

LIST OF PUBLICATIONS

Faculty: Dr Rangabhashiyam Selvasembian

Department of Environmental Science and Engineering

Publication Summary

Category	Published
Research Papers	108
Books	04
Book Chapters	11
Total	123

JOURNAL PUBLICATIONS

108. UrpiCabrejos-Cardena, Gabriel Enrique De-la-Torre, Sina Dobaradaran, **Selvasembian Rangabhashiyam**, An ecotoxicological perspective of microplastics released by face masks, Journal of Hazardous Materials, Volume 443, Part B, 5 February 2023, 130273

107. Sasidharan V., Jordana Georgin, Dison S. P. Franco, Lucas Meili, Pardeep Singh, Ali H. Jawad, **Rangabhashiyam Selvasembian**, Hexavalent chromium adsorption onto environmentally friendly mesquite gum-based polyurethane foam, Biomass Conversion and Biorefinery (2022), <https://doi.org/10.1007/s13399-022-03528-4>

106. Anita Sudhaik, Pankaj Raizada, Tansir Ahamad, Saad M.Alshehri, Van-Huy Nguyen, Quyet Van Le, Sourbh Thakur, Vijay Kumar Thakur, **Rangabhashiyam Selvasembian**, Pardeep Singh, Recent advances in cellulose supported photocatalysis for pollutant mitigation: A review, International Journal of Biological Macromolecules, 2022. <https://doi.org/10.1016/j.ijbiomac.2022.11.241>

105. Nirakar Pradhan, Sanjay Kumar, **Rangabhashiyam Selvasembian**, Shweta Rawat, Agendra Gangwar, R. Senthamizh, Yuk Kit Yuen, Lijun Luo, Seenivasan Ayothiraman, Ganesh Dattatraya Saratale, Joyabrata Mal, Emerging trends in the pretreatment of microalgal biomass and recovery of value-added products: A review, Bioresource Technology, Volume 369, February 2023, 128395

104. Shilpa Patial, Sonu, Anita Sudhaik, Naresh Chandel, Tansir Ahamad, Pankaj Raizada, Pardeep Singh, Nhamo Chaukura, **Rangabhashiyam Selvasembian**, A Review on Carbon Quantum Dots Modified g-C3N4-Based Photocatalysts and Potential Application in Wastewater Treatment, Appl. Sci. 2022, 12(21), 11286; <https://doi.org/10.3390/app122111286>

-
103. Danilo Henrique da Silva Santos, Ye Xiao, Nhamo Chaukura, Josephine M. Hill, **Rangabhashiyam Selvasembian**, Carmem L.P.SilvaZanta, Lucas Meili, Regeneration of dye- saturated activated carbon through advanced oxidative processes: A review, *Heliyon*, Volume 8, Issue 8, August 2022, e10205.
102. Monojit Mondal, Vineet Kumar, Amit Bhatnagar, Meththika Vithanage, **Rangabhashiyam Selvasembian**, Balram Ambade, Erik Meers, Punarbasu Chaudhuri, Jayanta Kumar Biswas, Bioremediation of metal(loid) cocktail, struvite biosynthesis and plant growth promotion by a versatile bacterial strain *Serratia* sp. *KUJM3: Exploiting environmental co-benefits*, *Environmental Research*, Volume 214, Part 3, November 2022, 113937
101. Nurfadhila Nasya Ramlee, Rosli Md Illias, Roshanida A. Rahman, Susilawati Toemen, **Rangabhashiyam Selvasembian**, Rabi'atul Adawiyah Ahmad, Nor Hasmaliana Abdul Manas, Nur Izyan Wan Azelee, Biochemical and Physical Characterization of Immobilized *Candida rugosa* Lipase on Metal Oxide Hybrid Support, *Catalysts* 2022, 12,854. <https://doi.org/10.3390/catal12080854>
100. Rohit Kumar, Pankaj Raizada, Tanisr Ahamad, Saad M.Alshehri, Quyet Van Le Taghrid S. Alomar, Van-Huy Nguyen, **Rangabhashiyam Selvasembian**, Sourbh Thakur, D.C.Nguyen, Pardeep Singh, Polypyrrole-based nanomaterials: A novel strategy for reducing toxic chemicals and others related to environmental sustainability applications, *Chemosphere*, Volume 303, Part 2, September 2022, 134993
99. Joshua O.Ighalo, **Selvasembian Rangabhashiyam**, Kanika Dulta, Chisom T.Umeh, Kingsley O.Iwuozor, Chukwunonso O.Aniagor, Steve O.Eshiemogie, Felicitas U.Iwuchukwu, Chinenye Adaobilgwegbe, Recent advances in hydrochar application for the adsorptive removal of wastewater pollutants, *Chemical Engineering Research and Design*, Volume 184, August 2022, Pages 419-456.
98. Yogesh Kumar, Rohit Kumar, Pankaj Raizada, Aftab Aslam Parwaz Khan, Van-Huy Nguyen, Soo Young Kim, Quyet Van Le, **Rangabhashiyam Selvasembian**, Archana Singh, Sourav Gautam, Chinh Chien Nguyen, Pardeep Singh, Recent progress on elemental sulfur based photocatalysts for energy and environmental applications, *Chemosphere*, Volume 305, October 2022, 135477.
97. Anita Sudhaik, Pankaj Raizada, **S. Rangabhashiyam**, Archana Singh, Van-Huy Nguyen, Quyet Van Le, Aftab Aslam Parwaz Khan, Chechia Hu, Chao-Wei Huang, Tansir Ahamad, Pardeep Singh, Copper sulfides based photocatalysts for degradation of environmental pollution hazards: A review on the recent catalyst design concepts and future perspectives, *Surfaces and Interfaces*. <https://doi.org/10.1016/j.surfin.2022.102182>
96. Jawad, A.H., Abdulhameed, A.S., **Selvasembian**, R. Zeid A. ALothman, Lee D. Wilson. Magnetic biohybrid chitosan-ethylene glycol diglycidyl ether/magnesium oxide/Fe₃O₄ nanocomposite for textile dye removal: Box–Behnken design optimization and mechanism study. *J Polym Res* 29, 207 (2022). <https://doi.org/10.1007/s10965-022-03067-6>

