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PUBLICATIONS IN REFEREED JOURNALS

2021

1. Yadav, K., **Jagadevan, S***. 2021. Influence of torrefaction and pyrolysis on engineered biochar and its applicability in defluoridation: Insight into adsorption mechanism, batch adsorber design and artificial neural network modelling. *Journal of Analytical and Applied Pyrolysis*, 154(2021)105015 (IF= 3.905).

2020

1. Kumari, S., Jose, S., Tyagi, M., **Jagadevan, S***. 2020. A holistic and sustainable approach for recovery of phosphorus via struvite crystallization from synthetic distillery wastewater. *Journal of Cleaner Production*, 254, DOI: 10.1016/j.jclepro.2020.120037 (IF= 7.246).

2. Rana, A., Yadav, K., **Jagadevan, S***. 2020. A comprehensive review on green synthesis of nature-inspired metal nanoparticles: Mechanism, application and toxicity. *Journal of Cleaner Production*, 272, 122880 (IF= 7.246).

3. Chawley, P., Banerjee, C., **Jagadevan, S***. 2020. Growth of planktonic and biofilm culture of *Nitrosomonas mobilis Ms1* in response to stoichiometric ammonia consumption. *International Biodeterioration & Biodegradation*, 154, 105080 (IF= 4.074).

4. Tyagi, M., Kumari, N., **Jagadevan, S***. 2020. A holistic Fenton oxidation-biodegradation system for treatment of phenol from coke oven wastewater: Optimization, toxicity analysis and phylogenetic analysis. *Journal of Water Process Engineering*, 37, DOI: 10.1016/j.jwpe.2020.101475 (IF= 3.465).

5. Jain, A., Kumari, N**., Jagadevan, S**., Bajpai, V. 2020. Surface properties and bacterial behavior of micro conical dimple textured Ti6Al4V surface through micro-milling, *Surfaces and Interfaces*, 21, 100714. (I.F. 3.724).

6. Yadav, K., Raphi, M., **Jagadevan, S***. 2000. Geochemical appraisal of fluoride contaminated groundwater in the vicinity of a coal mining region: Spatial variability and health risk assessment, Article number 125684, Geochemistry (Chemie der Erde), https://doi.org/10.1016/j.chemer.2020.125684 (IF= 2.871).

7. Yadav, K., **Jagadevan, S***. 2000. Effect of Pyrolysis of Rice Husk–Derived Biochar on the Fuel Characteristics and Adsorption of Fluoride from Aqueous Solution, BioEnergy Research, https://doi.org/10.1007/s12155-020-10189-6 (IF= 2.195).

8. Kumar, N., Banerjee, C., **Jagadevan, S**. 2000. Cationically functionalized dextrin polymer as an efficient flocculant for harvesting microalgae, Energy Reports, 6, Pages 2803-2815 (IF= 3.595).

2019

1. Kumari, N., Rana, A., **Jagadevan, S***. 2019. Arsenite biotransformation by *Rhodococcus* sp.: Characterization, optimization using response surface methodology and mechanistic studies. *Science of the Total Environment*, 687: 577-589 (IF= 6.551).

2. Kumar, N., Banerjee, C., Kumar, N., **Jagadevan, S**. 2019. A novel non-starch based cationic polymer as flocculant for harvesting microalgae. *Bioresource Technology*, 271: 383-390 (IF= 7.539).

3. Kumari, S., Jose, S., **Jagadevan, S*.** 2019. Optimization of phosphate recovery as struvite from synthetic distillery wastewater using a chemical equilibrium model. *Environmental Science and Pollution Research*. https://doi.org/10.1007/s11356-019-06152-4 (IF= 3.056).

4. Yadav, K., Tyagi, M., Kumari, S., **Jagadevan, S***. 2019. Influence of process parameters on optimization of biochar fuel characteristics derived from rice husk: A promising alternative solid fuel. *Bioenergy Research*. https://doi.org/10.1007/s12155-019-10027-4 (IF= 2.195).

5. Kumari, S., Tyagi, M., **Jagadevan, S*.** 2019. Mechanistic removal of environmental contaminants using biogenic nano-materials. *International Journal of Environmental Science and Technology*. https://doi.org/10.1007/s13762-019-02468-3 (IF= 2.54).

