Publications:

Mr. Swachchha Majumdar
Senior Principal Scientist
Water Technology Division
Phone: (033) 23223252
FAX: +91-33-24730957
E-mail: swachchha@cgcri.res.in

Summary

- In SCI Journals:

Sr. No.	*Title of publication*
1.	"Toluene degradation in Biofilter-Sequencing the Nutrient addition" Journal of Scientific & Industrial Research, Vol 62, March 2003, S. Majumdar, A.S. Baby & Ajit Haridas
2.	"Treatment of sulphide containing wastewater with sulphur recovery in a novel reverse fluidized loop reactor (RFLR)", Water Research, 39 (2005) 639–647, B. Krishnakumar, Ajit Haridas & S. Majumdar
3.	"Ceramic Membrane and Water Purification" , Science and Culture, Vol.71, no 5-6, May-June, 2005, Page 159- 157, S.N. Roy, Tanmoy Dey, M. Majumder, S. Majumdar, B.P. Ghosh, S. Bandyopadhyay & H.S. Maiti
4.	"Biosorbent-assisted ceramic microfiltration process for treatment of herbal pharmaceutical wastewater with high organic loading", Int. J. Environmental Technology and Management, Vol. 14, Nos. 1/2/3/4,(2011) 132-146, Priyankari Bhattacharya, Sourja Ghosh, Swachchha Majumdar, Subrata Dasgupta, Sibdas Bandyopadhyay
5.	"Comparative study on treatment of kitchen-sink wastewater using single and multichannel ceramic membrane", Int. J. Environmental Technology and Management, Vol. 13, Nos. 3/4, (2010) 336-347, Sourja Ghosh, Priyankari Bhattacharya, Swachchha Majumdar, Subrata Dasgupta, Sibdas Bandyopadhyay
6.	Combination technology of ceramic microfiltration and reverse osmosis for tannery wastewater recovery, Priyankari Bhattacharya, Subhendu Sarkar, Sourja Ghosh, Swachchha Majumdar, Sanjay Chakraborty, Samir Mandal, Aniruddha Mukhopadhyay, Sibdas Bandyopadhyay, Water Resource and Industry, 3 (2013), 48-62
7.	Potential of ceramic microfiltration and ultrafiltration membranes for treatment of grey water for an effective reuse, Priyankari Bhattacharya, Sandeep Sarkar, Sourja Ghosh, Swachchha Majumdar, Aniruddha Mukhopadhyay, Sibdas Bandyopadhyay, Desalination and water treatment, DOI 10.1080/19443994.2013.770198
8.	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, Priyankari Bhattacharya, Priya Banerjee, Kwonit Mallick, Sourja Ghosh, Swachchha Majumdar, Aniruddha

