

## বিসিএসআইআর-এর পাবলিকেশন তালিকা: ২০২২

বর্তমানে বিসিএসআইআর-এ মোট ৩৭৮ জন বিজ্ঞানী এবং রিসার্চ ইঞ্জিনিয়ার কর্মরত রয়েছেন। ২০২২ সালে তাঁরা সম্মিলিতভাবে মোট ৯৩টির অধিক পিয়ার-রিভিউ সায়েন্সিফিক প্রবন্ধ, বুক চ্যাপ্টার এবং প্রসেডিংস পাবলিশ করেছেন যার মধ্যে ৮৭টি স্কোপাস ইনডেক্সড প্রেস্টিজিয়াস জার্নাল। নিচে নির্বাচিত প্রকাশনার তালিকা (প্রকাশক, ইন্ডেক্সিং, ইমপ্যাক্ট ফ্যাক্টর সহ) দেওয়া রয়েছে।

## Summary of Achievements: 2022

1. *Number of Patent = 1*
2. *Number of Process = 10*
3. *Number of Scopus Index Publication = 87*
4. *Average Impact factor (IF) of the journal article = 2.46*
5. *Number of Peer-reviewed (Scopus and SCI, SCIE, ESCI & Addi. WoS Index) Publications = 93+*

Laboratory-wise publication information is listed below-

## Selected Publication List: 88

### Dhaka Lab: 16

1. Rabeya Binta Alam, Md. Hasive Ahmad, **Syed Farid Uddin Farhad**, and Muhammad Rakibul Islam, 'Significantly improved dielectric performance of bio-inspired gelatin/single-walled carbon nanotube nanocomposite', **Journal of Applied Physics** (SCI & Scopus Index Q2 Journal, **IF: 2.546**), DOI: <https://doi.org/10.1063/5.0077896>
2. Md Alauddin Hossain, **Syed Farid Uddin Farhad**, **Nazmul Islam Tanvir**, Jang Hyo Chang, Mohammad Atiqur Rahman, Tooru Tanaka, Qixin Guo, Jamal Uddin and Md Abdul Majed Patwary, 'Facile synthesis of Cu<sub>2</sub>O nanorods in the presence of NaCl by successive ionic layer adsorption and reaction method and its characterizations,' Royal Society Open Science (SCIE & Scopus Index Q1 Journal, IF: 2.93), DOI: <https://doi.org/10.1098/rsos.211899>
3. Tarek Hasan, Esrat Jahan, **Khondoker Shahin Ahmed**, **Hemayet Hossain**, Syed Mumtahir Mannan Siam, Nusrat Nahid, Tanoy Mazumder, Md. Sadikur Rahman Shuvo, A F M Shahid Ud Daula, 'Rutin hydrate and extract from *Castanopsis tribuloides* reduces pyrexia via inhibiting microsomal prostaglandin E synthase-1', *Biomedicine & Pharmacotherapy*, Elsevier (SCI and Scopus Index Q1 Journal, **IF: 6.52**), DOI: <https://doi.org/10.1016/j.biopha.2022.112774>
4. Quazi Md. Mosaddeque Hossen, S. M. Badier Rahman, Md. Nazibur Rahman, Muhammad Delwar Hossain Sarker, Md. Moniruzzaman, Md. Zablul Tareq, Md. Abu Sadat, **Kazi Md. Yasin Arafat**, **Md. Sarwar Jahan** & Md. Samiul Haque, 'Development of early flowering, short life-spanned jute (*Corchorus* spp.) mutant via ethyl methane sulfonate mutagenesis', *Journal of Crop Science and Biotechnology*, Springer (Scopus Index), DOI: [DOIhttps://doi.org/10.1007/s12892-022-00146-4](https://doi.org/10.1007/s12892-022-00146-4)
5. Md. Monirul Islam, Tarun Kumar Pal, Subrata Paul, **Md. Najem Uddin**, Md. Chanmiya Sheikh, Md. Ashrafal Alam, Jewel Hossen, 'Computational, Hirshfeld surface, and molecular docking analysis of 2-(((4-methoxyphenyl) imino)methyl)-4-nitrophenol: In-vitro anticancer, antimicrobial, anti-inflammatory, and antioxidant studies', *Results in Chemistry*, Elsevier (Scopus Index), DOI: <https://doi.org/10.1016/j.rechem.2022.100331>

