Full list of publications

In SCI journals:

- S. Basak, S. Majumdar, S. Barma, **S. Ghosh***, Remediation of Polycyclic Aromatic Hydrocarbons (PAHs) in Coastal Subsurface Water by an Optimized Multilayer Ceramic Composite Superhydrophobic Membrane, ACS Envirn. Sci. & Technol Water (2025) (American Chemical Society) doi: 10.1021/acsestwater.5c00555
- S. Kar, S. Dey, K.B. Chowdhury, S.K. Ghosh, N. Ray, J. Mukhopadhyay, S. Kumar, **S. Ghosh***, S. Majumdar, *Upcycling of polyester based textile fabric waste into surface modified biochar: Assessment of triclosan adsorption efficiency and utilization of used biochar as electrode in supercapacitor*, Materials Chemistry and Physics (Elsevier) 345 (2025) 131207
- L. Ramrakhiani, S. Majumdar, **S. Ghosh***, Recycle of Jute Industry Processing Waste as Biochar for Cu(II) Adsorption from Effluent and Recalcitrance Study for Agriculture and Environment Aspects, Water Air Soil Pollut. (2025) (Springer) 236:893, https://doi.org/10.1007/s11270-025-08535-5
- A. Ray, S. Majumdar, **S. Ghosh***, Development of surface-engineered superhydrophobic antifouling membrane based microalgal photobioreactor for enhancing CO2 sequestration and biomass productivity, Biofouling (2026), 42:2, 158-174, DOI: 10.1080/08927014.2025.2608665
- B. Das, **S. Ghosh**, S. Majumdar, A.K. Mandal, *Arsenic-contaminated sludge remediation induced generation of coloured glass using conventional and microwave heating*, Clean Technologies and Environmental Policy (Springer) 26 (2024) 3021–3031
- S. Basak, S. Barma, S. Majumdar, **S. Ghosh***, *Silane-modified bentonite clay-coated membrane development on ceramic support for oil/water emulsion separation using tuning of hydrophobicity*, Colloids and Surfaces A: Physicochemical and Engineering Aspects (Elsevier) 681 (2024) 132812
- S. Kar, S. Dey, K.B. Chowdhury, S.K. Ghosh, J. Mukhopadhyay, S. Kumar, **S. Ghosh***, S. Majumdar, *Phyto-assisted synthesis of CuO/industrial waste derived biochar composite for adsorptive removal of doxycycline hydrochloride and recycling of spent biochar as green energy storage device*, Environmental Research (Elsevier) 236 (2023) 116824
- S. Kar, B. Santra, S. Kumar, **S. Ghosh***, S. Majumdar, *Sustainable conversion of textile industry cotton waste into P-dopped biochar for removal of dyes from textile effluent and valorisation of spent biochar into soil conditioner towards circular economy*, Environmental Pollution (Elsevier) 312 (2022) 120056
- A. Ray, S. Majumdar, **S. Ghosh***, *Performance Evaluation of Ceramic Membrane Based Process for Microalgal Biomass Harvesting: Analyzing the Effect of Membrane Pore Sizes, Process Optimization and Fouling Behavior*, Trans. Ind. Ceram. Soc. (T&F), 82(3) (2023) 229-238
- S. Basak, S. Barma, S. Majumdar, **S. Ghosh***, *Role of silane grafting in the development of a superhydrophobic clay-alumina composite membrane for separation of water in oil emulsion*, Ceramics International (Elsevier) 48 (2022) 26638–26650
- S. Banerjee, B. Santra, S. Kar, D. Banerjee, **S. Ghosh***, S. Majumdar, *Performance assessment of the indigenous ceramic UF membrane in bioreactor process for highly polluted tannery wastewater treatment*, Environmental Science and Pollution Research (Springer) (2022) https://doi.org/10.1007/s11356-022-19258-z
- L. Ramrakhiani, **S. Ghosh***, S. Majumdar, *Heavy metal recovery from electroplating efuent using adsorption by jute waste-derived biochar for soil amendment and plant*

micro-fertilizer, Clean Technologies and Environmental Policy (Springer) (2022) https://doi.org/10.1007/s10098-021-02243-4

