

1. Sanjana Afrin Disha, Md. Sahadat Hossain, Md. Lawshan Habib, **Samina Ahmed***, Calculation of crystallite sizes of pure and metals doped hydroxyapatite engaging Scherrer Method, Halder-Wagner Method, Williamson-Hall model, and Size-Strain Plot, *Results in Materials*, Published December 2023, (**Elsevier, Q2,**) [21 (2024) 100496].
2. Mashrafi Bin Mobarak, Md. Najem Uddin, Fariha Chowdhury, Md. Sahadat Hossain, Monika Mahmud, Shifa Sarkar, Nazmul Islam Tanvir, **Samina Ahmed***, Solid-state synthesis of poultry waste derived hydroxyapatite: Effect of calcination temperature on crystallographic parameters and biomedical competency, *J. of Mol. Struct.* Published December 2023, 1301 (2024) 137321 (**Elsevier, Q2, I.F. 4.0**).
3. Mashrafi Bin Mobarak, M. Nahidul Islam, Fariha Chowdhury, Md. Najem Uddin, Md. Sahadat Hossain, Monika Mahmud, Umme Sarmeen Akhtar, Nazmul Islam Tanvir, A. F. M. Mustafizur Rahman, **Samina Ahmed***, Calcined chicken eggshell derived biomimetic nano-hydroxyapatite as a local drug delivery aid for doxycycline hydiate: characterization, bio-activity, cytotoxicity, antibacterial activity and in-vitro release study, *RSC Advances*, 2023, 13, 36209 (**RSC, Q1, I.F. 3.9**).
4. Md. Sahadat Hossain, **Samina Ahmed***, Sustainable synthesis of nano CuO from electronic waste (E-waste) cable: Evaluation of crystallite size via Scherrer equation, Williamson-Hall plot, Halder- Wagner Model, Monshi-Scherrer Model, Size- strain plot, *Results in Engineering*, 2023, 20, 101630. (**Elsevier, Q2, I.F. 6.0**).
5. Md. Sahadat Hossain, Shifa Sarkar, Sakabe Tarannum, Supanna Malek Tuntuna, Monika Mahmud, Mashrafi Bin Mobarak, **Samina Ahmed***, Exploration of photo-catalytic activity of nano-hydroxyapatite based on the crystallographic parameters: Estimation of crystallite size using X-ray diffraction data, *J. Saudi Chem. Soc.*, 27(2023)101769. (**Elsevier, Q1, I.F. 5.6**).
6. Sakabe Tarannum, Md. Sahadat Hossain, Md. Saiful Alam, Newaz Mohammed Bahadur*, **Samina Ahmed***, Augmentation of photocatalytic activity of nano-crystallite hydroxyapatite by fluoride doping, *Journal of Photochemistry & Photobiology, A: Chemistry* 447 (2024) 115271 (**Elsevier, Q2, I.F. 4.3**).
7. Md. Sahadat Hossain, Md. Aftab Ali Shaikh,* Md. Najem Uddin, Muhammad Shahriar Bashar and **Samina Ahmed**,* b-tricalcium phosphate synthesized in organic medium for controlled release drug delivery application in bio-scaffolds, *RSC Advances*, 2023, 13, 26435 (**RSC, Q1, I.F. 3.9**).
8. Md Tarik Hossain, Md Sahadat Hossain, Mohammad Shahriar Kabir, Samina Ahmed, Ruhul A. Khan, A.M. Sarwaruddin Chowdhury, Improvement of mechanical properties of jute-nano cellulose-reinforced unsaturated polyester resin-based composite: Effects of gamma radiation, *Hybrid Advances*, 3, 100068 (**Elsevier**).