95. C. Ramprasad, Willis Gwenzi, Nhamo Chaukura, Nurlzyan Wan Azelee, Anushka Upamali Rajapaksha, M.Naushad, **S. Rangabhashiyam**, Strategies and options for the sustainable recovery of rare earth elements from electrical and electronic waste, Chemical Engineering Journal. <https://doi.org/10.1016/j.cej.2022.135992>

94. Norhafiza Nordin, Nor Hasmaliana Abdul Manas, Aizi Nor MazilaRamli, **Rangabhashiyam Selvasembian**, Nur Izyan WanAzelee, Rajinikanth Rajagopal, Anand Thirupathi, Soon Woong Chang, Balasubramani Ravindran, Highly sustainable cascade pretreatment of low-pressure steam heating and organic acid on pineapple waste biomass for efficient delignification, Fuel, Volume 321, 1 August 2022, 124061.

93. Yogesh Kumar, Rohit Kumar, Pankaj Raizada, Aftab Aslam ParwazKhan, Archana Singh, Quyet Van Le, Van-HuyNguyen, **Rangabhashiyam Selvasembian**, Sourbh Thakur, Pardeep Singh, Current status of hematite ($\alpha\text{-Fe}_2\text{O}_3$) based Z-scheme photocatalytic systems for environmental and energy applications, Journal of Environmental Chemical Engineering Volume 10, Issue 3, June 2022, 107427

92. Shilpa Patial, Abhinandan Kumar, Pankaj Raizada, Quyet Van Le, Van-Huy Nguyen, **Rangabhashiyam Selvasembian**, Pardeep Singh, Sourbh Thakur, Chaudhery Mustansar Hussain, Potential of graphene based photocatalyst for antiviral activity with emphasis on COVID-19: A review, Journal of Environmental Chemical Engineering, Volume 10, Issue 3, June 2022, 107527

91. AnushaEkanayake, Anushka UpamaliRajapaksha, **Rangabhashiyam Selvasembian**, MeththikaVithanage, Amino-functionalized biochars for the detoxification and removal of hexavalent chromium in aqueous media, Environmental Research, Volume 211, August 2022, 113073

90. Joshua O.Ighalo, Pow-SengYap, Kingsley O.Iwuozor, Chukwunonso O.Aniagor, TianqiLiu, KanikaDulta, Felicitas U.Iwuchukwu, **Selvasembian Rangabhashiyam**, Adsorption of persistent organic pollutants (POPs) from the aqueous environment by nano-adsorbents: A review, Environmental Research, Volume 212, Part A, September 2022, 113123

89. A.Sethupathy, P.Sobana Piriya, R.Ranjith Kumar, M.Shanthi, **S.Rangabhashiyam**, C.Arun, K.Vasanth Ragavan, Assessment of methane enrichment efficacy of pre-disintegrated water hyacinth biomass using sonic wave assisted biosurfactant, Fuel, Volume 316, 15 May 2022, 123375

88. Vatika Soni, Atul Khosla, Pardeep Singh, Van-Huy Nguyen, Quyet Van Le, **Rangabhashiyam Selvasembian**, Chaudhery Mustansar Hussain, Sourbh Thakur, Pankaj Raizada, Current perspective in metal oxide based photocatalysts for virus disinfection: A review, Journal of Environmental Management, Volume 308, 15 April 2022, 114617

87. Subramaniyasharma Sivaraman, Nithin Michael Anbuselvan, Ponnusami Venkatachalam, Saravanan Ramiah Shanmugam, **Rangabhashiyam Selvasembian**, Waste tire particles as efficient materials towards hexavalent chromium removal: Characterisation, adsorption

behaviour, equilibrium, and kinetic modelling, Chemosphere, Volume 295, May 2022, 133797

86. Ali H. Jawad, **S. Rangabhashiyam**, Ahmed Saud Abdulhameed, Syed Shatir A. Syed-Hassan, Zeid A. AlOthman, Lee D. Wilson, Process Optimization and Adsorptive Mechanism for energy Blue 19 Dye by Magnetic Crosslinked Chitosan/MgO/Fe₃O₄ Biocomposite, J Polym Environ (2022).<https://doi.org/10.1007/s10924-022-02382-9>

85. Willis Gwenzi, **Rangabhashiyam Selvasembian**, Nnanake-Abasi O. Offiong, Alaa El Din Mahmoud, Edmond Sanganyado, Joyabrata Mal, COVID-19 drugs in aquatic systems: a review, Environ Chem Lett (2022).<https://doi.org/10.1007/s10311-021-01356-y>

84. Shilpa Patial, Pankaj Raizada, Aftab Aslam Parwaz Khan, Arachana Singh, Quyet Van Le, Van Huy Nguyen, **Rangabhashiyam Selvasembian**, Chaudhery Mustansar Hussain, Pardeep Singh, Emerging new-generation covalent organic frameworks composites as green catalysts: design, synthesis and solar to fuel production, Chemical Engineering Journal, Volume 433, Part 1, 1 April 2022, 134594

