

Dr. Muthukumar K
Professor / Chemical Engineering
National Institute of Technology
Tiruchirappalli.
kmkumar@nitt.edu

- Yasvanthrajan, N.; Sivakumar, P.; Muthukumar, K.; Murugesan, T.; Arunagiri, A. Production of biodiesel from waste bio-oil through ultrasound assisted transesterification using immobilized lipase. *Environmental Technology & Innovation*. 2020 (Accepted)
- Bejjanki, D.; Muthukumar, K.; Radhakrishnan, T. K.; Alagarsamy, A.; Pugazhendhi, A.; Mohamed, S. N.; Simultaneous bioelectricity generation and water desalination using *Oscillatoria* sp. as biocatalyst in photosynthetic microbial desalination cell. *Science of The Total Environment*, 2020 (Accepted)
- Khadeeja, P.K.; Muthukumar, K.; Arivalagan, P.; Arun A.; Samsudeen, N. Enhancement of biobutanol production using mixotrophic culture of *Oscillatoria* sp. in cheese whey water, *Fuel*, 2020 (Accepted).
- Lakshmidhevi, R.; Gandhi, N. N.; Muthukumar, K. Bioelectricity and bioactive compound production in an algal assisted microbial fuel cell with immobilized bioanode, *Biomass Conversion and Biorefinery*, 2020 (Accepted).
- Lakshmidhevi, R.; Gandhi, N. N.; Muthukumar, K. Enhanced biomass and lutein production by mixotrophic cultivation of *Scenedesmus* sp. using crude glycerol in an airlift photobioreactor, *Biochemical Engineering Journal*, 2020 (Accepted).
- Kumar, D., & Muthukumar, K. "An overview on activation of aluminium-water reaction for enhanced hydrogen production." *Journal of Alloys and Compounds* (2020): 155189.
- Rajakumar, M., Manickam, M., Gandhi, N. N., & Muthukumar, K. "Nickel centered metal-organic complex as an electro-catalyst for hydrogen evolution reaction at neutral and acidic conditions." *International Journal of Hydrogen Energy* (2020).
- Lakshmidhevi, R., Gandhi, N. N., & Muthukumar, K. "Carbon Neutral Electricity Production from Municipal Solid Waste Landfill Leachate Using Algal-Assisted Microbial Fuel Cell." *Applied Biochemistry and Biotechnology* (2020): 1-15.69.
- Mohamed, S. N., Hiranman, P. A., Muthukumar, K., & Jayabalan, T. "Bioelectricity production from kitchen wastewater using microbial fuel cell with photosynthetic algal cathode." *Bioresource Technology* 295 (2020): 122226.
- Naina Mohamed, S., Jayabalan, T., & Muthukumar, K. "Simultaneous bioenergy generation and carbon dioxide sequestration from food wastewater using algae microbial fuel cell." *Energy Sources, Part A: Recovery, Utilization, and Environmental Effects* (2019): 1-9.
- John, I., Pola, J., Muthukumar, K., Thanabalan, M., & Appusamy, A. "Production of bioethanol from sweet lime peel via a statistically optimized simultaneous saccharification and fermentation process using isolated enzymes." *Energy Sources, Part A: Recovery, Utilization, and Environmental Effects* (2019): 1-9.
- Sivanarutselvi, S., Poornima, P., Muthukumar, K., and Velan, M. "Studies on effect of alkali pretreatment of banana pseudostem for fermentable sugar production for biobutanol production." *Journal of Environmental Biology*, 40(3) (2019) 393-399.
- Yasvanthrajan, N., Nabera, A., Salike, S., Valan, D.T., Sivakumar, P., Muthukumar, K. and Arunagiri, A. "An overview on the process intensification of microchannel reactors

for biodiesel production” Chemical Engineering and Processing - Process Intensification 136 (2019) 163-176.

- Ramprakash, B. and Muthukumar, K. “Influence of sulfuric acid concentration on biohydrogen production from rice mill wastewater using pure and coculture of *Enterobacter aerogenes* and *Citrobacter freundii*” International Journal of Hydrogen Energy 43 (2018) 9254-9258.
- Merlyn Sujatha R. and Muthukumar, K. “Influence of pre-soaking conditions on ultrasonic extraction of *Spirulina platensis* proteins and its recovery using aqueous biphasic system” Separation Science and Technology 53 (2018) 2034 –2043.
- Sivanarutselvi, S., Muthukumar, K. and Velan, M. “Studies on Effect of Hydrothermal Pretreatment of Sugarcane Bagasse for Biobutanol Production” Energy Sources, Part A: Recovery, Utilization, and Environmental Effects 39 (2017) 1771-1777 (Impact factor: 0.648).
- Indulekha, J., Muthukumar, K. and Arunagiri, A. “A review on the potential of citrus waste for D-limonene, pectin and bioethanol production” International Journal of Green Energy 14 (2017) 599-612 (Impact factor: 1.61).
- Ramadoss, G. and Muthukumar, K. “Ultrasound assisted metal chloride treatment of sugarcane bagasse for bioethanol production” Renewable energy 99 (2016) 1092-1102. (Impact factor: 3.404)
- Manjamatha, V.P., Muthukumar, K. “Pretreated lignocellulosic waste mediated biosynthesis of silver nanoparticles under room temperature” Accepted for publication in International Journal of Nanoscience (2016).
- Madhumathi, R., Muthukumar, K., Velan, M. “Optimization of polyhydroxybutyrate Production by *Bacillus safensis* EBT1” Clean – Soil, Air, Water 44 (8), 1066–1074 (2016). (Impact factor 1.716)
- Manjamatha, V.P., Muthukumar, K. “Ultrasound assisted green synthesis of silver nanoparticles using weed plant” Bioprocess and Biosystems Engineering 39 (3) (2016) 401-411. (Impact factor: 1.901 Cited by 2)
- Ramprakash, B and Muthukumar, K. “Biohydrogen production from rice mill wastewater using mutated *Enterobacter aerogenes*” Engineering in Agriculture, Environment and Food 9 (1), (2016)109-115.
- Ramadoss, G. and Muthukumar, K. "Mechanistic study on ultrasound assisted pretreatment of sugarcane bagasse using metal salt with hydrogen peroxide for bioethanol production" Ultrasonics sonochemistry 28 (2016) 207-217. (Impact factor: 4.32, Cited by 9).
- Mujiyambere, J.M.V and Muthukumar, K “Studies on dye decolorization by ultrasound assisted electrocoagulation” CLEAN–Soil, Air, Water 44(3) (2016) 232-2838 (Impact factor: 1.94)