2018

1. Rana, A., Kumari, N., Tyagi, M., **Jagadevan, S***. 2018. Leaf-extract mediated zero-valent iron for oxidation of Arsenic (III): Preparation, characterization and kinetics. *Chemical Engineering Journal***,** 347, 91–100 (IF= 10.652).

2. Tyagi, M., Rana, A., Kumari, S., **Jagadevan, S***. 2018. Adsorptive removal of cyanide from coke oven wastewater onto zero-valent iron: Optimization through response surface methodology, isotherm and kinetic studies. *Journal of Cleaner Production*, 178, 398-407 (IF= 7.246).

3. **Jagadevan**, **S**., Banerjee, A., Banerjee, C., Guria, C., Tiwari, R., Baweja, M., Shukla. P. 2018. Recent developments in synthetic biology and metabolic engineering in microalgae towards biofuel production. *Biotechnology for Biofuels*, 11: 185. (IF= 4.815).

2016

1. Kumari, N., **Jagadevan, S*.** 2016. Genetic identification of arsenate reductase and arsenite oxidase in redox transformations carried out by arsenic metabolising prokaryotes - A comprehensive review. *Chemosphere*, 163, 400-412 (IF= 5.778).

2. Rana, V., Maiti, S.K., **Jagadevan, S.** 2016. Ecological risk assessment of metals contamination in the sediments of natural urban wetlands in dry tropical climate. *Bulletin of Environmental Contamination and Toxicology*, 97: 407-412 (IF= 1.657).

2014

1. Vorobev, A., **Jagadevan, S.,** Jain, S., Anantharaman, K., Dick, G., Vuilleumier, S., Semrau, J.D. 2014. Genomic and transcriptomic analyses of the facultative methanotroph *Methylocystis* sp. Strain SB2 grown on methane or ethanol. *Applied and Environmental Microbiology*. 80 (10), 3044-3052 (IF= 4.016).

2. Seixas, F., Fukuda, D., Turbiani, F., Garcia, P.S., Petkowicz, C., **Jagadevan**, **S**., Gimenes, M. 2014. Extraction of pectin from passion fruit peel (*Passiflora edulis* f. *flavicarpa*) by microwave-induced heating. *Food Hydrocolloids*. 38, 186-192 (IF= 7.053).

2013

1. **Jagadevan, S.,** Graham, N., Thompson, I. 2013. Treatment of waste metalworking fluid by a hybrid ozone-biological process. *Journal of Hazardous Materials*. 244-245, 394-402 (IF= 9.038).

2. Vorobev, A., **Jagadevan**, **S.**, Baral, B., DiSpirito, A., Freemeier, B., Bergman, B., Bandow, N., Semrau, J. 2013. Detoxification of mercury by methanobactin from *Methylosinus trichosporium* OB3b. *Applied and Environmental Microbiology*, 79 (19), pp 5918- 5926 (IF= 4.016).

3. Oliveira, R.C., Rossi, R.M., Gimenes, M.L., **Jagadevan, S.,** Giufrida, W.M., Barros. S.T. 2013. "Extraction of passion fruit seed oil using supercritical carbon dioxide: a study of mass transfer and rheological property by Bayesian inference", *Grasas Y Aceites*, 64 (4), pp 400-406 (IF=1.14).

4. Semrau, J.D., **Jagadevan**, **S**., DiSpirito, A., Scanlan, J., Khalifa, A., Bergman, B.H., Freemeier, B.C., Baral, B.S., Bandow, N.L., Vorobev, A., Haft, D.H., Vuilleumier, S., Murrell, J.C. "Methanobactin and MmoD work in concert to act as the "copper switch" in methanotrophs", 2013, *Environmental Microbiology*, 15(11): 3077-86 (IF= 4.933).

5. **Jagadevan, S.,** Semrau, J. "Priority pollutant degradation by the facultative methanotroph, *Methylocystis* strain SB2", 2013, *Applied Microbiology and Biotechnology*, 97 (11), pp 5089-5096 (IF= 3.53).

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1. **Jagadevan**, **S**., M. Jayamurthy, P. Dobson, I. Thompson. "A novel hybrid nano zerovalent iron initiated oxidation-biological degradation approach for remediation of recalcitrant waste metalworking fluids", 2012, *Water Research*, 46(7), pp 2395-2404 (IF= 9.13).