83. Chinenye Adaobi Igwegbe, Ifeoma Amaoge Obiora-Okafo, Kingsley O. Iwuozor, Soumya Ghosh, Setyo Budi Kurniawan, **Selvasembian Rangabhashiyam**, Rahul Kanaoujiya, Joshua O. Ighalo, Treatment technologies for bakers' yeast production wastewater, Environmental Science and Pollution Research volume 29, (2022) pages 11004–11026

82. Comfort A. Adeyanju, Samuel Ogunniyi, **Rangabhashiyam Selvasembian**, Mutiat M. Oniye, Oluwaseun J. Ajala, Adewale George Adeniyi, Chinenye Adaobi Igwegbe, Joshua O. Ighalo, Recent Advances on the Aqueous Phase Adsorption of Carbamazepine, ChemBioEng Reviews.<https://doi.org/10.1002/cben.202100042>

81. **S. Rangabhashiyam**, Pollyanna V. dos Santos Lins, Leonardo M.T. de Magalhães O, Pamela Sepulveda, Joshua O. Ighalo, Anushka Upamali Rajapaksha, Lucas Meili, Sewage sludge-derived biochar for the adsorptive removal of wastewater pollutants: A critical review, Environmental Pollution, Volume 293, 15 January 2022, 118581

80. Anushka Upamali Rajapaksha, **Rangabhashiyam S**, Ahamed A, Viraj G, Anusha Ekanayake V.O. Perera, Hasintha W, Shamin M, Mahtab A, Meththika Vithanage a, Yong Sik Ok, A systematic review on adsorptive removal of hexavalent chromium from aqueous solutions: Recent advances, Science of The Total Environment, Volume 809, 25 February 2022, 152055

79. **Rangabhashiyam Selvasembian**, Joyabrata Mal, Radha Rani, Rupika Sinha, Roma Agrahari, Ighalo Joshua, Arockiasamy Santhiagu, Nirakar Pradhan, Recent progress in microbial fuel cells for industrial effluent treatment and energy generation: Fundamentals to scale-up application and challenges, Bioresource Technology,<https://doi.org/10.1016/j.biortech.2021.126462>

78. Hasija, V.; Patial, S.; Singh, P.; Nguyen, V.-H.; Le, Q.V.; Thakur, V.K.; Hussain, C.M.; **Selvasembian, R.**; Huang, C.-W.; Thakur, S.; Raizada, P. Photocatalytic Inactivation of

Viruses Using Graphitic Carbon Nitride-Based Photocatalysts: Virucidal Performance and Mechanism. *Catalysts* 2021, 11, 1448. <https://doi.org/10.3390/catal11121448>

77. Subramani, A.K., Ramani, S.E., **Rangabhashiyam Selvasembian**. Understanding the microstructure, mineralogical and adsorption characteristics of guar gum blended soil as a liner material. *Environ Monit Assess* 193, 855 (2021). <https://doi.org/10.1007/s10661-021-09644-4>

76. P. V. N. Malleswari, S. Swetha, Gautham B. Jegadeesan, **S. Rangabhashiyam**, Biosorption study of amaranth dye removal using Terminalia chebula shell, Peltophorum pterocarpum leaf and Psidium guajava bark, *International Journal of Phytoremediation*, <https://doi.org/10.1080/15226514.2021.2002261>

75. Rohit Kumar, Pankaj Raizada, Aftab Aslam Parwaz Khan, Van-Huy Nguyen, Quyet Van Le, Suresh Ghotekar, **Rangabhashiyam Selvasembian**, Vimal Gandhi, Archana Singh, Pardeep Singh, Recent progress in emerging BiPO 4 -based photocatalysts: Synthesis, properties, modification strategies, and photocatalytic applications, *Journal of Materials Science & Technology*, Volume 108, 10 May 2022, Pages 208-225

74. AbhishekNandan, N.A.Siddiqui, Chandrakant Singh, Ashish Aeri, Willis Gwenzi, Joshua O.Ighalo, Patríciade Carvalho Nagliate, Lucas Meili, Pardeep Singh, Nhamo Chaukura, **Selvasembian Rangabhashiyam**, COVID-19 pandemic in Uttarakhand, India: Environmental recovery or degradation?, *Journal of Environmental Chemical Engineering*, Volume 9, Issue 6, December 2021, 106595

73. Joshua O.Ighalo, **Selvasembian Rangabhashiyam**, Comfort Abidemi Adeyanju, Samuel Ogunniyi, Adewale George Adeniyi, Chinenye Adaobi Igwegbe, Zeolitic Imidazolate Frameworks (ZIFs) for Aqueous Phase Adsorption – A Review, *Journal of Industrial and Engineering Chemistry*, <https://doi.org/10.1016/j.jiec.2021.09.029>

72. Sheetal Sharma, Vishal Dutta, Pankaj Raizada, Aftab Aslam Parwaz Khan, Quyet Van Le, Vijay Kumar Thakur, Jayanta Kumar Biswas, **Rangabhashiyam Selvasembian**, Pardeep Singh, Controllable functionalization of g-C₃N₄ mediated all-solid-state (ASS) Z-scheme photocatalysts toward sustainable energy and environmental applications, *Environmental Technology & Innovation*. <https://doi.org/10.1016/j.eti.2021.101972>

