using TiO<sub>2</sub> Coated Iron-Oxide CoreShell Particles, *International Journal of Hydrogen Energy*, 43 (2018) 3946-3956.
10. Bharatvaj J, **Preethi V\*** and Kanmani S, Hydrogen Production from SulphideWastewater using Ce<sup>3+</sup>-TiO<sub>2</sub>Photocatalysis, *International Journal of Hydrogen Energy*, 43 (2018) 3935-3945.
11. **V. Preethi\*** and Kanmani S, Performance of Nano Photocatalysts for the Recovery of Hydrogen and Sulphur from Sulphide Containing Wastewater, *International Journal of Hydrogen Energy*, 43 (2018) 3920-3934.
12. **V. Preethi\*** and Kanmani S, Optimization of operating parameters for gasphasePhotocatalytic splitting of H<sub>2</sub>S by novel vermiculate packed tubular reactor, *Journal of Environmental Management*, 181, 674-680, 2016
13. **V. Preethi\***&Kanmani S, Performance of gasphase reactors on hydrogen recovery from industrial waste gases, *Int. J Hyd. Energy* 42 (2017) 8997-9002
14. **V. Preethi\*** and S. Kanmani, Performance of four various shapes of photocatalytic reactors with respect to hydrogen and sulphur recovery from sulphide containing waste streams, *Journal of Cleaner Production*,133 (2016) 1218-1226.
15. **V. Preethi\*** and S. Kanmani, Photocatalytic hydrogen recovery using Fe<sub>2</sub>O<sub>3</sub> core shell nano particles, *International J Hydrogen Energy* 39 (2014) 1613-1622.
16. **V. Preethi\*** and S. Kanmani, Photocatalytic Hydrogen Production, *Material Science in Semiconductor Processing*, 16 (2013) 561-575.
17. **V. Preethi\*** and S. Kanmani, Photocatalytic hydrogen production over CuGa<sub>2-x</sub>Fe<sub>x</sub>O<sub>4</sub> Spinel, *International Journal of Hydrogen Energy*, 37 (2012) 18740-18746.

**Research Gate:**[https://www.researchgate.net/profile/Preethi\\_Vijayarengan](https://www.researchgate.net/profile/Preethi_Vijayarengan)

**LinkedIn:**<https://www.linkedin.com/in/preethi-v-30264353/>

**Google Scholar:**<https://scholar.google.com/citations?user=sHrdgC0AAAAJ&hl=en&authuser=1>