DEPARTMENT OF CHEMISTRY

Name : Dr.M. KUMAR

Designation : Professor

Email : kumar.chem@sairamit.edu.in

Qualification : M.Sc., M.Phil., Ph.D.

Specialization : CHEMISTRY

Research Interest : Polymer Composites and nano materials

Experience in years : **Teaching** UG 125 PG 1 **Industry** -

No. of Workshop/Conferences/ FDP attended : Workshop 3 Conferences 6 FDP 2

No. of Workshop/Conferences/ FDP Organized : Workshop 1 Conferences 3 FDP -

Professional Membership	
Publications	International Journal: 25
	National Journal : 03
Research Funded Projects	**AERB** (CSRP/PR OJ.No.65/ 06/2017) as Co-Investigator in **37.93 Lacks**
Patents	-
Achievements	-
Any Other Information	Anna University recognized supervisor to guide Ph.D. scholars Guideship Number: 2770032

List of Publications:-

25. **M. Kumar,** R. Tamilrasan, Geetha palani, M. Dharmendirakumar, Herri Trilaksanna, A novel adsorbent for the removal of chromium form aqueous solution by *Acacia Fumosa* seed shell activated carbon. Journal of the Indian Chemical Society, 101 (2024) 101330. **Impact Factor: 3.2**.

24. **Kumar Muthaiyan,** Geetha Palani, Herri Trilaksana, M Gurumoorthy, G.K. Ayyadurai & Arumugaprabu Veerasimman. Investigation on ferrite immobilized alginate magnetic nanocomposite beads for the adsorptive removal of Prussian blue. Anal. Chem. Lett. 14 (5) 2024 pp 708 – 722. **Impact Factor: 1.0**.

23. Revathi M., Dharmendira Kumar M., Geetha Palani**, Kumar M.,** Herri Trilaksanna & Shanmugharaj A. M. Synthesis and characterisation of a novel silica—CaO/ TPA catalyst for biodiesel production. BioFuels. 10.1080/17597269.2025.2456409. **Impact Factor: 2.2**.

22. M Gurumoorthy, Geetha Palani, Herri Trilaksanna **& M Kumar. T**he structural, morphological, optical, thermal and magnetic properties of MnFe2O4 nanoparticles. Anal. Chem. Lett. 14 (6) 2024 pp 848 – 861. **Impact Factor: 1.0**.

21. R. Manimegalai, S. Sendhilnathan, V. Chithambaram, **M. Kumar** (2023) Experimental investigation on ferrofluid properties of Cd doped Co-Zn ferrites. Digest Journal of Nanomaterials and Biostructures, 18, 547-555. **Impact Factor: 0.899**.

20. Nimel Sworna Ross, Ganesh M,, M.Belsam Jeba Ananth, **M. Kumar**, 2023 Ritu Rai, Munish Kumar Gupta, Mehmet Erdi Korkmaz, Development and potential use of MWCNT suspended in vegetable oil as a cutting fluid in machining of Monel 400**,** *Journal of molecular liquids,* 382, 121853. **Impact Factor: 6.633**.

19. R. Tamilalagan, R. Tamilarasan, **M. Kumar,** V.Chithambaram (2022) Senegalia Catechu activated carbon incorporated Ba-alginate composite beads for the removal of Safranine B: modeling studies, Digest Journal of Nanomaterials and Biostructures, 17, 2022, p. 1369-1384. **Impact Factor: 0.899**.

18. Padmanaban. R, **Kumar. M**, and Dharmendirakumar. M (2021) Adsorption modeling studies for the removal of rose bengal dye from aqueous solutions using a natural adsorbent perlite, Indian Journal of Chemical Technology. 28, 604- 611. **Impact Factor: 0.57**.

17. **M. Kumar**, R. Tamilarasan and G. Vijayakumar, 2019. Synthesis, characterization and experimental studies of nano Zn-Al-Fe3O4 blended alginate/Ca beads for the adsorption of Rhodamin B. Journal of Polymers and the Environment. 27 (1), 106-117. **Impact Factor: 3.667**.