	Mukhopadhyay, Sibdas Bandyopadhyay, Journal of Environmental Science and Health Part A Toxic/Hazardous Substances & Environmental Engineering 01/2013; 48(7):706-19.
9.	Ceramic membrane based microfiltration for treatment of highly contaminated tannery wastewater, Priyankari Bhattacharya, Sourja Ghosh, Swachchha Majumdar, Somendra Nath Roy, Sibdas Bandyopadhyay, Environmental engineering and management journal 10/2012
10.	As(III) oxidation by MnO2 coated PEEK-WC nanostructured capsules., Alessandra Criscuoli, Swachchha Majumdar, Alberto Figoli, Ganesh C Sahoo, Patrizia Bafaro, Sibdas Bandyopadhyay, Enrico Drioli, Journal of hazardous materials 11/2011; 211-212:281-7.
11.	Effectiveness of Biosorption-Assisted Microfiltration Process for Treatment of Domestic Wastewater, Priyankari Bhattacharya, Sourja Ghosh, Subhendu Sarkar, Swachchha Majumdar, Sibdas Bandyopadhyay, Bioremediation Journal 10/2011; 15(4):206-217
12.	Operational Performance of Ceramic Microfiltration Process for Reclamation of Cosmetic and Municipal wastewater, P. Bhattacharya, K. Mallick, S. Ghosh, S. Majumdar, S. Bandyopadhyay, International Journal of Biotechnology, Chemical and Environmental Engineering (IJBCEE). 01/2011
13.	Treatment of textile dyehouse effluent using ceramic membrane based process in combination with chemical pretreatment, Priyankari Bhattacharya, Sourja Ghosh, Swachchha Majumdar, Sibdas Bandyopadhyay, J. Environmental Sci. and Engg. 01/2011
14.	Ceramic microfiltration process for treatment of herbal pharmaceutical wastewater with high organic strength, Priyankari Bhattacharya, Sourja Ghosh, Swachchha Majumdar, Subrata Dasgupta, Sibdas Bandyopadhyay, Int. J. Environmental Technology and Managenment. 01/2011; 14(1/2/3/4):132-146
15.	Clarification of tannery wastewater from beam house operation using ceramic MF membrane , Ganesh C. Sahoo, Sourja Ghosh, Swachchha Majumdar and Sibdas Bandyopadhyay, Applied Science and Advanced Materials International, Vol. 1 (1), September 2014, pp. 12 -15
16.	Removal of reactive dyes using a high throughput-hybrid separation process, Sankha Karmakar, Mrinmoy Mondal, Sourja Ghosh, Sibdas Bandyopadhyay, Swachchha Majumdar & Sirshendu De, Desalination and Water Treatment (2015) 1-17, DOI:10.1080/19443994.2015.1033762
17.	Development of hydrophobic clay–alumina based capillary membrane for desalination of brine by membrane distillation, Rakhi Das, Kartik Sondhi, Swachchha Majumdar, Sandeep Sarkar, J. Asian Ceram. Soc. (2016), http://dx.doi.org/10.1016/j.jascer.2016.04.004
18.	An ecofriendly approach towards remediation of high lead containing toxic industrial effluent by a combined biosorption and microfiltration process: a total reuse prospect, Animesh Jana, Priyankari Bhattacharya, Sandeep Sarkar, Swachchha Majumdar & Sourja Ghosh, Desalination and Water Treatment, DOI: 10.1080/19443994.20 15.1004596
19.	Green synthesis of a-Fe2O3 nanoparticles for arsenic(V) remediation with a novel aspect for sludge management, Debarati Mukherjee, Sourja Ghosh, Swachchha Majumdar, K. Annapurna, Journal of Environmental Chemical Engineering, 4(2016),639-650, http://dx.doi.org/10.1016/j.jece.2015.12.010
20.	Synthesis of bentonite clay based hydroxyapatite nanocomposites cross-linked by glutaraldehyde and optimization by response surface methodology for lead

	removal from aqueous solution, Piyali Roy Choudhury, Priyanka Mondal and Swachchha Majumdar, RSC Advances 2015,5, 100838-100848 DOI: 10.1039/C5RA18490H
21.	Anabaena sp. mediated bio-oxidation of arsenite to arsenate in synthetic arsenic (III) solution: Process optimization by response surface methodology, A. Jana, P. Bhattacharya, S. Swarnakar, S. Majumdar, S. Ghosh, Chemosphere (Elsevier), (2015) DOI: 10.1016/j.chemosphere.2015.07.055. Vol 138, Pages 682–690
22.	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 Sep 20;180(1):41-78, DOI: 10.1007/s12010-016-2083-y
23.	Industrial waste derived biosorbent for toxic metal remediation: Mechanism studies and spent biosorbent management, Lata Ramrakhiani, Avik Halder, Abhradeep Majumder, Ashis K. Mandal, Swachchha Majumdar, Sourja Ghosh, Chemical Engineering Journal, 308(2017) 1048-1064, dx.doi.org/10.1016/j.cej.2016.09.145
24.	Development of graphene oxide/chitosan composite membrane on ceramic support for atrazine remediation by MBR process, Debarati Mukherjee, Ashmita Dewanjee, Sourja Ghosh & Swachchha Majumdar, Environmental Science and Pollution Research, (2018) 25:33334-33352 DOI 10.1007/s11356-018-3255-9, doi: 10.1007/s11356-018-3255-9
25.	Energy efficient harvesting of Arthrospira sp using ceramic membranes: analyzing the effect of membrane pore size and incorporation of flocculant as fouling control strategy, Jana A, Ghosh S and Majumdar, Journal of Chemical Technology and Biotechnology, 2018, 93 (4), 1085-1096. (IF : 3.135), https://doi.org/10.1002/jctb.5466
26.	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, Dey S, Roy SN, Majumdar S, Ghosh S and Sahoo GC, Transactions of the Indian Ceramic Society, 2019, 78 (4) 187-194. (IF : 1.014
27.	Utilization of multi-metal laden spent biosorbent for removal of glyphosate herbicide from aqueous solution and its mechanism elucidation, Ramrakhiani L, Ghosh S, Mandal AK and Majumdar S Chemical Engineering Journal, 2019, 361, 1063-1077. (IF : 6.735)
28.	Synthesis and characterization of alpha alumina-natural apatite based porous ceramic support for filtration applications, youseff Guesmi, Ridha Lafi, Hasan Agougui, Mahajoub Jabli, Abdallah Oun, Swachchha Majumdar, Amor Hafiane, Material Chemistry and Physics, 239(2020) 122067
29.	Synthesis of ceramic ultrafiltration membrane and application in membrane bioreactor process for pesticide remediation from wastewater, Mukherjee D, Bhattacharya P, Jana A, Bhattacharya S, Sarkar S, Ghosh S, Majumdar S and Swarnakar S, Process Safety and Environmental Protection, 116, 22-33. (IF : 3.441), https://doi.org/10.1016/j.psep.2018.01.010
30.	Performance investigation of Pb(II) removal by synthesized hydroxyapatite based ceramic ultrafiltration membrane: Bench scale study, Piyali Choudhury, Priyanka Mondal, Swachchha Majumdar, Sudeshna Saha, Ganesh C Sahoo, Chemical Engineering Journal, (IF : 6.735) Volume 355, pp 510-519, DOI: 10.1002/jctb.5466.
31.	Roychoudhury, Piyali, Mondal, Priyanka, Majumdar, Swachchha, Saha,