6. Hoque, Nazia, Farhana Afroz, Farjana Khatun, Satyajit R. Rony, Choudhury M. Hasan, Md. S. Rana, and Md. H. Sohrab. 2022. "Physicochemical, Pharmacokinetic and Cytotoxicity of the Compounds Isolated from an Endophyte *Fusarium oxysporum*: In Vitro and In Silico Approaches" *Toxins*, MDPI (SCIE & Scopus Index Q1 Journal, IF: 4.548), DOI: <https://doi.org/10.3390/toxins14030159>
7. M. Mostafizur Rahman, Esrat Jahan, Jannatun Nayeem, Kazi M. Yasin Arafat, A. K. M. Golam Sarwar, M. Nashir Uddin, 'Evaluation of *Erythrina fusca* Lour. as a pulping raw material', *International Wood Products Journal*, Tylor & Francis (Scopus Index), DOI: <https://doi.org/10.1080/20426445.2022.2039983>
8. Mithun Saha, Pallabi Sikder, Aditi Saha, Sharha Shah, Sharmin Sultana, Tushar Emran, Ananna Banik, Zahidul Islam, Muhammad Saiful Islam, Shazid Md. Sharker & Hasan Mahmud Reza, 'QbD Approach towards Robust Design Space for Flutamide/Piperine Self-Emulsifying Drug Delivery System with Reduced Liver Injury', *AAPS PharmSciTech*, Springer (SCIE & Scopus Index Q2 Journal, IF: 3.24), DOI: <https://doi.org/10.1208/s12249-022-02213-z>
9. Xiaoyu Mao, Y. Liu, Jin Zeng, Xiaohui Wang, Md. Monarul Islam, Ming Chen, Qing Chen, and Xing Feng, 'Synthesis and Photophysical Properties of Quinoxaline-Based Blue Aggregation-Induced Emission Molecules', *Canadian Journal of Chemistry*, (SCIE & Scopus Index, IF: 1.18), DOI: <https://doi.org/10.1139/cjc-2021-0267>
10. Ferdoushi Jahan, Afroza Akter Happy, 'Revolutionizing plant-based extracts for skin care and therapeutics', **Book Chapter**: *Nanotechnology for the Preparation of Cosmetics Using Plant-Based Extracts, Micro and Nano Technologies*, 2022, Pages 75-130, DOI: <https://doi.org/10.1016/B978-0-12-822967-5.00010-2>
11. Syed Farid Uddin Farhad, A.K.M. Hasibul Hoque; Nazmul Islam Tanvir; Suravi Islam; Mukul Hossain; Md Zunaid Baten, 'Enhanced and Tunable Absorption Characteristics of Au-nanoparticle Loaded ZnO Nanorods Grown by Hydrothermal Technique', *ICTP, IEEE Xplore* (Scopus Index), DOI: 10.1109/ICTP53732.2021.9744192
12. M. H. A. Begum, A. S. M. A. Rahman, M. R. Molla & M. A. Rahman, 'Preparation and characterization of activated carbon from paper mill sludge by chemical activation: a waste management approach', *International Journal of Environmental Science and Technology*, Springer (SCIE & Scopus Index Q2 Journal, IF: 2.86), DOI: <https://doi.org/10.1007/s13762-022-04169-w>
13. Bikash Dev Nath, Md. Monarul Islam, Md. Rezaul Karim, Shofiur Rahman, Dr. Md. Aftab Ali Shaikh, Paris E. Georghiou, Melita Menelaou, 'Recent Progress in Metal-Incorporated Acyclic Schiff-Base Derivatives: Biological Aspects', *ChemistrySelect*, (SCIE & Scopus Index Q2 Journal, IF: 2.109), DOI: <https://doi.org/10.1002/slct.202104290>
14. Md. Mohiuddin, Mohammad Belal Hossain, Mir Mohammad Ali, Md. Kamal Hossain, Ahasan Habib, Sanjida Afrin Semme, Md. Refat Jahan Rakib, Md. Asrafur Rahman, Jimmy Yub Mohammad Khalid Al-Sadoon, Aneela Gulnazg, Takaomi Arai, 'Human health risk assessment for exposure to heavy metals in finfish and shellfish from a tropical estuary', *Journal of King Saud University - Science*, Elsevier (SCIE & Scopus Index Q1 Journal, IF: 4.01), DOI: <https://doi.org/10.1016/j.jksus.2022.102035>
15. Fatema-Tuz-Zohora, Rumana Mahtarin, Md Ackas Ali, Mohammad Johirul Islam, Md. Hossain Sohrab, Choudhury Mahmood Hasan, Monira Ahsan, 'Cytotoxicity, Antioxidant Activity, Molecular Docking, and Dynamics Simulation Analysis Against SARS-CoV-2 M and N Protein Models of Phytoconstituents of *Micromelum Minutum*', *Biointerface Research in Applied Chemistry* (Scopus Index), DOI: <https://doi.org/10.33263/BRIAC131.006>

16. Subrata Paul, Md. Ashraful Alam, Tarun Kumar Pal, Md. Najem Uddin, Md. Monirul Islam, Md. Chanmiya Sheikh, 'Quantum computational, spectroscopic investigation, molecular docking, and in vitro pharmacological studies of sulfonamide Schiff base', *Journal of Molecular Structure*, Elsevier (SCI & Scopus Index Q1 Journal, IF: 3.196), DOI: <https://doi.org/10.1016/j.molstruc.2022.133084>

#### **Chattogram Lab: 4**

17. Mahfuzur Rahman, Sabrina Akhter Rima, Subrota Kumar Saha, Jerin Saima, Md. Sabbir Hossain, Tamisra Nath Tanni, **Muhammad Abu Bakar**, Mohammad Abdul Momin Siddique, 'Pollution evaluation and health risk assessment of heavy metals in the surface water of a remote island Nijhum Dweep, northern Bay of Bengal', *Environmental Nanotechnology, Monitoring & Management*, Elsevier (Scopus Index Q1 Journal), DOI: <https://doi.org/10.1016/j.enmm.2022.100706>
18. Kiyomi Nakagawa, Saiful Islam, Masashi Ueda, and Toshiyuki Nakagawa, "Endoplasmic reticulum stress contributes to the decline in doublecortin expression in the immature neurons of mice with long-term obesity," *Scientific Reports*, (SCIE & Scopus Index Q1 Journal, IF: 4.389), DOI: <https://www.nature.com/articles/s41598-022-05012-5>
19. Muhammad Shaiful Alam, Md. Sohorab Uddin, Tahmida Shamsuddin, Maruf Rubayed, **Tania Sharmin, Rasheda Akter & S. M. Zahid Hosen**, 'Repurposing of existing antibiotics for the treatment of diabetes mellitus', In *Silico Pharmacology*, Springer (SCIE & Scopus Index Q2 Journal), DOI: <https://doi.org/10.1007/s40203-021-00118-6>
20. Morshed Hossan Molla, Mohammad Abu Taiyeb Chowdhury, **Md. Habibur Rahman Bhuiyan, Suman Das, A. J. M. Morshed, Jewel Das, Saiful Islam**, 'Seasonal variation of drinking water quality in urban water bodies (UWBs) of Chittagong Metropolitan City, Bangladesh: implications of higher water quality index (WQI) for the urban environment', *Water Supply* (SCIE & Scopus Index Journal, IF: 1.275), DOI: <https://doi.org/10.2166/ws.2022.151>