16. D. Jayganesh, R. Tamilarasan and **M. Kumar**, 2018. Marine Seaweed Gracilaria Corticata Activated Carbon used for the Removal of Safranin Dye : Adsorption Modelling Studies. Journal of Marine Science and Technology. (**Accepted Manuscript**). **Impact Factor: 1.802**.

15. D. Jayaganes, **M. Kumar**, R. Tamilarasan. 2017. Equilibrium and Modelling Studies for the Removal of Crystal Violet Dye from aqueous solution using eco-friendly activated carbon prepared from Sargassm wightii seaweeds. Journal of Materials and Environmental Science. 8 (4), 1508-1517. **Impact Factor: 0.23**.

14. D. Jayaganes, **M. Kuma**r, R. Tamilarasan. 2017. Preparation of eco-friendly and low-cost activated carbon from Gracilaria corticata seaweeds for the Removal of Crystal Violet Dye from aqueous solution: Equilibrium and Modelling Studies. Chiang Mai Journal of Science. 45(2) : 1039-1051. **Impact Factor: 0.523.**

13. **M. Kumar**, V. Sureshkumar, R. Tamilarasan. 2016. Biosorption of Victoria blue using *Zizyphus oenoplia* seed: Evaluation of

modeling, experimental, FTIR and SEM studies. IEEE Proceedings of ICETETS, Kings College of Engineering, Thanjavur, India. 24-26. 10.1109/ICETETS.2016.7603126

12. M. Bhuvaneswari, S. Sendhilnathan, **M. Kumar,** R. Tamilarasan, N.V., Giridharan. 2015. Synthesis, investigation of structural and electrical properties of cobalt doped mn-zn ferrite nanocrystalline powders. Material Letters Poland. 34 (2), 344–353. **Impact Factor: 1.022.** DOI: 10.1515/msp-2016-0046.
11. **M. Kumar**, R. Tamilarasan, G. Arthanareeswaran, & F. Ismail, 2015. „Optimization of methylene blue using Ca^{2+} and Zn^{2+} bio-polymer hydrogel beads: A comparative study", Ecotoxicology and environmental safety". Vol. 121, 2015, Pages 164-173. **Impact Factor: 6.291.** doi:10.1016/j.ecoenv.2015.04.007.
10 **Kumar M**, Tamilarasan R, Vijayakumar G, Mukeshkumar, P.C & Sendhilnathan, S, 2015. Biosorption of aniline blue from aqueous solution using a novel biosorbent *Zizyphus oenoplia* seeds: Modeling studies, Polish Journal of Chemical Technology. 17, 3, 70 - 77. **Impact Factor: 1.125.** DOI: 10.1515/pjct-2015-0052
9. Saranya, R, **Kumar, M**, Tamilarasan, R, Ismail A. F. & Arthanareeswaran, G. 2015, Functionalised activated carbon modified polyphenylsulfone composite membranes for adsorption enhanced phenol filtration, Journal of Chemical Technology and Biotechnology, Vol. 91, Issue 3, 2016, Pages 748-761, **Impact Factor: 3.174**. DOI: 10.1002/jctb.4641
8. **Kumar, M** & Tamilarasan, R. 2014, Removal of Victoria Blue using Prosopis juliflora bark carbon: Kinetics and Thermodynamic modeling Studies, Journal of Material and Environmental Science, vol. 5, no. 2, pp. 510-519. **Impact Factor: 0.23.**
7. **Kumar, M** & Tamilarasan, R.. 2013, „Modeling studies for the removal of methylene blue from aqueous solution using Acacia Fumosa seed shell activated carbon", Journal of Environmental Chemical Engineering, vol. 1, pp. 1108-1116. **Impact Factor: 5.909.** doi:10.1016/j.jece.2013.08.027
6. **Kumar, M** & Tamilarasan, R. 2013, „Kinetics and equilibrium data modeling studies for the sorption of chromium by Prosopis Juliflora bark carbon", Arabian Journal of Chemistry, Vol. 10, 2017, Pages S1567-S1577. **Impact Factor: 5.165**. doi:10.1016/j.arabjc.2013.05.025
5. **Kumar, M,** Tamilarasan, R & Sivakumar, V. 2013, „Adsorption of Victoria blue by carbon/Ba/Alginate beads: Kinetics, thermodynamics and Isotherm studies", Carbohydrate Polymers, vol. 98, no. 1, pp. 505-513. **Impact Factor: 9.314**. doi:10.1016/j.carbpol.2012.11.076
4. **Kumar, M** & Tamilarasan, R. 2013, „Modeling of experimental data for the adsorption of methyl orange from aqueous solution using a low cost activated carbon prepared from Prosopis juliflora", Polish Journal of Chemical Technology, vol. 15, no. 2, pp. 29-39. **Impact Factor: 1.125**. DOI: 10.2478/pjct-2013-0021
3. **Kumar, M** & Tamilarasan, R. 2013, „Kinetics and Equilibrium Studies on the Removal of Victoria Blue Using Prosopis juliflora Modified Carbon/Zn/Alginate Polymer Composite Beads", Journal of Chemical Engineering Data, vol. 58, no. 3, pp. 517-527. **Impact Factor: 2.694.** DOI**:** 10.1021/je3012309
2. **Kumar, M** & Tamilarasan, R. 2013, „Modeling studies: Adsorption of aniline blue by using Prosopis Juliflora carbon/Ca/alginate polymer composite beads", Carbohydrate Polymers, vol. 92, no. 2, pp. 2171-2180. **Impact Factor: 9.314**. doi:10.1016/j.carbpol.2012.11.076
1. **Kumar**, **M.** Sridevi K. & Tamilarasan, R. 2012, „Assessment of cadmium and its impact on the uptake efficiency of Phosphate fertilizers by *Amaranthus tricolor*", Journal of Material and Environmental Science, 3(5), 947-954. **Impact Factor: 0.23**.