- S. Mukhopadhyay, A. Jana, **S. Ghosh***, S. Majumdar & T.K.Ghosh, *Arthrospira sp. mediated bioremediation of gray water in ceramic membrane based photobioreactor: process optimization by response surface methodology*, International Journal of Phytoremediation (Taylor & Francis) (2022) https://doi.org/10.1080/15226514.2022.2027865
- L. Ramrakhiani, **S. Ghosh***, A.K. Mandal, S. Majumdar, *Utilization of multi-metal laden spent biosorbent for removal of glyphosate herbicide from aqueous solution and its mechanism elucidation*, Chemical Engineering Journal (Elsevier) 361 (2019) 1063–1077
- D. Mukherjee, S. Kar, A. Mandal, **S. Ghosh***, S. Majumdar, *Immobilization of tannery industrial sludge in ceramic membrane preparation and hydrophobic surface modification for application in atrazine remediation from water*, Journal of the European Ceramic Society (Elsevier) 39 (2019) 3235–3246
- P. Bhattacharya, D. Mukherjee, S. Dey, **S. Ghosh**, S. Banerjee, *Development and performance evaluation of a novel CuO/TiO_2 ceramic ultrafiltration membrane for ciprofloxacin removal*, Materials Chemistry and Physics (Elsevier) 229 (2019) 106–116
- T. Das, S. Sengupta, A. Jana, A. Pal, I. Roy, S. Sardar, N.R. Saha, **S. Ghosh**, A. Bandyopadhyay, *Graphene oxide grafted hyperbranched poly (vinyl imidazole) with ionic liquid components as a potential carbon dioxide scrubber* Reactive and Functional Polymers (Elsevier) 146 (2020), 10432–10442
- D. Mukherjee, S. Banerjee, S. Ghosh, S. Majumdar, PDMS/ceramic composite membrane synthesis and evaluation of ciprofloxacin removal efficiency, *Korean J. Chem. Eng.* (Springer) 37 (2020),1985–1998
- A. Majumder, L. Ramrakhiani, D. Mukherjee, U. Mishra, A. Halder, A.K. Mandal, **S. Ghosh***, *Green synthesis of iron oxide nanoparticles for arsenic remediation in water and sludge utilization*, Clean Technologies and Environmental Policy (Springer) 21 (2019) 795–813
- D. Mukherjee, P. Bhattacharya, A. Jana, S. Bhattacharya, S. Sarkar, **S. Ghosh***, S. Majumdar, S. Swarnakar, *Synthesis of ceramic ultrafiltration membrane and application inmembrane bioreactor process for pesticide remediation from wastewater* Process Safety and Environmental Protection (Elsevier) 116 (2018) 22–33
- D. Mukherjee, A. Dewanjee, S. Majumdar, **S. Ghosh***, Development of graphene oxide/chitosan composite membrane on ceramic support for atrazine remediation by MBR process, Environmental Science and Pollution Research (Springer) 25 (2018) 33334–33352
- A. Basak, L. Ramrakhiani, **S. Ghosh**, R. Sen, A.K. Mandal, *Preparation of chromium doped phosphate glass adopting microwave irradiation and comparative analysis of properties with conventional glass*, Journal of Non-Crystalline Solids (Elsevier) 500 (2018) 11–17
- B. Santra, L. Ramrakhiani, S. Kar, **S. Ghosh***, S. Majumdar, *Ceramic membrane-based ultrafiltration combined with adsorption by waste derived biochar for textile effluent treatment and management of spent biochar*, Journal of Environmental Health Science and Engineering (Springer) 18 (2020), 973–992
- L. Ramrakhiani, A. Halder, A. Majumder, A.K. Mandal, S. Majumdar, **S. Ghosh***, *Industrial waste derived biosorbent for toxic metal remediation: Mechanism studies and spent biosorbent management*, Chemical Engineering Journal 308 (2017) 1048–1064
- P. Roy Choudhury, P. Bhattacharya, **S. Ghosh**, S. Majumdar, S. Saha, G.C. Sahoo, *Removal of Cr(VI) by synthesized titania embedded dead yeast nanocomposite: Optimization and modeling by response surface methodology*, Journal of Environmental Chemical Engineering (Elsevier), 5 (2017) 214–221