#### **Rajshahi Lab: 5**

21. Lailatul Ferdousi, Nahid Sultana, Ummey Hafsa Bithi, Sharmin Akter Lisa, Md. Rakibul Hasan, Md. Abu Bakar Siddique\*. "Nutrient Profile of Wild Black Soldier Fly (*Hermetia illucens*) Prepupae Reared on Municipal Dustbin's Organic Waste Substrate" *Proceedings of the National Academy of Sciences, India Section B: Biological Sciences*, Springer Nature (Scopus Index Q2 Journal), DOI: <https://doi.org/10.1007/s40011-021-01340-0>
22. Md. Sabbir Hasan, Jannat Al Foisal, G. M. Arifuzzaman Khan, Rownok Jahan, Md. Hasanuzzaman, Md. Shamsul Alam, M. Minnatul Karim, M. A. Gafur, Muhammad Angkan Khan & Md. Abdus Sabur, 'Microfibrillated Cellulose-Silver Nanocomposite Based PVA Hydrogels and Their Enhanced Physical, Mechanical and Antibacterial Properties', *Journal of Polymers and the Environment*, Springer (SCI & Scopus Index Q2 Journal, IF: 3.67), DOI: <https://doi.org/10.1007/s10924-022-02406-4>
23. Sha Tamanna Sahil, Anika Tabassum Promi, Md. Kaium Hossain, Nasim Ahmad, Md. Abdullah Al Muhit, Shaikat Chandra Dey & Md. Ashaduzzaman, 'Cow milk lactose inspired fabrication of zinc oxide (ZnO) nanorods for bio-applications', *Inorganic and Nano-Metal Chemistry*, Tylor & Francis (Scopus Index, IF: 1.712), DOI: DOI: 10.1080/24701556.2022.2034006

24. Obydur Rahman, Md. Mahmudur Rahman & Mohd Maniruzzaman, 'Removal of dye and heavy metals from industrial wastewater by activated charcoal-banana rachis cellulose nanocrystal composites filter', International Journal of Environmental Analytical Chemistry Tylor & Francis (SCIE & Scopus Index Q Journal, IF: 2.826), DOI: <https://doi.org/10.1080/03067319.2022.2039647>
25. Paroma Arefin, Md Shehan Habib, Nazim Uddin Ahmed, Md Abdur Rahim, Md Ibrahim, Sreebash Chandra Bhattacharjee, Dipankar Chakraborty, Sumon Das, Debabrata Karmakar, Dip Bhowmik, Shirmin Islam, Md Saidul Arefin, 'Allergic Rhinitis And Importance Of Fexofenadine Hcl Sustained Release Microsphere As Its Treatment Approach', International Journal of Applied Pharmaceutics, (Scopus Index), DOI: <https://doi.org/10.22159/ijap.2022v14i1.40369>

### **IFST: 10**

26. Reaz M Mazumdar, M. Sharif, Tanjir Ahmed Khan, M. Mahfuzur Rahman, and Abu Tareque Mohammad Abdullah, 'Simultaneous determination of nitrite and nitrate in meat and meat products using ion-exchange chromatography', Food Research (Scopus Index Journal), DOI: [https://doi.org/10.26656/fr.2017.6\(3\).339](https://doi.org/10.26656/fr.2017.6(3).339)
27. Md. Nazim Uddin, Xiaosheng Wang, 'Identification of breast cancer subtypes based on gene expression profiles in breast cancer stroma', Clinical Breast Cancer, (SCIE & Scopus Index Q2 Journal, IF: 3.22), DOI: <https://doi.org/10.1016/j.clbc.2022.04.001>
28. Md Nur Hossain, Chaminda Senaka Ranadheera, Zhongxiang Fang, Said Ajlouni, 'Production of short chain fatty acids and vitamin B12 during the in-vitro digestion and fermentation of probiotic chocolate', Food Bioscience, Elsevier (SCIE & Scopus Index Q1 journal, IF: 4.24), DOI: <https://doi.org/10.1016/j.fbio.2022.101682>
29. G. M. M. Anwarul Hasan, Anuj Kumer Das, and Mohammed A. Satter, 'Accumulation of Heavy Metals in Rice (Oryza sativa. L) Grains Cultivated in Three Major Industrial Areas of Bangladesh', Journal of Environmental and Public Health, (SCIE & Scopus Index, IF), DOI: <https://doi.org/10.1155/2022/1836597>
30. G. M. M. Anwarul Hasan, Anuj Kumer Das, Mohammed A.Satter, 'Multi residue analysis of organochlorine pesticides in fish, milk, egg and their feed by GC-MS/MS and their impact assessment on consumers health in Bangladesh', NFS Journal, Elsevier (Scopus Index Q2 Journal), DOI: <https://doi.org/10.1016/j.nfs.2022.03.003>
31. Abu Tareq Mohammad Abdullah, Tanzir Ahmed Khan, Miskat Sharif, Reaz Mohammad Mazumdar, Mohammad Mahfuzur Rahman, 'Determination of dietary exposure and extraction efficiency of nitrosamine from cooked meat', Current Research in Food Science, Elsevier (Scopus Index), DOI: <https://doi.org/10.1016/j.crf.2022.02.010>
32. Sadia Afrin, Barna Goswami, Saidur Rahman, Mohammad Nazrul Islam Bhuiyan, Kazi Asma Ahmed Shamima & Nemai Chandra Nandi, 'Antimicrobial Potential of Coriandrum Sativum, Lactuca Sativa and Mentha Spicata against Antibiotic Resistant Microorganisms', Journal of Herbs, Spices & Medicinal Plants, Tylor & Francis (Scopus Index), DOI: <https://doi.org/10.1080/10496475.2022.2040684>
33. Jie Wang, Md. Nazim Uddin, Qian Li, Alidan Aierken, Ming-Yuan Li, Rui Wang, Qian-zhi Yan, Dilare Adi, Ming-Tao Gai, and Yun Wu, 'Identifying Potential Mitochondrial Proteome Signatures Associated with the Pathogenesis of Pulmonary Arterial Hypertension in the Rat Model', Oxidative Medicine and Cellular Longevity (SCIE & Scopus Index Q Journal, IF: 6.54), DOI: <https://doi.org/10.1155/2022/8401924>