	Sudeshna, Sahoo, Ganesh C. , Preparation of ceramic ultrafiltration membrane using green synthesized CuO nanoparticles for chromium (VI) removal and optimization by response surface methodology, Journal of cleaner production (IF: 6.395), Volume 203, Pages 511-520, https://doi.org/10.1016/j.jclepro.2018.08.289
32.	Mukherjee D, Kar S, Mandal A, Ghosh S and Majumdar S, 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, Impact Factor 4.029, 39, 3235–3246, https://doi.org/10.1016/j.jeurceramsoc.2019.04.008
33	Bullen JC, Torres-Huerta A, Salaun P, Watson JS, Majumdar S, Vilar R and Weiss DJ, Portable and rapid arsenic speciation in synthetic and natural waters by an As(V)-selective, chemisorbent, validated against anodic stripping voltammetry, Water Research, 2020, 175, Art No. 115650. (IF : 7.913)

• In Conference Proceedings:

1. Invited Lecture titled " Buoyant Filter Bioreactor for treatment of complex wastewater" at a Seminar on " Environmental Management in Industries", March 26-27, 2002 organized by Indian Institute of Chemical Engineers, Kochi Regional Centre, Kerala

2. " Toluene removal from Air using a Coir Pith Biofilter" , S. Majumdar, A.S. Baby & Ajit Haridas, at CHEMCON 2001 at CLRI, Chennai, the 54th Annual Session of Indian Institute of Chemical Engineers, December 19-21, 2001.

3. "Acidic biofilter for the removal of hydrogen sulphide from air" , M. S. Anjali, S. Majumdar, Ajit Haridas During National Seminar "Biological Treatment of Wastewater & Air" held at RRL Trivandrum, 28-29 August, 2003

4. " Metabolic Heat Generation in H2S removing biofilter", Vanal Pazhani, Ajit Haridas & S. Majumdar During National Seminar " Biological Treatment of Wastewater & Air" held at RRL Trivandrum, 28-29 August, 2003

5. "Arsenic & Iron removal from groundwater in rural areas by Ceramic Microfiltration Membrane – a community model approach initiated by CGCRI" invited lecture at National Seminar on "Rural & Infrastructure Development – Vision 2020" Organised by Alumni Association, NCE, Bengal and Jadavpur University on 19.02.05

6. "Safe Drinking Water Production by Ceramic Membrane – A CGCRI Initiative" for National Science Day lecture at Central Glass & Ceramic Research Institute, Kolkata on 28.02.05

7. "Arsenic & Iron removal from groundwater in rural areas by Ceramic Microfiltration Membrane – a community model approach initiated by CGCRI" in "The National Workshop on Water Management with Focal Theme on Assessment of Current & Futuristic Water Quality Standards in India" organized by NEERI, Nagpur at CGCRI Kolkata during September 20 -21, 2005.

8. Invited lecture titled "Arsenic & Iron removal from groundwater in rural areas by Ceramic Microfiltration Membrane – a community model approach initiated by CGCRI" in National Seminar organized by "Water & Wastewater Management" Organised by Society of Civil Engineer and Civil Engineering Department, Jadavpur University on 26th August, 2006.

9. "Ceramic membrane modules for drinking water purification" , Sibdas Bandyopadhyay, Swachchha Majumdar, Himadri Sekhar Maiti at 9th International Conference on Inorganic Membranes (ICIM9) at Lillehammer – Norway, June 25-29, 2006

10. S Ghosh, G C Sahoo, S Majumdar & S Bandyopadhyay; "Ceramic Membrane based System for Colour Removal of Dyebath Effluent from Textile Industry", 8th International Conference on Catalysis in Membrane Reactors (ICCMR8), organized by Central Glass & Ceramic Research Institute, Kolkata from 18 – 21 December, 2007.