- S. Dey, S.N. Roy, S. Majumdar, **S. Ghosh**, G.C. Sahoo, *Dispersion Study of Zirconia Nano-Powders Using Dolapix CE64 and M65 Dispersant to Develop UF Membrane over Novel Clay-Alumina Based Ceramic Support for Water Treatment*, Trans. Ind. Ceram. Soc. (T&F) 78 (2019) 187-194
- A. Jana, **S. Ghosh**[*], S. Majumdar, *Energy efficient harvesting of Arthrospira sp. using ceramic membranes: Analyzing the effect of membrane pore size and incorporation of flocculant as fouling control strategy*, Journal of Chemical Technology and Biotechnology (Wiley), 93 (2018), 1085-96
- L. Ramrakhiani, **S. Ghosh**[*], Metallic nanoparticle synthesised by biological route: safer candidate for diverse applications, IET Nanobiotechnology The Institution of Engineering and Technology 12 (2018) 392-404
- A. Jana, P. Bhattacharya, S. Guha, **S. Ghosh**[*], S. Majumdar, *Application of a new ceramic hydrophobic membrane for providing CO_2 in algal photobioreactor during cultivation of Arthrospira sp*., Algal Research (Elsevier), 27 (2017) 223-234
- L. Ramrakhiani, A. Halder, A.K. Mandal, S. Majumdar, and **S. Ghosh**[*], *Toxic Metal Removal Using Biosorption Process and Inertization of Generated Hazardous Metal-Laden Biosorbent*, in Utilization and Management of Bioresources, Proceedings of 6th ICONSWM 2016, S.K. Ghosh (ed.), Springer, DOI 10.1007/978-981-10-5349-8_29
- L. Ramrakhiani, **S. Ghosh**[*], S. Majumdar, *Surface Modification of Naturally Available Biomass for Enhancement of Heavy Metal Removal Efficiency, Upscaling Prospects, and Management Aspects of Spent Biosorbents: A Review*, Appl Biochem Biotechnol (2016) 180: 41–78.
- P. Banerjee, T. K. Dey, S. Sarkar, S. Swarnakar, A. Mukhopadhyay, **S. Ghosh**[*], *Treatment of cosmetic effluent in different configurations of ceramic UF membrane based bioreactor: toxicity evaluation of the untreated and treated wastewater using catfish (Heteropneustes fossilis)*, Chemosphere (Elsevier), 146 (2016) 133-144, http://dx.doi.org/10.1016/j.chemosphere.2015.12.004.
- P. Bhattacharya, S. Swarnakar, A. Mukhopadhyay, **S. Ghosh**[*], *Exposure of composite tannery effluent on snail, Pila globosa: A comparative assessment of toxic impacts of the untreated and membrane treated effluents*, Ecotoxicology and Environmental Safety (Elsevier) 126 (2016) 45–55, http://dx.doi.org/10.1016/j.ecoenv.2015.12.021.
- D. Mukherjee, **S. Ghosh**[*], S. Majumdar, K. Annapurna, *Green synthesis of α-Fe_2O_3 nanoparticles for arsenic (V) remediation with a novel aspect for sludge management*, Journal of Environmental Chemical Engineering (Elsevier) Journal of Environmental Chemical Engineering 4 (2016) 639–650, http://dx.doi.org/10.1016/j.jece.2015.12.010.
- A. Jana, P. Bhattacharya, S. Swarnakar, S. Majumdar, **S. Ghosh**[*], *Anabaena sp. mediated bio-oxidation of arsenite to arsenate in synthetic arsenic (III) solution: Process optimization by response surface methodology*. Chemosphere (Elsevier), (2015) doi: 10.1016/j.chemosphere.2015.07.055. Vol 138, Pages 682–690.
- P. Bhattacharya, **S. Ghosh**[*], S. Majumdar, S. Nath Roy, S. Bandyopadhyay, *Ceramic membrane based microfiltration for treatment of highly contaminated tannery wastewater*, Environmental Engineering and Management Journal (Romania) (2015), Vol. 14, No. 9, 2139-2148.
- P. Bhattacharya, S. Majumdar, S. Bandyopadhyay, **S. Ghosh**[*], *Recycling of tannery effluent from common effluent treatment plant using ceramic membrane based filtration process: A closed loop approach using pilot scale study*, Environmental Progress & Sustainable Energy (Wiley), (2016) 35: 60-69. https://doi.org/10.1002/ep.12200
- A. Jana, P. Bhattacharya, S. Sarkar, S. Majumdar, **S. Ghosh**[*], *An ecofriendly approach towards remediation of high lead containing toxic industrial effluent by a combined*

biosorption and microfiltration process: a total reuse prospect, Desalination and Water Treatment (Taylor and Francis) (2015) DOI: 10.1080/19443994.2015.1004596.