34. Md Nazim Uddin and Xiaosheng Wang, "Identification of key tumor stroma-associated transcriptional signatures correlated with survival prognosis and tumor progression in breast cancer," *Breast Cancer*, Springer (SCIE & Scopus Index Q1 Journal, IF: 4.23), DOI: <https://doi.org/10.1007/s12282-022-01332-6>
35. Monayem Hussain, Mohammad Amzad Hossain, Mohajira Begum, and Nirmal Chandra Roy, "Freshwater mussel (*Lamelliedens marginalis*) to reduce the lead (Pb) bioaccumulation in aquaculture of stinging catfish, *Heteropneustes fossilis*," *Journal of Applied Aquaculture*, Taylor & Francis (ESCI & Scopus Index Journal), DOI: <https://doi.org/10.1080/10454438.2021.2010630>

## **IFRD: 11**

36. M.M. Rahman, N.Hasan, Md. Azizul Hoque, M.B. Hossen, M. Arifuzzamane, 'Structural, dielectric, and electrical transport properties of Al<sup>3+</sup> substituted nanocrystalline Ni-Cu spinel ferrites prepared through the sol-gel route, *Results in Physics*, Elsevier (SCIE & Scopus Index Q2 Journal, **IF: 4.476** ), DOI: <https://doi.org/10.1016/j.rinp.2022.105610>
37. **Ajoy Kanti Mondal**, Dezhong Xu, Shuai Wu, Qiuxia Zou, Weijie Lin, Fang Huang, Yonghao Ni, 'High lignin containing hydrogels with excellent conducting, self-healing, antibacterial, dye adsorbing, sensing, moist-induced power generating and supercapacitance properties', *International Journal of Biological Macromolecules*, Elsevier (SCIE & Scopus Index Q1 Journal, **IF: 6.95**), DOI: <https://doi.org/10.1016/j.ijbiomac.2022.02.144>
38. Digafe Alemu, Mesfin Tafesse, and **Ajoy Kanti Mondal**, 'Mycelium-Based Composite: The Future Sustainable Biomaterial', *International Journal of Biological Macromolecules*, (Scopus Index), DOI: <https://doi.org/10.1155/2022/8401528>
39. **Munira Sultana**, Mohammad Jellur Rahman & **M. Shahariar Bashar**, 'Size Distribution of Hexagonal Prismatic-Shaped ZnO Nanorods Synthesized by Microwave-Assisted Irradiation of Precursors, *Journal of Electronic Materials*, Springer (SCI & Scopus Index Q2 Journal, IF: 1.938), DOI: <https://doi.org/10.1007/s11664-022-09496-9>
40. Samiya Mahjabin, Mohammad Ismail Hossain, Md. Mahfuzul Haque, **M. Shahariar Bashar, M. Shah Jamal**, Md. Shahiduzzaman, Ghulam Muhammad, Kamaruzzaman Sopian & Md. Akhtaruzzaman, 'Sputtered WO<sub>x</sub> thin film as the electron transport layer for efficient perovskite solar cells, *Applied Physics A*, Springer (SCIE & Scopus Index Q2 journal, IF: 2.583), DOI: <https://doi.org/10.1007/s00339-022-05500-5>
41. Ayesha Siddika, Munira Sultana, M.Shahriar Bashar, Samia Tabassum, Shahin Aziz, Md AftabAli Shaikh, 'Improved performance of dye sensitized solar cell by exploration of photoanode and ruthenium based dye', *Optical Materials*, Elsevier, (SCIE & Scopus Index Q1 Journal, IF: 3.08), DOI: <https://doi.org/10.1016/j.optmat.2022.112042>
42. Mosharof Hossain, Sharmin Sultana Israt, Nuzhat Muntaha, and Mohammad Shah Jamal, "Effect of antioxidants and blending with diesel on partially hydrogenated fish oil biodiesel to upgrade the oxidative stability," *Bioresource Technology Reports*, Elsevier (Scopus Index Q1 Journal), DOI: <https://doi.org/10.1016/j.biteb.2021.100938>
43. Mohammad Tanvir Ahmed, Shariful Islam, Muhammad Shahriar Bashar, Md. Abul Hossain, and Farid Ahmed, 'Synthesis and Characterizations of CH<sub>3</sub>NH<sub>3</sub>PbI<sub>3</sub>: ZnS Microrods for Optoelectronic Applications, *Advances in Materials Science and Engineering* (SCIE & Scopus Index Q2 Journal, IF: 1.72), DOI: <https://doi.org/10.1155/2022/7606339>
44. Mohammad Tanvir Ahmed, Shariful Islam, Muhammad Shahriar Bashar, and Farid Ahmed, "One-Step Synthesis of (CH<sub>3</sub>NH<sub>3</sub>)<sub>2</sub>CuCl<sub>4</sub>: ZnS Thin Film for Optoelectronic Applications,"