71. Zouhair Elkhilifi, LotfiSellaoui, MengmengZhao, Jerosha Ifthikar, AliJawad, Irshad Ibran Shahib, BadreddineSijilmassi, Altaf HussainLahori, **Rangabhashiyam Selvasembian**, LucasMeili, Eman AbdelnasserGendy, ZhuqiChen, Lanthanum hydroxide engineered sewage sludge biochar for efficient phosphate elimination: Mechanism interpretation using physical modelling, *Science of The Total Environment*, Volume 803, 10 January 2022, 149888

70. Abhinandan Kumar, PankajRaizada, Aftab Aslam ParwazKhan, Van-Huy Nguyen, QuyetVan Le, Archana Singh, Vipin Saini, **Rangabhashiyam Selvasembian**, Tan-ThanhHuynh, PardeepSingh, Phenolic compounds degradation: Insight into the role and evidence of oxygen vacancy defects engineering on nanomaterials, *Science of The Total Environment*, Volume 800, 15 December 2021, 149410

-
69. Erica Porto Fernandes, Társila S.Silva, Cenira M.Carvalho, **Rangabhashiyam Selvasembian**, NhamoChaukura, Leonardo M.T.M.Oliveira, Simoni M. PlentzMeneghetti, LucasMeili, Efficient adsorption of dyes by γ -alumina synthesized from aluminum wastes: Kinetics, isotherms, thermodynamics and toxicity assessment, *Journal of Environmental Chemical Engineering*, Volume 9, Issue 5, October 2021, 106198
68. Harishbabu Balaraman, **Rangabhashiyam Selvasembian**, Vivek Rangarajan, Senthilkumar Rathnasamy, Sustainable and Green Engineering Insights on Deep Eutectic Solvents toward the Extraction of Nutraceuticals, *ACS Sustainable Chem. Eng.* 2021, 9, 34, 11290–11313.
67. Anchal Rana, Anita Sudhaik, Pankaj Raizada, Aftab Aslam Parwaz Khan, Quyet Van Le, Archana Singh, **Rangabhashiyam Selvasembian**, Ashok Nadda & Pardeep Singh, An overview on cellulose-supported semiconductor photocatalysts for water purification, *Nanotechnol. Environ. Eng.* 6, 40 (2021).<https://doi.org/10.1007/s41204-021-00135-y>
66. Kusum Sharma, Pankaj Raizada, Vasudha Hasija, Pardeep Singh, Archana Bajpai, Van-Huy Nguyen, **S. Rangabhashiyam**, Pawan Kumar, Ashok Kumar Nadda, Soo Young Kim, Rajender S.Varma, Thi Thanh NhiLe, Quyet Van Le, ZnS-based quantum dots as photocatalysts for water purification, *Journal of Water Process Engineering*, Volume 43, October 2021, 102217
65. Pankaj Raizada, Thi Hong Chuong Nguyen, Shilpa Patial, Pardeep Singh, Archana Bajpai, Van-Huy Nguyen, Dang Le Tri Nguyen, Xuan Cuong Nguyen, Aftab Aslam Parwaz Khan, **S.Rangabhashiyam**, Soo Young Kim, Quyet Van Le, Toward practical solar-driven photocatalytic water splitting on two-dimensional MoS₂ based solid-state Z-scheme and S-scheme heterostructure, *Fuel*, Volume 303, 1 November 2021, 121302
64. Vasudha Hasija, Pankaj Raizada, Pardeep Singh, Narinder Verma, Aftab Aslam Parwaz Khan, Archana Singh, **Rangabhashiyam Selvasembian**, Soo Young Kim, Chaudhery Mustansar Hussain, Van-Huy Nguyen, Quyet Van Le, Progress on the photocatalytic reduction of hexavalent Cr (VI) using engineered graphitic carbon nitride, *Process Safety and Environmental Protection*, Volume 152, August 2021, Pages 663-678
63. Rohit Kumar, Pankaj Raizada, Narinder Verma, Ahmad Hosseini-Bandegharai, Vijay Kumar Thakur, Van-Huy Nguyen, Quyet Van Le, **Rangabhashiyam Selvasembian**, Pardeep Singh, Recent advances on water disinfection using bismuth based modified photocatalysts: Strategies and Challenges, *Journal of Cleaner Production*, Volume 297, 15 May 2021, 126617
62. Vatika Soni, Pankaj Raizada, Pardeep Singh, Hoang Ngoc Cuong, **Rangabhashiyam S**, Adesh Saini, Reena V.Saini, Quyet Van Le, Ashok KumarNadda, Thi-Thu Le, Van-Huy Nguyen, Sustainable and green trends in using plant extracts for the synthesis of biogenic metal nanoparticles toward environmental and pharmaceutical advances: A review, *Environmental Research*, Volume 202, November 2021, 111622
61. Mohammad Saood Manzar, Gulraiz Khan, Pollyanna Vanessados Santos Lins, Mukarram Zubair, Saif Ullah Khan, **Rangabhashiyam Selvasembian**, Lucas Meili, Nawaf I.Blaisi, Muhammad Nawaz, Hamidi Abdul Aziz, T.S.Kayed, RSM-CCD optimization approach for the

adsorptive removal of Eriochrome Black T from aqueous system using steel slag-based adsorbent: Characterization, Isotherm, Kinetic modeling and thermodynamic analysis, *Journal of Molecular Liquids*, Volume 339, 1 October 2021, 116714

60. Ankita Ojha, Pardeep Singh, Ramesh Oraon, Dhanesh Tiwary, Ajay K. Mishra, Ayman A. Ghfar, Mu. Naushad, Tansir Ahmad, Binota Thokchom, K. Vijayaraghavan, **S. Rangabhashiyam**, An environmental approach for the photodegradation of toxic pollutants from wastewater using silver nanoparticles decorated titania-reduced graphene oxide, *Journal of Environmental Chemical Engineering*, Volume 9, Issue 4, August 2021, 105622