11. G C Sahoo, S Ghosh, S Majumdar & S Bandyopadhyay; "Fouling and Regeneration of Low-cost Ceramic Membranes during Wastewater Treatment from Beam House Operation of Tannery Industry", 8th International Conference on Catalysis in Membrane Reactors (ICCMR8), organized by Central Glass & Ceramic Research Institute, Kolkata from 18 – 21 December, 2007.

12. Presented a paper titled "Using ceramic membrane based technology for simultaneous removal of Arsenic and Iron from Groundwater – A case study on NGO Model and SSI model for community supply of quality drinking water" at Indian Chemical Engineering Congress – CHEMCON 2007, Diamond Jubilee Annual Conference of Indian Institute of Chemical Engineers, Organised by Indian Institute of Chemical Engineers at Heritage Institute of Technology, Kolkata during Dec 27-30, 2007.

13. G C Sahoo, S Ghosh, S Majumdar & S Bandyopadhyay; "Regeneration of Fouled Ceramic Membranes during Wastewater Treatment from Beam House Operation", 42nd Leather Research Industry Get-Together (LERIG), organized by Central Leather Research Institute (CLRI), Chennai from 28-30 January, 2008.

14. Presented a poster tilted "Development of High Rate Anaerobic Membrane Bio Reactor (MBR) for Complex Wastewater Treatment" in the Internal Seminar organized by CGCRI on April 5th, 2008.

15. Studies on utilization of textile dyehouse effluent using ceramic membrane based process, Sourja Ghosh, Priyankari Bhattacharya, Swachchha Majumdar and Sibdas Bandyopadhyay, National Seminar 'Wealth from Waste', 5-6th September, 2009 organized by National Environmental Science Academy, West Bengal Chapter.

16. Treatment of kitchen wastewater using ceramic membrane based process, Priyankari Bhattacharya, Sourja Ghosh, Swachchha Majumdar and Sibdas Bandyopadhyay, National Seminar 'Wealth from Waste', 5-6th September, 2009 organized by National Environmental Science Academy, West Bengal Chapter.

17. Treatment of Domestic Wastewater Using Ceramic Membrane Based Process, Madhubanti Chatterjee, Priyankari Bhattacharya, Sourja Ghosh, Swachchha Majumdar and Sibdas Bandyopadhyay, National Conference on Water: Membranes & Other Purification Technologies "WATER" organized jointly by Indian Membrane Society and Indian Water Works Association, Vadodara Local Centre, January 9-10, 2010, **awarded 2nd prize.**

18. Study on municipal wastewater treatment by microfiltration in combination with chemical coagulation, Debdipto Mukherjee, Priyankari Bhattacharya, Sourja Ghosh Swachchha Majumdar and Sibdas Bandyopadhyay, National Conference on Water: Membranes & Other Purification Technologies "WATER" organized jointly by Indian Membrane Society and Indian Water Works Association, Vadodara Local Centre, January 9-10, 2010, **awarded 1st prize.**

19. Potential of Ceramic Membrane Bioreactor for Grey water Treatment, Mahua Das, Priyankari Bhattacharya, Sourja Ghosh, Sibdas Bandyopadhyay, Swachchha Majumdar, International Workshop on

"Advances in Membrane Technology for Water Treatment, Clean Energy and Environment", December 7-9, 2009.

20. Study on treatment of tannery wastewater from common effluent treatment plant using ceramic membrane based microfiltration, Priyankari Bhattacharya, Swachchha Majumdar, Sibdas Bandyopadhyay, Sourja Ghosh, International Workshop on "Advances in Membrane Technology for Water Treatment, Clean Energy and Environment", December 7-9, 2009.

21. Integration of microfiltration with chemical coagulation for advanced treatment of municipal wastewater, Debdipto Mukherjee, Priyankari Bhattacharya, Sourja Ghosh, Swachchha Majumdar and Sibdas Bandyopadhyay, International Workshop on "Advances in Membrane Technology for Water Treatment, Clean Energy and Environment", December 7-9, 2009.

22. Ceramic microfiltration process for grey water treatment, Madhubanti Chatterjee, Priyankari Bhattacharya, Sourja Ghosh, Swachchha Majumdar and Sibdas Bandyopadhyay, International Workshop on "Advances in Membrane Technology for Water Treatment, Clean Energy and Environment", December 7-9, 2009.

23. Toxicity reduction by Arsenic (III) oxidation to Arsenic (V) in groundwater in Arsenic removal plants with special reference to membrane contactor, Swachchha Majumdar, The 4th Asian Conference on Environmental Mutagens, December 10–12, 2014, CSIR Indian Institute of Chemical Biology.