Crystal Research and Technology, Wiley (SCIE & Scopus Index Q2 Journal, IF: 1.639), DOI: <https://doi.org/10.1002/crat.202100235>

45. Dezhong Xu, Yanan Cheng, Shuai Wu, Qiuxia Zou, Ajoy Kanti Mondal, Dengwen Ning & Fang Huang, 'Study on the effect of tunicate cellulose nanocrystals in the preparation of sodium alginate-based enteric capsule', *Cellulose*, Elsevier (SCI & Scopus Index Q1 Journal, IF: 5.044), DOI: <https://doi.org/10.1007/s10570-022-04445-5>
46. Ajoy Kanti Mondal, Dezhong Xu, Shuai Wu, Qiuxia Zou, Fang Huang, and Yonghao Ni, "Design of Fe<sup>3+</sup>-Rich, High-Conductivity Lignin Hydrogels for Supercapacitor and Sensor Applications," *Biomacromolecules*, ACS (SCI & Scopus Index Q1 Journal, IF: 6.98), DOI <https://doi.org/10.1021/acs.biomac.1c01194>

## **IMMM: 9**

47. Mahfuzur Rahman, Razat Suvra Das, Md. Sadril Islam Khan, Md. Imam Sohel Hossain, Md. Ekamat Faruque, Najmus Sakib Khan, Mohammad Abdul Momin Siddique Textural characteristics of surficial sediments along the Noakhali coast, Bangladesh: An implication for mineral placer deposits exploration, *Regional Studies in Marine Science*, Elsevier (Scopus Index Q2 Journal, IF: 1.624), DOI: <https://doi.org/10.1016/j.rsma.2022.102304>.
48. Mahfuzur Rahman, Md. Sadril Islam Khan, Mohammad Sabbir Hossain, Md. Imam Shohel Hossain, Mahmudul Hasan, Hadi Hamli, M. Golam Mustafa, 'Groundwater Contamination and Health Risk Evaluation of Naturally Occurring Potential Toxic Metals of Hatiya Island, Bangladesh', *Journal of Ecological Engineering* (Scopus Index), DOI: <https://doi.org/10.12911/22998993/148192>
49. Md. Khairul Islam, Nawshad Haque, Michael Somerville, Mark I. Pownceby, Suresh Bhargava James Tardio, 'Estimation of the Generation and Value Recovery from E-waste Printed Circuit Boards: Bangladesh Case Study', *REWAS 2022: Developing Tomorrow's Technical Cycles* (Volume I), Springer Book Chapter, DOI: [https://doi.org/10.1007/978-3-030-92563-5\\_11](https://doi.org/10.1007/978-3-030-92563-5_11)
50. ASM Mehedi Hasan, Ismail Hossain, Md Aminur Rahman, Mohammad Nazim Zaman, Pradip Kumar Biswas, and Md Sha Alam, "Chemistry and mineralogy of Zr-and Ti-rich minerals sourced from Cox's Bazar beach placer deposits, Bangladesh: Implication of resources processing and evaluation," *Ore Geology Reviews*, Elsevier (SCIE & Scopus Index Q1 Journal, IF: 3.809), DOI: <https://doi.org/10.1016/j.oregeorev.2021.104687>
51. SM Mahbubul Ameen, Simon A Wilde, Md Sakaouth Hossain, Sudeb Chandra Das, Al-Tamini Tapu, Mohammad Nazim Zaman, and D Srinivasa Sarma, "Episodic Proterozoic magmatism in Northwest Bangladesh: Implications for Columbia/Nuna and Rodinia reconstructions," *Lithos*, Elsevier (SCIE & Scopus Index Q1 Journal, IF: 4), DOI: <https://doi.org/10.1016/j.lithos.2021.106586>
52. Shuronjit K Sarker, Shanjida Sultana, Nawshad Haque, Anthony E Hughes, Warren Bruckard, and Biplob K Pramanik, "Rare earth elements recovery from secondary sources," *Environmental Technologies to Treat Rare Earth Elements Pollution: Principles and Engineering*, IWA publishing, DOI: <https://doi.org/10.2166/9781789062236>
53. Mst. Shanjida Sultana, Aninda Nafis Ahmed, 'Study on Sugarcane Bagasse Ash-Clay Mixture Properties to Develop Red Ceramic Materials', *Sugar Tech*, Springer (SCIE & Scopus Index Q Journal, IF: 1.59), DOI: <https://doi.org/10.1007/s12355-022-01109-3>
54. Mohammad Nazim Zaman, Pradip Kumar Biswas, Md. Aminur Rahman, A. S. M. Mehedi Hasan, Eunuse Akon, 'River-Borne Sediments of Bangladesh and Their Economic Importance', *Bangladesh Geosciences and Resources Potential*, Taylor & Francis, Link: <https://www.taylorfrancis.com/chapters/edit/10.1201/9781003080817-12/>

55. Eunuse Akon, Mohammad Zafrul Kabir, Mohammad Nazim Zaman, 'Placer Deposits of Bangladesh and Their Potential Commercialisation', Book Chapter, Bangladesh Geosciences and Resources Potential, Taylor & Francis, Link: <https://www.taylorfrancis.com/chapters/edit/10.1201/9781003080817-8/>