- P. Bhattacharya, **S. Ghosh** *, S. Swarnakar, A. Mukhopadhyay, *Tannery effluent treatment by microfiltration through ceramic membrane for water reuse:assessment of environmental impacts*, CLEAN Soil Air Water (Wiley), 43 (5), 633–644, (2015) DOI: 10.1002/clen.201300199.
- S. Karmakar, M. Mondal, **S. Ghosh**, S. Bandyopadhyay, S. Majumdar, S. De, *Removal of reactive dyes using a high throughput hybrid separation process*, Desalination and Water Treatment (Taylor and Francis) (2015) DOI: 10.1080/19443994.2015.1033762.
- M. Ray, P. Bhattacharya, R. Das, K. Sondhi, **S. Ghosh**, S. Sarkar, *Preparation and characterization of macroporous pure alumina capillary membrane using boehmite as binder for filtration application*, Journal of Porous Materials (Springer), (2015), DOI 10.1007/s10934-015-9978-9.
- G.C.Sahoo, **S. Ghosh**, S. Majumdar, S.Bandyopadhyay, *Clarification of tannery wastewater from beam house operation using ceramic MF membrane*, Applied Science and Advanced Materials International, 1 (1), (2014) 12 -15.
- S. Sarkar, **S. Ghosh**, P. Banerjee, A. Larbot,, S. Cerneaux, S. Bandyopadhyay, C. Bhattacharjee, *Preparation and characterization of single layer ultra filtration alumina membrane directly over porous clay-alumina tubular and capillary support for textile effluent treatment*, Transactions of the Indian Ceramic Society **(**Taylor and Francis, USA), 73 (3), (2014), DOI: 10.1080/0371750X.2014.882246.
- P. Banerjee, S. Sarkar, T. Dey, M. Bakshi, S. Swarnakar, A. Mukhopadhayay, **S. Ghosh***, *Application of isolated bacterial consortium in UMBR for detoxification of textile effluent: comparative analysis of resultant oxidative stress and genotoxicity in catfish (Heteropneustes fossilis) exposed to raw and treated effluents*, Ecotoxicology (Springer) (2014) DOI 10.1007/s10646-014-1250-6.
- S. Sarkar, D. Sen, A.Sarkar, S. Bhattacharjee, , S. Bandopadhy, **S**. **Ghosh**, C. Bhattacharjee, *Modelling aspects of carbon dioxide capture technologies using porous contactors: a review*, Environmental Technology Reviews, **(**Taylor and Francis, USA) 3 (1), (2014) DOI: 110.1080/21622515.2014.919031.
- P. Bhattacharya, **S. Ghosh*** , S. Swarnakar, A. Mukhopadhyay, *Reuse of textile effluent for dyeing using combined technology of ceramic microfiltration and surface treated sugarcane bagasse: toxicity evaluation using Channa punctatus as model*, Desalination and Water Treatment (Taylor and Francis), (2014) doi: 10.1080/19443994.2014.887035, 1-21.
- S. Sarkar, **S. Ghosh**, P. Banerjee, A. Larbot, S. Cerneaux, S. Bandyopadhyay, C. Bhattacharjee, *Preparation and characterization of single layer ultrafiltration alumina membrane directly over porous clayalumina tubular and capillary support for textile effluent treatment*, Transactions of the Indian Ceramic Society, (Taylor and Francis), (2014) doi 10.1080/0371750X.2014.882246.
- P. Bhattacharya, K. Mallick, **S. Ghosh*** , P. Banerjee, A. Mukhopadhyay and S. Bandyopadhyay, *Algal biomass as potential biosorbent for reduction of organic load in grey water and subsequent reuse: effect on seed germination and enzyme activity*, Bioremediation Journal (Taylor and Francis) 18:1 (2014) 56-70.
- P. Bhattacharya, A. Roy, S. Sarkar, **S. Ghosh*** , S. Majumdar, S. Chakraborty, S. Mandal, A. Mukhopadhyay and S. Bandyopadhyay, *Combination technology of ceramic microfiltration and reverse osmosis for tannery wastewater recovery*, Water Resources and Industry (Elsevier) 3 (2013) 48–62.
- P. Bhattacharya, **S. Ghosh*** , A. Mukhopadhyay, *Combination technology of ceramic microfiltration and biosorbent for treatment and reuse of tannery effluent from different*

