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Scientific Officer – H

### List of publications

1. T. Subba Rao. Microbial Biofilms and Biotechnology – Some Perceptions. Current Biotechnology (In Press).
2. B. Uday Kumar, N .P.I. Das, T. Subba Rao. Microbial interactions with uranium: Towards an effective bioremediation approach. Environmental Technology & Innovation. 101254, <https://doi.org/10.1016/j.eti.2020.101254>, (2020).
3. T. Manobala, S.K. Shukla, T. Subba Rao. M.D. Kumar. Kinetic Modelling of the Uranium Biosorption by *Deinococcus radiodurans* biofilm. Chemosphere, 128722, (2020).
4. M. Rajeev, T. J., Sushmitha, T. Subba Rao, S. K. Pandian. Sediment-associated bacterial community and predictive functionalities are influenced by choice of 16S ribosomal RNA hypervariable region(s): An amplicon-based diversity study. Genomics, Vol. 112, 4968-4979, (2020).
5. A.A. Kumar, Swetha Sonwani, D. Bakkiam, N. Ramanathan, T. Subba Rao. Gamma radiation induced changes in antioxidant and radio-protective activities of flavonoids differing mainly with respect to -OH substitution pattern in B and C rings. Journal of Radio-analytical & Nuclear Chemistry. DOI: 10.1007/s10967-020-07366-, (2020).
6. T. Subba Rao, C.S. Kumar, S. Chandra. Comparative assessment of exopolymer production and chemical characteristics of two environmental biofilm isolates of *Pseudomonas aeruginosa*. Chemical Reports, Vol: 2, 132-143 (2020).
7. Rajeev Meora, T J Sushmitha, Krishnan Prasanth, T. Subba Rao, S.K. Pandian, Systematic assessment of chlorine tolerance mechanism in a potent biofilm forming marine bacterium *Halomonas boliviensis*. International Biodeterioration & Biodegradation, Vol: 151, 104967 (1-11), (2020).
8. V. Balasubramani, T. Subba Rao; TM, Sridhar Review – Recent advances in Electrochemical Impedance Spectroscopy Based Toxic Gas sensors using Semiconducting Metal Oxides. Journal of The Electrochemical Society, Vol: 167, 037572 (2020).
9. A.Padmavathi, P.S.Murthy, Arindam Das, A. Priya, T.J. Sushmitha, S.K. Pandian, T. Subba Rao. Impediment of growth and Yeast-to-Hyphae transition of *Candida albicans* by copper oxide nanoparticles. Biofouling DOI: 10.1080/08927014.2020.1715371, (2020).
10. S.K. Shukla, S. Hariharan, T. Subba Rao. Uranium bioremediation by acid phosphatase activity of *Staphylococcus aureus* biofilms: Can a Foe turn a Friend? Journal of Hazardous Materials 384, Sep 25:121316. doi: 10.1016. (2020).
11. S.K. Shukla, A. Paraneeiswaran, T. Subba Rao. Biosorption of Co-EDTA complex by *Aspergillus versicolor* SPF-1 strain isolated from solar salt pan. Journal of Environmental Chemical Engineering. Available online 16 November 2019, 103549.
12. A. R.Padmavathi, P. S. Murthy, Arindam Das, P. Abdul Nishad, R. Pandian, T. Subba Rao. Copper oxide nanoparticles as effective antibiofilm agent against a copper tolerant marine bacterium *Staphylococcus lentus*. Biofouling, <https://doi.org/10.1080/08927014.2019.1687689>
13. T. Manobala, Sudhir K. Shukla, T. Subba Rao and M. Dharmendra Kumar. Uranium sequestration by biofilm forming bacteria isolated from marine sediment collected from Southern coastal region of India. International Biodeterioration & Biodegradation, Vol. 145, 1-10, (2019).
14. T. Manobala, Sudhir K. Shukla, T. Subba Rao and M. Dharmendra Kumar. A New Uranium Bioremediation Approach using Radio-tolerant *Deinococcus radiodurans* Biofilm. Journal of Biosciences Vol. 44, 144-151 (2019).