### **LRI: 2**

56. M Abdur Razzaq, Murshid Jamal Chowdhury, M Tusar Uddin, 'Salt Free Preservation of Raw Goat Skin Using Swietenia Mahogany (Seed) Extract', Journal of American Chemist Association (JALCA) (SCIE & Scopus Index Journal), DOI: <https://doi.org/10.34314/jalca.v117i2.4727>
57. Murshid Jaman Chowdury, Md Abdur Razzaq, Md Imran Biswas, Ariful Hai Quadery, and Md Tushar Uddin, "Extract of Trema Orientalis (L.) Stem Bark: A Potential Source of Environmentally Friendly Tanning Agent for Leather Industry," Journal of the American Leather Chemists Association, (SCIE & Scopus Index Journal), DOI: <https://doi.org/10.34314/jalca.v117i1.4696>

### **IGCRT: 3**

58. M. Mottakin, Vidhya Selvanathan, Sajal Mandol, Md. Mosaddek Hossen, M. Nurunnabi, Jahid Bin Haider, Mahfujul Hasan, Khaled Althubeiti, D.K. Sarkar, M.Shahinuzzaman, Huda Abdullah, Md. Akhtaruzzaman, 'Sustainable production of oxalic acid from waste cane sugar molasses via systemic recycling of nitrogen oxide', Journal of Cleaner Production, Elsevier (SCI & Scopus Index Q1 Journal, IF: 9.37), DOI: <https://doi.org/10.1016/j.jclepro.2022.130704>
59. Md Towhidul Islam, Nur Aisyah Nuzulia, Laura Macri-Pellizzeri, Farah Nigar, Yessie W. Sari, Ifty Ahmed, 'Evolution of silicate bioglass particles as porous microspheres with a view towards orthobiologics', Journal of Biomaterials Applications (SCIE & Scopus Index Journal), DOI: <https://doi.org/10.1177/08853282211059294>
60. Md Farid Ahmed, Malik Abdul Rub, Md Joy, R Tuhinur, Mohammad Robel Molla, Naved Azum, and Anamul Hoque, "Influences of NaCl and Na<sub>2</sub>SO<sub>4</sub> on the Micellization Behavior of the Mixture of Cetylpyridinium Chloride+ Polyvinyl Pyrrolidone at Several Temperatures," Gels, MDPI (SCIE & Scopus Index Q1 Journal, IF: 4.702), DOI: <https://doi.org/10.3390/gels8010062>

### **INARS: 14**

61. [Sadia Afrin](#), [Md. Mostafizur Rahman](#), [Md. Ahedul Akbor](#), [Md. Abu Bakar Siddique](#), [Md. Khabir Uddin](#), [Guilherme Malafaia](#). 2022. "Is there tea complemented with the appealing flavor of microplastics? A pioneering study on plastic pollution in commercially available tea bags in Bangladesh" Science of The Total Environment, Elsevier, (SCI & Scopus Indexed Q1 Journal, **IF:7.963**), DOI: <https://doi.org/10.1016/j.scitotenv.2022.155833>
62. Sabina Yasmin, Nipa Roy, Md Humayun Kabir, Seungwon Jeon, 'Nitrogen-functionalized carbon nanotube based palladium nanoparticles as an efficient catalyst for oxygen reduction and ethanol oxidation reaction', Applied Surface Science Advances, Elsevier (Scopus Index), DOI: <https://doi.org/10.1016/j.apsadv.2022.100235>
63. Yeasin Arafat Tarek, Sumon Chandra Debnath, Md. Ripaj Uddin, Shamim Ahmed, Mohammad Moniruzzaman, Tajnin Jahan, Shahnaz Sultana, Mehedi Hasan and A. H. M. Shofiul Islam Molla Jamal, 'Harvested Rainwater Quality of Dhaka and Its Importance as the Alternative to Surface