59. Abdallah Reghioua, Djamel Barkat, Ali H. Jawad, Ahmed Saud Abdulhameed, **S. Rangabhashiyam**, Mohammad Rizwan Khan, Zeid A. AlOthman, Magnetic Chitosan-Glutaraldehyde/Zinc Oxide/Fe₃O₄ Nanocomposite: Optimization and Adsorptive Mechanism of Remazol Brilliant Blue R Dye Removal, *J Polym Environ* (2021). <https://doi.org/10.1007/s10924-021-02160-z>

58. **Rangabhashiyam S**, Willis G, Nhamo C, Siyanda M, Recent advances in the polyurethane-based adsorbents for the decontamination of hazardous wastewater pollutants, *Journal of Hazardous Materials*, Volume 417, 5 September 2021, 125960

57. Pal, D.B., **Rangabhashiyam, S.** Singh, P. Cadmium removal by composite copper oxide/ceria adsorbent from synthetic wastewater. *Biomass Conv. Bioref.* (2021). <https://doi.org/10.1007/s13399-021-01534-6>

56. **S. Rangabhashiyam**, K. Vijayaraghavan, Ali H. Jawad, Pardeep Singh, Pardeep Singh, Sustainable approach of batch and continuous biosorptive systems for praseodymium and thulium ions removal in mono and binary aqueous solutions, *Environmental Technology & Innovation*, Volume 23, August 2021, 101581

55. Ahmed Saud Abdulhameed, Nurul Nadiah Mohd Firdaus Hum, **S. Rangabhashiyam**, Ali H. Jawad, Lee D. Wilson, Zaher Mundher Yaseen, Abdullah A. Al-Kahtani, Zeid A. AlOthman, Statistical modeling and mechanistic pathway for methylene blue dye removal by high surface area and mesoporous grass-based activated carbon using K₂CO₃ activator, *Journal of Environmental Chemical Engineering*, Volume 9, Issue 4, August 2021, 105530

54. Deepak Y, **Rangabhashiyam S**, Pramit V, Pardeep S, Pooja D, Pradeep K, Chaudhery Mustansar H, Gajendra KG, Kuppusamy SK, Environmental and Health Impacts of Contaminants of Emerging Concerns: Recent Treatment Challenges and Approaches, *Chemosphere*, Volume 272, June 2021, 129492

53. Viraj Gunarathne, Anushka Upamali Rajapaksha, Meththika Vithanage, Daniel S Alessi, **Rangabhashiyam Selvasembian**, Mu Naushad, Siming You, Patryk Oleszczuk, Yong Sik Ok, Hydrometallurgical processes for heavy metals recovery from industrial sludges, *Critical Reviews in Environmental Science and Technology*. <https://doi.org/10.1080/10643389.2020.1847949>

-
52. A Hariharan, V Harini, Sai Sandhya, **S Rangabhashiyam**, Waste Musa acuminata residue as a potential biosorbent for the removal of hexavalent chromium from synthetic wastewater. *Biomass Conv. Bioref.* (2020). <https://doi.org/10.1007/s13399-020-01173-3>
51. Arunachalam Thirunavukkarasu, Rajarathinam Nithya, Raja Sivashankar, Arunachalam Bose Sathya, **Selvasembian Rangabhashiyam**, Sivanantham Arul Pasupathi, Murugan Prakash, Mayilvahanan Nishanth, Green soap formulation: an insight into the optimization of preparations and antifungal action, *Biomass Conv. Bioref.* (2020). <https://doi.org/10.1007/s13399-020-01094-1>.
50. Suman Nayak, **Rangabhashiyam S**, Balasubramanian P, Paresh Kale, A review of chromite mining in Sukinda Valley of India: impact and potential remediation measures, *International Journal of Phytoremediation*, 22 (2020) 804-818
49. R Nithya, A Thirunavukkarasu, R Sivashankar, **S Rangabhashiyam**, Fenalan Yellow G adsorption using surface-functionalized green nanoceria: An insight into mechanism and statistical modelling, *Environmental Research*, Volume 181, February 2020, 108920
48. Pathy Abhijeet, G. Swagathnath, **S. Rangabhashiyam**, M. Asok Rajkumar, P. Balasubramanian, Prediction of pyrolytic product composition and yield for various grass biomass feedstocks, *Biomass Conversion and Biorefinery*, 10 (2020) 663–674.
47. Selvakumar A, **Rangabhashiyam S**, Biosorption of Rhodamine B onto novel biosorbents from *Kappaphycus alvarezii*, *Gracilaria salicornia* and *Gracilaria edulis*, *Environmental Pollution*, 255, 2019, 113291.
46. **S. Rangabhashiyam**, K. Vijayaraghavan, Biosorption of Tm(III) by free and polysulfone-immobilized *Turbinaria conoides* biomass, *Journal of Industrial and Engineering Chemistry* 80 (2019) 318–324
45. B Behera, B Ravichandra, **S Rangabhashiyam**, R Jayabalan, P. Balasubramanian, Qualitative analysis of biodiesel produced by alkali catalyzed transesterification of waste cooking oil using different alcohols, *Indian Journal of Chemical Technology (IJCT)*, 2019, 26 (4), 330-336.
44. G.T. Adithya, **S. Rangabhashiyam**, C. Sivasankari, Lanthanu-iron binary oxide nanoparticles: As cost-effective fluoride adsorbent and oxygen gas sensor, *Microchemical Journal*, Volume 148, July 2019, Pages 364-373
43. **S. Rangabhashiyam**, P. Balasubramanian, The potential of lignocellulosic biomass precursors for biochar production: Performance, mechanism and wastewater application - A review, *Industrial Crops and Products*, 128 (2019) 405–423.
42. G. Swagathnath, **S. Rangabhashiyam**, S. Murugan, P. Balasubramanian, Influence of biochar application on growth of *Oryza sativa* and its associated soil microbial ecology, *Biomass Conversion and Biorefinery* (2019) June 2019, Volume 9, Issue 2, pp 341–352.