streams: response of defense system in Euphorbia sp., International Journal of Recycling of Organic Waste in Agriculture (Springer) 2 (2013) 19.

- P. Bhattacharya, **S. Ghosh**[*], A. Mukhopadhyay, *Efficiency of combined ceramic microfiltration and biosorbent based treatment of high organic loading composite wastewater: An approach for agricultural reuse*, Journal of Environmental Chemical Engineering (Elsevier) 1 (2013) 38–49.
- D. Sen, S. Sarkar, S. Bhattacharya, S. Bandyopadhyay, **S. Ghosh,** C. Bhattacharya, *Simulation of the effect of various operating parameters for effective separation of carbon dioxide into aqueous caustic soda solution in packed bed using Lattice Boltzman simulation*, Industrial and Engineering Chemistry Research (ACS publications) (2013) 52 (4), 1731-1742.
- P. Bhattacharya, S. Sarkar, **S. Ghosh**[*], S. Majumdar, A. Mukhopadhyay, S. Bandyopadhyay (2013): *Potential of ceramic microfiltration and ultrafiltration membranes for the treatment of gray water for an effective reuse*, Desalination and Water Treatment (Taylor and Francis) 51 (2013) 4323-4332.
- P. Bhattacharya, P. Banerjee, K. Mallick, **S. Ghosh**[*], S. Majumdar, A. Mukhopadhyay, S. Bandyopadhyay (2013): *Potential of biosorbent developed from fruit peel of Trewia nudiflora for removal of hexavalent chromium from synthetic and industrial effluent: Analyzing phytotoxicity in germinating Vigna seeds*, Journal of Environmental Science and Health, Part A: Toxic/Hazardous Substances and Environmental Engineering (Taylor and Francis) (2013) 48 (7) 706-719.
- S. Sarkar, **S. Ghosh**, G. Sahoo, N. Das, S. Bandyopadhyay, *Hydrophobic capillary membrane based on clay-alumina formulation for membrane distillation process,* Procedia Engineering 44 (2012) 1542, doi: 10.1016/j.proeng.2012.08.858
- P. Bhattacharya, K. Mallick, **S. Ghosh**[*], S. Majumdar, S. Bandyopadhyay, *Operational Performance of Ceramic Microfiltration Process for Reclamation of Cosmetic and Municipal wastewater*, International Journal of Biotechnology, Chemical Engineering & Environmental Engineering (2012) 1 (1) 57-63.
- P. Bhattacharya; **S. Ghosh**[*]; S. Sarkar; S. Majumdar; S. Bandyopadhyay, *Effectiveness of biosorption-assisted microfiltration process for treatment of domestic wastewater*. Bioremediation Journal (Taylor and Francis) 15 (2011) 206–217.
- Priyankari Bhattacharya, **Sourja Ghosh**[*], Swachchha Majumdar, Subrata Dasgupta and Sibdas Bandyopadhyay, *Treatment of textile dyehouse effluent using ceramic membrane based process in combination with chemical pretreatment*, (Accepted) J. Environ. Sci. Engg.
- Priyankari Bhattacharya, **Sourja Ghosh**[*], Swachchha Majumdar, Subrata Dasgupta and Sibdas Bandyopadhyay, *Biosorbent-assisted ceramic microfiltration process for treatment of herbal pharmaceutical wastewater with high organic loading*, Int. J. Environmental Technology and Management (2011) Vol. 14, Nos. 1/2/3/4, pp. 132-146.
- Priyankari Bhattacharya, Shatrupa Dutta, **Sourja Ghosh**[*], Swami Vedajnananda, Sibdas Bandyopadhyay, *Crossflow microfiltration using ceramic membrane for treatment of sulphur black effluent from garment processing industry*, Desalination (2010) 261, pp. 67-72.
- **Sourja Ghosh**, Priyankari Bhattacharya, Swachchha Majumdar, Subrata Dasgupta and Sibdas Bandyopadhyay, *Comparative study on treatment of kitchen-sink wastewater using single and multichannel ceramic Membrane*, Int. J. Environmental Technology and Management, (2010) Vol. 13, Nos. 3/4, pp. 336-347.
- **Sourja Chakraborty**, Jayanta K. Basu, Sirshendu De, and Sunando DasGupta, *Adsorption of Reactive Dyes from a Textile Effluent Using Sawdust as the Adsorbent*, Industrial Engineering and Chemistry Research, (2006) 45, pp. 4732-4741.