- and Groundwater' ECS Transactions, IOP Science, (Scopus Index), DOI: <https://iopscience.iop.org/article/10.1149/10701.18813ecst>
64. Md. Golam Azam, Md Humayun Kabir, Md. Aftab Ali Shaikh, Shamim Ahmed, Monika Mahmud, Sabina Yasmina, 'A rapid and efficient adsorptive removal of lead from water using graphene oxide prepared from waste dry cell battery', *Journal of Water Process Engineering, Elsevier (SCIE & Scopus Index Q1 Journal, IF: 5.485)*, DOI: <https://doi.org/10.1016/j.jwpe.2022.102597>
  65. Maliha Momotaj Himu, Sadia Afrin, Md. Ahedul Akbor, Md. Abu Bakar Siddique, Md. Khabir Uddin, Md. Mostafizur Rahman, 'Assessment of microplastics contamination on agricultural farmlands in central Bangladesh', *Case Studies in Chemical and Environmental Engineering*, 5, 100195. Elsevier (Scopus indexed), DOI: <https://doi.org/10.1016/j.cscee.2022.100195>
  66. Suaad Nasrin, Mohammad Nazmul Islam, Mohammed Abu Tayab, Mst. Samima Nasrin, Md. Abu Bakar Siddique, Talha Bin Emran, A.S.M. Ali Reza, 'Chemical profiles and pharmacological insights of *Anisomeles indica* Kuntze: An experimental chemico-biological interaction" *Biomedicine & Pharmacotherapy, Elsevier (SCI & Scopus Index Q1 Journal, Impact Factor: 6.529)*, DOI: <https://doi.org/10.1016/j.biopha.2022.112842>
  67. Snygdha Rani Das, Md. Azizul Haque, Md. Ahedul Akbor, Md. Abdullah-Al-Mamun, Gautam Chandra Debnath, Md. Shohorab Hossain, Zoherul Hasan, Aminur Rahman, Md. Atikul Islam, Md. Al-Amin Hossain, Shamima Yesmin, Mst. Nur-E-Nazmun Nahar, Kye Man Cho, 'Organophosphorus insecticides mineralizing endophytic and rhizospheric soil bacterial consortium influence eggplant growth-promotion', *Archives of Microbiology, Springer (SCI & Scopus Index Q2 Journal, IF: 2.553)*, DOI: <https://doi.org/10.1007/s00203-022-02809-w>
  68. Nushrat Jahan Chowdhury, Mashura Shammi, Md. Mostafizur Rahman, Md. Ahedul Akbor & Md. Khabir Uddin, 'Seasonal distributions and risk assessment of polychlorinated biphenyls (PCBs) in the surficial sediments from the Turag River, Dhaka, Bangladesh', *Environmental Science and Pollution Research, Springer (SCIE & Scopus Index Q1 Journal, IF: 4.223)*, DOI: <https://doi.org/10.1007/s11356-022-19176-0>
  69. Md. Atiqur Rahman, Md. Abu Bakar Siddique, Rahat Khan, A. H. M. Selim Reza, Abdul Hadi Al Nafi Khan, Md. Ahedul Akbor, Md. Saiful Islam, Asma Binta Hasan, Md. Irfanul Hasan, Iftakhar Bin Elius, 'Mechanism of arsenic enrichment and mobilization in groundwater from southeastern Bangladesh: Water quality and preliminary health risks assessment', *Chemosphere, Elsevier (SCI & Scopus Index Q1 Journal, IF: 7.086)*, DOI: <https://doi.org/10.1016/j.chemosphere.2022.133556>.
  70. Shabiha Hossain, Amit Hasan Anik, Rahat Khan, Farah Tasneem Ahmed, Md Abu Bakar Siddique, Abdul Hadi Al Nafi Khan, Narottam Saha, Abubakr M Idris, and Mahbub Alam, "Public Health Vulnerability Due to the Exposure of Dissolved Metal (oids) in Tap Water from a Mega City (Dhaka, Bangladesh): Source and Quality Appraisals," *Exposure and Health, Springer, (SCI and Scopus Index Q1 Journal, IF: 11.422)*, DOI: <https://doi.org/10.1007/s12403-021-00446-0>
  71. Md Rokonujaman Khan, Sheikh Manjura Hoque, Kaniz Fatima Binte Hossain, Md Abu Bakar Siddique, Md Khabir Uddin, and Md Mostafizur Rahman, "Green synthesis of silver nanoparticles using *Hibiscus sabdariffa* leaf extract and its cytotoxicity assay," *Inorganic and Nano-Metal Chemistry, Taylor & Francis, (SCIE & Scopus Index Q1 Journal, IF: 1.716)*, DOI: <https://www.tandfonline.com/doi/full/10.1080/24701556.2021.2025091>
  72. M. Shahidul Islam, Kei Nakagaw, M. Abdullah-Al-Mamun, Md. Abu Bakar Siddique, Ronny Berndtsson, 'Is road-side fishpond water in Bangladesh safe for human use? An assessment using

water quality indices', *Environmental Challenges*, Elsevier (Scopus Index), DOI: <https://doi.org/10.1016/j.envc.2021.100434>

73. Khandoker Qudrata Kibria, Md. Azharul Islam, Sirajul Hoque, Md. Abu Bakar Siddique, Mohammad Zaber Hossain, Md. Atikul Islam, "Variations in cadmium accumulation among rice cultivars in Bangladesh and associated human health risks" *Environmental Science and Pollution Research*, Springer (SCI & Scopus Index Q1 Journal, IF: 4.223), DOI: <https://doi.org/10.1007/s11356-022-18762-6>
74. Md Abedin, Mayeen Uddin Khandaker, Md Ripaz Uddin, Md Karim, M Ahamad, Md Islam, Abu Mohammad Arif, Abdelmoneim Sulieman, and Abubakr M Idris, "PPE pollution in the terrestrial and aquatic environment of the Chittagong city area associated with the COVID-19 pandemic and concomitant health implications," *Environmental Science and Pollution Research*, Springer (SCI & Scopus Index Q1 Journal, IF: 4.22), DOI: <https://doi.org/10.1007/s11356-021-17859-8>

#### **BTRI: 4**

75. Barna Goswami, Nasima Momtaz, M. I. Hoque & R. H. Sarker, 'Performance of F1 progenies developed through crosses between *Brassica carinata* A. Braun A (♀) and *Brassica rapa* L', *Genetic Resources and Crop Evolution*, Springer (SCIE & Scopus Index Q2 Journal, IF: 1.524), DOI: <https://doi.org/10.1007/s10722-022-01395-6>
76. Mostafa Kamal Arefin, Sultana Sahana Banu, A. K. M. Nasir Uddin, S. K. Nurul Fattah Rumi, Mala Khan, Ahsanul Kaiser, Muhammad Shaharior Arafat, Joybaer Anam Chowdhury, Md. Abdullah Saeed Khan & Mohammad Jahid Hasan, 'Virucidal Effect of Povidone Iodine on SARS-CoV-2 in Nasopharynx: An Open-label Randomized Clinical Trial', *Indian Journal of Otolaryngology and Head & Neck Surgery*, Springer (Scopus Index Journal), DOI: <https://doi.org/10.1007/s12070-022-03106-0>
77. Dipankar C Roy, Samina Akhter, Ashish K Sarker, MMK Hossain, Chadni Lyzu, LC Mohanta, Dipa Islam, and MAA Khan 'Tracing the Pig and Cattle Origin in Processed Food and Feed Products Targeting Mitochondrial 12S rRNA Gene', *Journal of Food Quality and Hazards Control* (Scopus Index) DOI: 10.18502/jfqhc.8.4.8256
78. Akter, Salima, Md. A. Rahman, Mohammad N. Hasan, Hajara Akhter, Priya Noor, Rokibul Islam, Yoonhwa Shin, MD. H. Rahman, Md. S. Gazi, Md N. Huda, Nguyen M. Nam, Jinwook Chung, Sunhee Han, Bonglee Kim, Insug Kang, Joohun Ha, Wonchae Choe, Tae G. Choi, and Sung S. Kim. 2022. "Recent Advances in Ovarian Cancer: Therapeutic Strategies, Potential Biomarkers, and Technological Improvements" *Cells*, MDPI (SCIE & Scopus Index Q1 Journal, IF: 6.6), DOI: <https://doi.org/10.3390/cells11040650>