-
41. **S. Rangabhashiyam**, S. Sayantani, P. Balasubramanian, Assessment of hexavalent chromium biosorption using biodiesel extracted seeds of *Jatropha* sp., *Ricinus* sp. and *Pongamia* sp. *International Journal of Environmental Science and Technology*, (2019) 16:5707–5724
40. **S. Rangabhashiyam**, P. Balasubramanian, Characteristics, performances, equilibrium and kinetic modeling aspects of heavy metal removal using algae, *Bioresource Technology Reports*, Volume 5, February 2019, Pages 261-279
39. E. Nakkeeran, Chandi Patra, Tasrin Shahnaz, **S. Rangabhashiyam**, N. Selvaraju, Continuous biosorption assessment for the removal of hexavalent chromium from aqueous solutions using *Strychnos nux vomica* fruit shell, *Bioresource Technology Reports*, Volume 3, September 2018, Pages 256-260.
38. **S. Rangabhashiyam**, P. Balasubramanian, Pollution Control Operation Calculation, *Current Science*, 115(8), 2018, 1595-1596
37. **S. Rangabhashiyam**, P. Balasubramanian, Performance of novel biosorbents prepared using native and NaOH treated *Peltophorum pterocarpum* fruit shells for the removal of malachite green, *Bioresource Technology Reports*, Volume 3, September 2018, Pages 75-81.
36. Rajarathinam N, Chandrasekaran S, Arunachalam T, **Rangabhashiyam S**, Novel adsorbent prepared from bio-hydrometallurgical leachate from waste printed circuit board used for the removal of methylene blue from aqueous solution, *Microchemical Journal* 142 (2018) 321–328.
35. **S. Rangabhashiyam**, Balasubramanian P (2018) Adsorption behaviors of hazardous methylene blue and hexavalent chromium on novel materials derived from *Pterospermum acerifolium* shells. *Journal of Molecular Liquids* 254:433–445.
34. **Rangabhashiyam S**, Balasubramanian P (2018) Biosorption of hexavalent chromium and malachite green from aqueous effluents, using *Cladophora* sp. *Chemistry and Ecology* 34:371–390.
33. **S. Rangabhashiyam**, Balasubramanian P (2018) Utilization of unconventional lignocellulosic waste biomass for the biosorption of toxic triphenylmethane dye malachite green from aqueous solution, *International Journal of Phytoremediation* 20: 624–633.
32. **S. Rangabhashiyam**, Sujata Lata, Balasubramanian P (2018) Biosorption characteristics of methylene blue and malachite green from simulated wastewater onto *Carica papaya* wood biosorbent, *Surfaces and Interfaces*, 10:197-215.
31. K. Vijayaraghavan, **S. Rangabhashiyam**, T. Ashokkumar and Jesu Arockiaraj (2017) Assessment of samarium biosorption from aqueous solution by brown macroalga *Turbinaria conoides*, *Journal of the Taiwan Institute of Chemical Engineers*, 74:113–120.

-
30. K. Vijayaraghavan, **S. Rangabhashiyam**, T. Ashokkumar and Jesu Arockiaraj (2016) Mono- and multi-component biosorption of lead(II), cadmium(II), copper(II) and nickel(II) ions onto coco-peat biomass, *Separation Science and Technology*, 51:2725-2733.
29. **Rangabhashiyam S**, M.S.Giri Nandagopal, Nakkeeran E and N. Selvaraju, Adsorption of hexavalent chromium from synthetic and electroplating effluent on chemically modified *Swietenia mahagoni* shell in a packed bed column, *Environmental Monitoring and Assessment*, 2016, 188:400-411.
28. **Rangabhashiyam S**, M.S.Giri Nandagopal, Nakkeeran E, Keerthi.R and N. Selvaraju, Use of Box-Behnken design of experiments for the adsorption of Chromium using immobilized macroalgae" *Desalination and Water Treatment*, 2016, 57, 26101-26113.
27. **Rangabhashiyam S**, E.Suganya and N. Selvaraju , "Packed bed column investigation on hexavalent chromium adsorption using activated carbon prepared from *Sweetenia Mahogany* fruit shells." *Desalination and Water Treatment*, 57:28, 2016, 13048-13055
26. **Rangabhashiyam S**, N. Selvaraju , Raj Mohan B , Muhammed Anzil P. K, Amith K. D, Ushakumary E. R, "Hydrous cerium oxide nanoparticles impregnated *Enteromorpha* sp. for the removal of hexavalent chromium from aqueous solutions." *Journal of Environmental Engineering*, 2016, 142, C4015016-9.
25. Nakkeeran E, **Rangabhashiyam S**, M.S.Giri Nandagopal, and N. Selvaraju; Removal of Cr(VI) from aqueous solution using *Strychnos nux-vomica* shell as an adsorbent. *Desalination and Water Treatment*, Vol 57, Issue 50- October 2016,23951-23964.
24. E.Suganya, **Rangabhashiyam S**, Lity Alen Varghese and N. Selvaraju; Removal of hexavalent chromium from aqueous solution by a novel biosorbent *Caryota urens* seeds: Equilibrium and kinetic studies" *Desalination and Water Treatment*, Vol 57, Issue 50- October 2016,23940-23950.
23. **Rangabhashiyam S**, E.Suganya, Lity Alen Varghese and N. Selvaraju; Equilibrium and kinetics studies of hexavalent chromium biosorption on a novel green macroalgae *Enteromorpha* sp." *Research on Chemical Intermediates* Vol. 42, February 2016, Issue 2, pp. 1275-1294.
22. **Rangabhashiyam S**, N. Selvaraju; Adsorptive remediation of hexavalent chromium from synthetic wastewater by a natural and ZnCl₂ activated *Sterculia guttata* shell; *Journal of Molecular Liquids* Vol 207, July 2015, pages 39-49
21. **Rangabhashiyam S**, N. Selvaraju; Efficacy of unmodified and chemically modified *Swietenia mahagoni* shell for the removal of hexavalent chromium from simulated wastewater; *Journal of Molecular Liquids*, Vol 209, September 2015, pages 487-497.
20. **Rangabhashiyam S**, Nakkeeran E, Anu N and N. Selvaraju; Biosorption potentials of a novel *Ficus auriculata* leaves powder for the sequestration of hexavalent chromium from