15. K. Dugeswar, S. K. Shukla, T. Subba Rao. Microbiota of spent nuclear fuel pool water with emphasis on their biofilm forming ability on stainless steel (SS-304L). *Journal of Biosciences*, Vol. 44, 108-114 (2019).
16. S.K. Shukla, T. S. Rao. An Improved Crystal Violet Assay for Biofilm Quantification in 96-Well Microtitre Plate. *Journal Biochemie & Chemical Biology* Vol:2: 009 (1-4).2019.
17. V. Balasubramani, S. Sureshkumar, T.Subba Rao; TM, Sridhar. Impedance spectroscopic based rGO incorporated ZnO composite sensor for H<sub>2</sub>S investigations. *ACS Omega*, Vol: 4, 9976–9982, 2019.
18. V. Balasubramani, S. Sureshkumar, T. Subba Rao, T.M. Sridhar and R. Sasikumar. Development of 2D SnO<sub>2</sub>/GO Nanocomposites for H<sub>2</sub>S gas sensor using electrochemical impedance spectroscopy at room temperature. *Sensor Letters*, Vol: 17, 237–244, 2019.
19. Tamilselvan Manobala, Sudhir Kumar Shukla, Toleti Subba Rao and Mahendradas Dharmendirakumar. A Modified Spectrophotometric arsenazo-III Method for Estimation of Uranium and its Biochemical Application. *Journal Biochemie & Chemical Biology*, Vol: 2:005 (1-10).2019.
20. M. Rajeev, T.J. Sushmitha, T. Subba Rao, S. K. Pandian. Culture dependent and independent analysis and appraisal of early stage biofilm-forming bacterial community composition in the Southern coastal seawater of India. *Science of the Total Environment*, Vol: 666 308–320, 2019.
21. T. S. Rao. Biofilms: An Enigmatic Biochemistry of Microbial Life. *Journal Biochemie & Chemical Biology*, Vol: 3: 004 (1-5) .2018.
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26. S. Suresh Kumar, V. Balasubramani, L. Sujatha, B. Venkatachalapathy, T. S. Rao, T.M. Sridhar. Influence of H<sub>2</sub>S concentration on Mn Sensitized Tin dioxide nanoparticles based sensor – An Impedance spectroscopic investigation, *Sensor Letters*, Vol: 14, 1-6 (2016).
27. S.K. Shukla and T. S. Rao. Heterologous Expression and Purification of a 238 kDa Large Biofilm Associated Surface Protein (Bap) in *Escherichia coli*. *Cloning & Transgenesis*, Vol: 5, 153(1-6), (2016).
28. P. Kannan, T S Rao, N. Rajendran. Anti-Corrosion Behavior of Benzimidazolium-tetra-fluoroborate Ionic Liquid in Acid Medium Using Electrochemical Noise Technique. *J Molecular Liquids*, Vol: 222, 586-595, (2016).
29. K. Aruna Joythi, B. Anup Kumar, T.S. Rao, M. Arunachalam. Exopolymer produced by *Pseudomonas aeruginosa*: A super sorbent for ruthenium. *Separation Science and Technology*, Vol: 51, 1455-1460, (2016).
30. Neelam Mangwani, Sudhir K. Shukla, Supriya Kumari, T. S. Rao and Surajit Das. Effect of biofilm parameters and extracellular polymeric substances composition on polycyclic aromatic hydrocarbons degradation by marine bacterial isolates. *RSC Advances*, Vol: 6, 57540-57551 (2016).
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38. A. Paraneiswaran, S. K Shukla, V. S. Sathyaseelan, T. S.Rao. A spectrophotometric method for the determination of Co-EDTA complexes. *International Journal of Applied Sciences & Biotechnology*. 3: 584-587, (2015).
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41. T.S. Rao, S. Jayachandran. Microbial distribution in the thermal plume and in near vicinity of a coastal nuclear power plant. *Indian Nuclear Society News*, Vol: 11, 22-27, (2015).
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