List of Patent : NIL

Workshop / Conferences / FDP Attended:-

1. **Kumar, M** & Tamilarasan, R 2014, 'Adsorption studies on the removal of methylene blue using Ca^{2+} and Zn^{2+} alginate hydrogel beads: A comparitivr study', ICGTEPC-2014, International Conference, NIT-Tiruchirapalli, Tiruchirapalli-15.
2. **M. Kumar**, V. Sureshkumar, R. Tamilarasan. 2016. Biosorption of Victoria blue using *Zizyphus oenoplia* seed: Evaluation of modeling, experimental, FTIR and SEM studies. IEEE Proceedings of ICETETS, Kings College of Engineering, Thanjavur, India. 24-26.
3. **Muthaiyan Kumar**, Rengasamy TamilarasanandVadivelu Sivakumar, Aniline blue optimization using Zn-Biopolymeric beads encapped with ProsopisJuliflora activated carbon, International Conference on Advanced Polymers for Science and Technology (APST-2016), VIT- Vellore.

National Conference

1. **Kumar**, **M** and Tamilarasan, R, "Kinetics and Equilibrium Studies on Adsorption of dye by Prosopis juliflora bark carbon" UGC- sponsored National Conference, Oral session, December-2012, organized by Presidency College, Chennai.
2. **Kumar**, **M,** TNSCHE-Sponsored state level Seminar. "Promises and challenges of using nanomaterials in clinical application", Seethalakshmi Ramaswamy College, Tiruchirapalli.
3. **Kumar, M** & Tamilarasan, R 2011, 'Kinetics and equilibrium studies on the adsorption of methylene blue by Prosopis Juliflora bark carbon', NCAC-2011 (AICTE sponsored Conference), Eswari Engineering College, Chennai.

Workshop / Conferences / FDP Organized:-

1. Organized 8th National Level National conference NCAC-2019 (AICTE sponsored Conference), Eswari Engineering College, Chennai in 2016.
2. Organized 9th National Level National conference NCAC-2019 (AICTE sponsored Conference), Eswari Engineering College, Chennai in 2017.
3. Organized 10th National Level National conference NCAC-2019 (AICTE sponsored Conference), Eswari Engineering College, Chennai in 2018.
4. Organized 1st National Level National seminar on Earth and Environmental Sciences in the context of Climate Change (EESCC'18), DHANALAKSHMI COLLEGE OF ENGINEERING, Tamabram, Chennai – 601301.

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