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1. **Jagadevan, S.,** P. Dobson, I. Thompson. "Harmonisation of chemical and biological process in development of a hybrid technology for treatment of recalcitrant metalworking fluid", 2011, *Bioresource Technology*, pp 8783-8789 (IF= 7.539).

2004

1. **Jagadevan, S.,** and S. Mukherji, "Successful in situ oil bioremediation programmes-Key parameters", 2004, *Indian Journal of Biotechnology*, Vol 3, pp 495-501 (IF= 0.413).

2. S. Mukherji, **S. Jagadevan**, G. Mohapatra, A. Vijay. "Biodegradation of diesel oil by an Arabian Sea sediment culture isolated from the vicinity of an oil field", 2004, *Bioresource Technology*, 95, pp 281-286 (IF= 7.539).

Book Chapters

Krishna Yadav, **Sheeja Jagadevan**, 2019, Influence of Process Parameters on Synthesis of Biochar by Pyrolysis of Biomass: An Alternative Source of Energy, In: Recent advances in Pyrolysis, Edited by Ibrahim, H.A., IntechOpen Limited, London, UK. DOI: 10.5772/intechopen.88204

Conference Papers

K. Yadav and S. Jagadevan, "Effect of pyrolytic conditions on fuel ratio of rice husk derived biochar: An optimization through response surface methodology", International Conference on Water, Energy and Environmental Sustainability, NIT Durgapur, India held on 13-15 January, 2020.

P. Chawley and S. Jagadevan, "Protein-protein interaction between nitrogen, sulfur and methane metabolism pathways of *Nitrosospira multiformis* – A potential biofuel producing microorganism", RECYCLE 2020, 3rd International Conference on waste management organised by Indian Institute of Technology, Guwahati, India held on 13-14 February, 2020.

S. Kumari and S. Jagadevan, "Wastewater Treatment and Resource Recovery via Struvite Crystallization from high strength industrial wastewater", RECYCLE 2020, 3rd International Conference on waste management organised by Indian Institute of Technology, Guwahati, India held on 13-14 February, 2020.

N. Kumari, S. Jagadevan, "Bioremediation of arsenic contaminated groundwater through bioaccumulation of As(V)", International Water Association 11th Eastern European Young Water Professionals Conference, Prague, Czech Republic held on 1-5 October, 2019.

M. Tyagi, S. Jagadevan, "Hybrid treatment for sequential removal of phenol and cyanide from coke oven wastewater by Nano scale zero-valent iron mediated adsorption and biological

degradation", International Water Association 11th Eastern European Young Water Professionals Conference, Prague, Czech Republic held on 1-5 October, 2019.

A. Rana, S. Jagadevan, "Chemical and green Zero Valent Iron nanoparticles as arsenic remediating agents: A comparative study", International Water Association 11th Eastern European Young Water Professionals Conference, Prague, Czech Republic held on 1-5 October, 2019.

K. Yadav, S. Jagadevan, "Optimization of rice-husk derived biochar through response surface methodology for removal of fluoride from groundwater", IBI Biochar World Congress 2019, Korea University, South Korea held on 10-14 November 2019.

S. Jagadevan, Invited talk, "Zerovalent Iron mediated remediation- An emerging water treatment technology", 33rd Annual Conference, Indian Council of Chemists, 2014.

S. Jagadevan, A. Vorobev, J. Im, J. Semrau "Pollutant degradation by the facultative methanotroph *Methylocystis* strain SB2 grown on ethanol" Gordon Research Conference, Molecular basis of microbial one-carbon metabolism, Bates College, Lewiston, Maine, USA, held on August 5-10, 2012.

S. Jagadevan, M. Jayamurthy, A. Bhattacharya, P. Dobson, I. Thompson "Nano-Catalysts In Remediation Of Recalcitrant Industrial Wastewater*"* Second IJAS Conference, Harvard University, Boston, held on May 29-June 2, 2011.

S. Jagadevan, P. Dobson, I. Thompson "Optimization of Fenton reagents using central composite design for hybrid treatment of recalcitrant metal-working fluid wastewater" SETAC Europe 21st Annual Meeting, Milan, Italy, held on 15-19 May, 2011.

S. Jagadevan and S. Mukherji, "Microbial decontamination of oil in the environment", National Seminar on Energy and Environment, Anand Engineering College, Agra, held on 21-22 December 2001.