#### **PP&PDC: 7**

79. Afroza Parvin, Md. Shamsul Alam, Md. Abdul Gafur & Gazi Md. Arifuzzaman Khan, 'Synthesis of p-phenylenediamine treated fibrillated cellulose fiber and its application in poly(vinyl alcohol) composites', *Journal of Natural Fibers*, Taylor & Francis (SCIE & Scopus Index Q2 Journal, IF: 5.323), DOI: <https://doi.org/10.1080/15440478.2022.2068726>
80. MS Alam, Nahar B, Md. Abdul Gafur, Seong G, Hossain MZ. Forced Convective Heat Transfer Coefficient Measurement of Low Concentration Nanorods ZnO–Ethylene Glycol Nanofluids in Laminar Flow. *Nanomaterials*, MDPI (SCIE & Scopus Indexed Q1 Journal, IF: 5.076), DOI: <https://doi.org/10.3390/nano12091568>
81. Surya Akter, Md. Shahinoor Islam, Md. Humayun Kabir, Dr. Md. Aftab Ali Shaikh, Md. Abdul Gafur, 'UV/TiO<sub>2</sub> photodegradation of metronidazole, ciprofloxacin and sulfamethoxazole in

- aqueous solution: An optimization and kinetic study', Arabian Journal of Chemistry, Elsevier (SCIE & Scopus Index Q1 Journal, IF: 5.16 ), DOI: <https://doi.org/10.1016/j.arabjc.2022.103900>
82. Saugata Sarker, Homayra Tabassum Mumu, Md.Al-Amin, Md. Zahangir Alam, **M.A.Gafur**, 'Impacts of inclusion of additives on physical, microstructural, and mechanical properties of Alumina and Zirconia toughened alumina (ZTA) ceramic composite: A review', Material Today: Proceedings (Scopus Index), DOI: <https://doi.org/10.1016/j.matpr.2022.02.481>
83. Md. Al-Amin, Homayra Tabassum Mumu, Saugata Sarker, Md. Zahangir Alam & **M. A. Gafur**, 'Effects of sintering temperature and zirconia content on the mechanical and microstructural properties of MgO, TiO<sub>2</sub> and CeO<sub>2</sub> doped alumina–zirconia (ZTA) ceramic', Journal of the Korean Ceramic Society, Springer (SCIE & Scopus index Q2 journal, IF: **1.674**), DOI: <https://doi.org/10.1007/s43207-022-00194-0>
84. S.Golder, M.R. Islam, R. Narayanan, S. Golder, **M.A. Gafur**, R.Pippia, S.K.Tyagi, 'Comparative study of thermal degradation kinetics of two woody biomass samples for bio-oil production', Sustainable Energy Technologies and Assessments, Elsevier (SCIE & Scopus index Q1 journal, IF: **5.353**), DOI <https://doi.org/10.1016/j.seta.2022.102158>
85. Md. Rezwana Munshi & Md. Abdul Gafur, 'Effect of Fiber Ratio on Mechanical, Thermal and Electrical Properties of Areca Sheath–Bamboo Hybrid Reinforced Polyester Composites', Advances in Materials and Processing Technologies, Tylor & Francis (Scopus Index), DOI: <https://doi.org/10.1080/2374068X.2022.2036501>

#### **CARE: 2**

86. Surovi Kabir, Abdul Kaium, Md. Tazul Islam Chowdhury, Mohammed Ariful Islam, Simana Akter Bhuiya, Md. Wadud Ahmed, Md. Moniruzzaman & Md. Sirajul Islam Khan, 'Environmental pollution, ecological and human health risk assessment of heavy metals in rice farming system near the Buriganga River in Dhaka, Bangladesh', International Journal of Environmental Analytical Chemistry, Taylor & Francis (SCIE & Scopus Index Journal, IF: 2.826), DOI: <https://doi.org/10.1080/03067319.2022.2064752>
87. Shathy, Romana A., Shahriar A. Fahim, Mithun Sarker, Md. Saiful Quddus, Mohammad Moniruzzaman, Shah M. Masum, and Md. A.I. Molla. 2022. "Natural Sunlight Driven Photocatalytic Removal of Toxic Textile Dyes in Water Using B-Doped ZnO/TiO<sub>2</sub> Nanocomposites" Catalysts, MDPI (SCIE & Scopus Index Q2 Journal, IF: 4.412), DOI: <https://doi.org/10.3390/catal12030308>

#### **ITTI: 1**

88. Farzana Yasmin, Tamjid-Us-Sakib, Sharmin Zaman Emon, Latiful Bari, Gazi Nurun Nahar Sultana, 'The physicochemical and microbiological quality assessment of Maddhapara hard rock-mine discharged water in Dinajpur, Bangladesh', Resources, Environment and Sustainability, Elsevier (Scopus Index Q2 Journal), DOI: <https://doi.org/10.1016/j.resenv.2022.100061>