- A. Verma, **S. Chakraborty**, J.K. Basu, *Adsorption study of hexavalent chromium using tamarind hull-based adsorbents*, Separation and Purification Technology, (2006) 50 (3), pp. 336-341.
- **S. Chakraborty**, S. DasGupta, S. De and J.K. Basu, *Adsorption study for the removal of a basic dye: experimental and modeling*, Chemosphere, (2005) 58 (8), pp.1079-1086.
- **S. Chakraborty**, S. De, J.K. Basu and S. DasGupta, *Treatment of a textile effluent: application of a combination method involving adsorption and nanofiltration*, Desalination, (2005) 174 (1), pp. 73-85.
- **S. Chakraborty**, B.C. Bag, S. DasGupta, S. De and J.K. Basu, *Prediction of permeate flux and permeate concentration in nanofiltration of dye solution*, Separation and Purification Technology, (2004) 35 (2), pp. 141-152.
- K.M. Pastagia, **S. Chakraborty**, S. DasGupta, J.K. Basu and S. De, *Prediction of permeate flux and concentration of two component dye mixture in batch nanofiltration*, Journal of Membrane Science (2003), 218, pp. 195-210.
- **S. Chakraborty**, B.C. Bag, S. DasGupta, S. De and J.K. Basu, *Separation and fractionation of dye solution by nanofiltration*, Separation Science and Technology, (2003), 38 (1), pp. 219-235.
- **S. Chakraborty**, M. Purkait, S. DasGupta, S. De and J.K. Basu, *Nanofiltration of textile plant for color removal and reduction in COD*, Separation and Purification Technology, (2003), 31 (2), pp. 141-151.

Book Chapters

- M. Samanta, **S. Ghosh*** (2026). *Prospects of ceramic-based membranes in membrane bioreactor process for emerging contaminant remediation* (Chapter 17). In: R. Das, C. Bhattacharjee, M.P. Shah,(eds) Membrane Bioreactor Technology: An Innovative Water Treatment Process. Elsevier, 423-449, ISBN 9780443336614, https://doi.org/10.1016/B978-0-443-33661-4.00015-5.
- M. Naskar, P. Bhattacharya, **S. Ghosh***, S. Bandyopadhyay (2025). *Reuse and Renovation of Tannery Effluent Using Clay-Alumina Membrane*. In: S. Bandyopadhyay (eds) Application of Low Cost Ceramic Membranes in Wastewater Treatment. Materials Horizons: From Nature to Nanomaterials. Springer, Singapore. https://doi.org/10.1007/978-981-97-5842-5_4
- A.K. Rajak, M.K. Gagrai, **S. Ghosh*** (2025). *Application of Ceramic Membranes for Industrial Effluent Treatment and Resource Recovery* (Chapter 4). In: P. Banerjee, M.P. Shah (eds) Sustainable Effluent Treatment and Resource Recovery. ACS Symposium Series Volume 2, (1518) 61-90, eISBN: 9780841295599, DOI: 10.1021/bk-2025-1518.ch004
- P. Banerjee, **S. Ghosh**, S. Bandyopadhyay (2025). *Ecotoxicological and Reusability Aspects of Organic-Pollutant-Bearing Effluents Treated Using Ceramic Membrane Coupled Bioreactors*. In: S. Bandyopadhyay (eds) Application of Low Cost Ceramic Membranes in Wastewater Treatment. Materials Horizons: From Nature to Nanomaterials. Springer, Singapore. https://doi.org/10.1007/978-981-97-5842-5_12
- S. Kar, S. Kumar, **S. Ghosh***, S. (2024). Sustainable Management of Industrial Sludge Through Vermistabilisation Utilising Pollutants Loaded Spent Biochar Produced from the Wastewater Treatment Process. In: Kumar, V., Bhat, S.A., Verma, P., Kumar, S. (eds) Recent Trends in Management and Utilization of Industrial Sludge. Springer, Cham. https://doi.org/10.1007/978-3-031-58456-5_5