aqueous solutions; Research on Chemical Intermediates Vol 41, November 2015, issue 11, Page 8405-8424.

19. **Rangabhashiyam S**, N. Selvaraju; Evaluation of the biosorption potential of a novel *Caryota urens* inflorescence waste biomass for the removal of hexavalent chromium from aqueous solutions; Journal of the Taiwan Institute of Chemical Engineers, Vol 47, February 2015, 59-70.

18. M.A. Vishnuganth, **S Rangabhashiyam**, Neelancherry Remya, Mathava Kumar, and N. Selvaraju; Optimization of GAC supported TiO₂ photocatalytic process for competent carbofuran removal from an aqueous system; Journal of Scientific and industrial Research, Vol.74, April 2015, 225-231.

17. Anu N, **Rangabhashiyam S**, Rahul Antony and N. Selvaraju; Optimization of wind speed on dispersion of pollutants using coupled receptor and dispersion model; Sadhana Vol 40, issue 5 (2015), Page 1657-1666.

16. E.Suganya, **Rangabhashiyam S**, Lity Alen Varghese and N. Selvaraju; Dynamic Adsorption Modeling Study Using a Modified Redilch-Peterson Isotherm Model; Journal of Scientific and industrial Research, Vol.74, June 2015, 358-361.

15. Anu N, **Rangabhashiyam S**, Rahul Antony and N. Selvaraju; Evaluation of Optimization Methods for Solving Chemical Mass Balance Receptor Model; Journal of Serbian Chemical Society, Vol. 80, No. 2, p. 253–264 (2015)

14. Rahul Antony, M.S.Giri Nandagopal, **Rangabhashiyam S**, Anu N and N. Selvaraju; Numerical Investigation of Stratified Flow-Parallel Reaction Microchannel System: A Deterministic Approach; Indian Journal of Chemical Technology, 22, September 2015, 258-263.

13. M.S.Giri Nandagopal, Rahul Antony, **Rangabhashiyam S**, Nidhin Sreekumar and N. Selvaraju; Overview of Microneedle System- A Third Generation Transdermal Drug Delivery Approach; Microsystem Technologies Vol 20, issue 7- July 2014, 1249-1272.

12. Rahul Antony, M.S.Giri Nandagopal, Nidhin Sreekumar, **Rangabhashiyam S**, N.Selvaraju; Liquid-liquid slug flow in a microchannel reactor and its mass transfer properties- A review; Bulletin of Chemical Reaction Engineering & Catalysis, 9 (3), 2014, 207-223

11. Rahul Antony, M.S.Giri Nandagopal, **Rangabhashiyam S**, and N. Selvaraju; Probabilistic Neural Network prediction of liquid-liquid two phase flows in a circular microchannel" Journal of Scientific and industrial Research Vol.73, August 2014, 524-529.

10. **Rangabhashiyam S**, Anu N, M.S.Giri Nandagopal and N. Selvaraju; A Novel approach of the modified BET Isotherm towards continuous column study; Journal of Scientific and industrial Research, Vol.73, July 2014, 489-494.

9. M.S.Giri Nandagopal, Rahul Antony, **Rangabhashiyam S**, and N. Selvaraju; Advance approach on environmental assessment and monitoring - A Review " Research Journal of Chemistry and Environment. Vol.18 (7) July (2014), 78-90

8. **Rangabhashiyam S**, E.Suganya N. Selvaraju and Lity Alen Varghese, "Significance of exploiting non-living biomaterials for the biosorption of wastewater pollutants " World Journal of Microbiology and Biotechnology Vol 30, June 2014, 1669–1689

7. **Rangabhashiyam S**, Anu N, M.S.Giri Nandagopal and N. Selvaraju; Relevance of isotherm models in biosorption of pollutants by agricultural byproducts; Journal of Environmental Chemical Engineering. Vol 2, issue 1,2014, 398-414

6. **Rangabhashiyam S**, Anu N and N. Selvaraju; "Equilibrium and kinetic modeling of chromium(VI) removal from aqueous solution by a novel biosorbent" Research Journal of Chemistry and Environment, Vol.18 (4) April (2014)30-36

5. R. V. Hemavathy, K. Sankaran, V. Vadanandani; **S. Rangabhashiyam**, In situ separation of ethanol with aqueous two-phase system and assessment of K L a for yeast growth in batch cultivation, Preparative Biochemistry and Biotechnology (2014) Volume 44, Issue 6, 633-644

4. **Rangabhashiyam S**, Anu N and N. Selvaraju, " "Biosorption of heavy metals using low cost agricultural by-products" Research Journal of Chemistry and Environment. Vol.17 (11) November (2013), 112-123.