- A. Ray, S. Majumdar, **S. Ghosh*** (2025) Sugarcane industry effluents: generation, characteristics, impacts and applications for biobased product recovery in a biorefinery (Chapter 11). In: Mu. Naushad, Shamsul Rahman Mohamed Kutty, Md. Sohrab Hossain, Abdullahi Haruna Birniwa, Ahmad Hussaini Jagaba. (eds.) Biorefinery of Industrial Effluents for a Sustainable Circular Economy, Elsevier, Pages 159-168, ISBN 9780443218019, https://doi.org/10.1016/B978-0-443-21801-9.00011-2.
- S. Banerjee, S. Gupta, A. Dalal, T. Hazra, M.P. Shah, **S. Ghosh** (2023). Integration of Membrane Technology in Microalgal Photobioreactor for Biodiesel Production Along with Industrial Wastewater Remediation: A Green Approach. In: Shah, M.P. (eds) Biorefinery for Water and Wastewater Treatment. Springer, Cham. https://doi.org/10.1007/978-3-031-20822-5_14
- L. Ramrakhiani, **S. Ghosh***, S. Majumdar (2022). Emerging Contaminants in Water and Wastewater: Remediation Perspectives and Innovations in Treatment Technologies. In: Kumar, M., Mohapatra, S. (eds) Impact of COVID-19 on Emerging Contaminants. Springer Transactions in Civil and Environmental Engineering. Springer, Singapore. https://doi.org/10.1007/978-981-19-1847-6_11
- A.K. Mandal, **S. Ghosh**, B. Haldar, S. Nag, S. Mandal (2023) Waste incorporation in glass: A potential alternative and safe utilization (Chapter 7). In: Editor(s): Sarika Verma, Raju Khan, Medha Mili, S.A.R. Hashmi, Avanish Kumar Srivastava (eds.) Advanced Materials from Recycled Waste, Elsevier, Pages 133-154, ISBN 9780323856041, https://doi.org/10.1016/B978-0-323-85604-1.00012-3.
- D. Mukherjee, **S. Ghosh*** (2022) Ceramic Membranes in Water Treatment: Potential and Challenges for Technology Development In: Siddhartha Moulik, Aditi Mullick, Anirban Roy (eds.) Sustainable Watb er Treatment: Advances and Technological Interventions, Wiley, https://doi.org/10.1002/9781119480075.ch8

Patents:

- *A method for effective utilization of tannery solid waste to develop usable glass product*, Mandal A.K., Halder A., Ramrakhiani L., **Ghosh S.**, Sen R., (Indian Patent: 435493; granted on 26.06.2023)
- *A Method for safe disposal of arsenic rich sludge obtained from treatment of contaminated groundwater and its utilization in developing heat protective glass,* Mandal A.K., **Ghosh S.**, (Indian Patent: 0199NF2019, granted on December 22, 2021; 71.068; Chilean Patent Office)
- *Process for Management of Waste from Jute Processing Industry as Biographene Based Zinc Micro-Fertilizer for Crops and Soil Health Improvement*, Ramrakhiani L., **Ghosh S.,** Murugadoss V., Majumdar S., Provisional patent application no.: 202511083620 dated 02/09/2025
- *Sustainable process for preparation of textile waste derived biographene and its application in elastomeric composites*, Ramrakhiani L., Ghosh K., **Ghosh S.,** Thomas S., Bera S., Maria H.J., Majumdar S., Provisional patent application no.: 0077NF2026/IN dated 30/03/2026