3. **Rangabhashiyam S**, Anu N and N. Selvaraju; Sequestration of dye from textile industry wastewater using agricultural waste products as Adsorbents; Journal of Environmental Chemical Engineering, Vol 1, issue 4, 2013, 629-641

2. Anu N, **Rangabhashiyam S**, and N. Selvaraju, " A Holistic approach Combining Factor Analysis, Positive Matrix Factorization and UNMIX Applied to Receptor Modeling " Journal of Scientific and industrial Research. Vol.72, December 2013, 754-759

1. **Rangabhashiyam S**, Anu N. and Selvaraju N., The Significance of Fungal Laccase in Textile Dye Degradation – A Review, Research Journal of Chemistry and Environment, Vol.17 (6) June (2013) 88-95

BOOKS PUBLISHED

Rangabhashiyam Selvasembian, Eric D. van Hullebusch, Joyabrata Mal, Biotechnology for Environmental Protection, Springer Singapore, 2022, 978-981-19-4936-4

S Rangabhashiyam, V Ponnusami, Pardeep Singh, Biotechnological Approaches in Waste Management, CRC Press, 2022, ISBN 1000778088, 9781000778083

Rangabhashiyam Selvasembian, Pardeep Singh, Biosorption for Wastewater Contaminants, John Wiley & Sons Ltd. 2021 Print ISBN:9781119737599 | Online ISBN:9781119737629 | DOI:10.1002/9781119737629

Singh Suruchi, Singh Pardeep, **S Rangabhashiyam**, K K Srivastava, Global Climate Change, 2021, Elsevier, Paperback ISBN: 9780128229

BOOK CHAPTER PUBLICATIONS

11. Jayanta Kumar Biswas, Monojit Mondal, Vineet Kumar, Meththika Vithanage, **Rangabhashiyam Selvasembian**, Balram Ambade, Manish Kumar, Omics Reflection on the Bacterial Escape from the Toxic Trap of Metal(loid)s, Cracking the Code of Contaminants Stress, Resistance Repertoire, and Remediation, 2022, CRC Press, eBook ISBN9781003247883

10. Joshua O. Ighalo, Bin Yao, Yaoyu Zhou, Kingsley O. Iwuozor, Ioannis Anastopoulos, Chukwunonso O. Aniagor, **Selvasembian Rangabhashiyam**, Utilization of avocado (*Persea americana*) adsorbents for the elimination of pollutants from water: a review, 2022, Imprint: Elsevier, Paperback ISBN:978-0-323-91914-2

9. Willis Gwenzi, Tinoziva T. Simbanegavi, Hilman Ibnu Mahdi, Nur Izyan Wan Azelee, Norah Muisa Zikali, **Selvasembian Rangabhashiyam**, Occurrence and ecological health risks of microplastics, 2022, Imprint: Elsevier, Paperback ISBN: 9780323900515

8. Bunushree Behera, Suman Nayak, **S. Rangabhashiyam**, R. Jayabalan, and P. Balasubramanian, Microalgae as a Viable Bioresource for Sustainable Biofuel Production through Biorefinery Technologies, CRC Press, 2021, (eBook ISBN 9781003057826)

7. C Ramprasad, **S Rangabhashiyam**, Recycling of Waste and Policy Frameworks in India, Waste Management policies and practices in BRICS nations, CRC Press, 2021 (eBook ISBN 9781003007579)

6. Joyabrata Mal, **S. Rangabhashiyam**, Bioremediation and Phytoremediation as the Environmentally Sustainable Approach for the Elimination of Toxic Heavy Metals, CRC Press, 2021, (eBook ISBN 9781003052234)

5. **S Rangabhashiyam**, Cultivation of Microalgae in Industrial Effluent for Simultaneous Pollutant Removal and Biofuel Production, CRC Press, 2020 (eBook ISBN 9781003001911)

4. S. Hariganesh, S. Vadivel, D. Maruthamani, **S. Rangabhashiyam**, Disinfection Byproducts in Drinking Water: Detection and Treatment methods (Disinfection By-products in Drinking Water, Detection and Treatment), 2020, Pages 279-304 (ISBN 978-0-08-102978-7)

3. C. Ramprasad, **S. Rangabhashiyam**, The role of sustainable decentralized technologies in wastewater treatment and reuse in subtropical Indian conditions (Water Conservation and Wastewater Treatment in BRICS Nations), ISBN: 9780128183397, Imprint: Elsevier, 2020

2. **Rangabhashiyam S**, R. Jayabalan, M. Asok Rajkumar, P. Balasubramanian (2018), Elimination of Toxic Heavy Metals from Aqueous Systems Using Potential Biosorbents (Green Buildings and Sustainable Engineering), Springer, Singapore. ISBN: 978-981-13-1202-1.

1. G. Swagathnath, **S. Rangabhashiyam**, Kar Parthasarathi, S. Murugan, P. Balasubramanian (2018), Modeling Biochar Yield and Syngas Production during the Pyrolysis of Agro-Residues (Green Buildings and Sustainable Engineering), Springer, Singapore. ISBN: 978-981-13-1202-1