9. Mashrafi Bin Mobarak, Nigar Sultana Pinky, Fariha Chowdhury, Md. Sahadat Hossain, Monika Mahmud, Md. Saiful Quddus, Shirin Akter Jahan, **Samina Ahmed***, Environmental remediation by hydroxyapatite: solid state synthesis utilizing waste chicken eggshell and adsorption experiment with congo red dye, *J. Saudi Chem. Soc.*, 2023, 27, 101690 (**Elsevier, Q1, I.F. 5.6**).
10. Md. Sahadat Hossain and **Samina Ahmed***, FTIR spectrum analysis to predict the crystalline and amorphous phases of hydroxyapatite: A comparison of vibrational motion to reflection, *RSC Advances*, 2023, 13, 14625. (**RSC, Q1, I.F. 3.9**).
11. Md. Sahadat Hossain, Md. Aftab Ali Shaikh, Md. Farid Ahmed and **Samina Ahmed***, Synthesis and characterization of nano-crystallite triple superphosphate from waste Pila globosa shells for sustainable industrial production, *Materials Advances*, 2023, DOI: 10.1039/d3ma00102d (**RSC, Q1, I.F. 5**).
12. Md. Sahadat Hossain and **Samina Ahmed***, Crystallographic characterization of naturally occurring aragonite and calcite phase utilizing Rietveld refinement, *J. Saudi Chem. Soc.*, 2023, 27, 101649 ((**Elsevier, Q1, I.F. 5.6**)).
13. Md. Sahadat Hossain, Md. Aftab Ali Shaikh, Shirin Jahan, Monika Mahmud, Mashrafi Bin Mobarak, Md. Saifur Rahaman, Md. Najem Uddin and **Samina Ahmed***, Exploring the biomedical competency of gamma-radiation aided hydroxyapatite and its composite fabricated with nano-cellulose and chitosan, *RSC Advances*, 2023, 13, 9654. (**RSC, Q1, I.F. 3.9**). DOI: 10.1039/d3ra00476g.
14. Md. Sahadat Hossain, Md. Najem Uddin and **Samina Ahmed***, Biomedical competency of bassanite (plaster of Paris) synthesized from waste Pila globosa shells, *Materials Advances*, 2023, 4, 1286. DOI: 10.1039/d2ma01005d (**RSC, Q1, I.F. 5**).
15. Supanna Malek Tuntun, Md. Sahadat Hossain, Md. Najem Uddin, Md. Aftab Ali Shaikh, Newaz Mohammed Bahadur and **Samina Ahmed***, Crystallographic characterization and application of copper doped hydroxyapatite as a biomaterial, *New Journal of Chemistry*, 2023, 47, 2874. DOI: 10.1039/d2nj04130h (**RSC, Q1, I.F. 3.30**).
16. Md. Sahadat Hossain, Md. Najem Uddin, Shirin Akter Jahan and **Samina Ahmed***, Synthesis and characterization of nano crystallite plaster of Paris prepared from waste eggshells and exploration of cytotoxicity, hemolysis and antimicrobial properties, *J. Mat. Chem. B*. 2023, 11, 1057. DOI: 10.1039/d2tb02392j. (**RSC, Q1, I.F. 7.0**).
17. Md. Sahadat Hossain, Md. Aftab Ali Shaikh and **Samina Ahmed***, Synthesis of Gypsum fertilizer from waste eggshells for sustainable environment, *Materials Advances*, 2023, 4, 240, DOI: 10.1039/d2ma00810f. (**RSC, Q1, I.F. 5**).
18. Md. Sahadat Hossain, Shirin Akter Jahan, **Samina Ahmed***, Crystallographic characterization of bio-waste material originated CaCO₃, green-synthesized CaO and Ca(OH)₂, *Results in Chemistry*, Published, 2023, 5, 100822.
doi.org/10.1016/j.rechem.2023.100822. (**Elsevier, Q3, I.F. 2.3**).

19. Trissa Saha, **Mashrafi Bin Mobarak**^{*}, Md Najem Uddin, Md Saiful Quddus, Mustafizur Rahman Naim, and Nigar Sultana Pinky, “Biogenic Synthesis of Copper Oxide (CuO) NPs Exploiting Averrhoa Carambola Leaf Extract and Its Potential Antibacterial Activity” *Materials Chemistry & Physics (Q1 Journal, IF: 4.6)*, DOI: <https://doi.org/10.1016/j.matchemphys.2023.127979>.
20. Nahar, A., Akbor, M. A., Pinky, N. S., Chowdhury, N. J., Ahmed, S., Gafur, M. A., ... Akhtar, U. S. (2023). Waste newspaper-driven activated carbon to remove polycyclic aromatic hydrocarbons from wastewater. *Heliyon*, 9(7).
21. Debnath, A., Salma, M. M., Islam, M. S., Mostafa, M. G., Samad, A., & Akhtar, U. S. (2023). Effect of processed rice husk ash on the production of conventional bricks. *International Journal of Scientific & Engineering Research*, 10, 1033–1036.
22. Islam, M. S., & Akhtar, U. S. (2023, August). Synthesis and characterization of sodium gluconate and its effects on the properties of Portland cement. *International Research Journal of Pure and Applied Chemistry*, 24(4), 20–32.
<https://doi.org/10.9734/irjpac/2023/v24i4817>
23. Shyama Prosad Moulick, Farhana Jahan, Md. Badrul Islam, Mahci Al Bashera, Md. Sabbir Hasan, Md. Jahidul Islam, Sabbir Ahmed, Debabrata Karmakar, Firoz Ahmed, Trissa Saha, Subarna Sandhani Dey, Farhana Boby, **Mandira Saha**, Barun Kanti Saha, Md Nurul Huda Bhuiyan, ‘Nutritional characteristics and antiradical activity of turmeric (*Curcuma longa L.*), beetroot (*Beta vulgaris L.*), and carrot (*Daucus carota L.*) grown in Bangladesh’, *Heliyon*, <https://doi.org/10.1016/j.heliyon.2023.e21495>
24. Md. Mahmudur Rahman, Mohd Maniruzzaman, Mst Sarmina Yeasmin, Md Abdul Gafur, Md Aftab Ali Shaikh, Md Ashraful Alam, Md Jasim Uddin, Mehedi Hasan, Mahci Al Bashera, Tahmina Akter Chowdhury, Bijoy Maitra, Mustafizur Rahman Naim, G.M. Masud Rana, Barun Kanti Saha, **Md Saiful Quddus**. ‘Adsorptive abatement of Pb²⁺ and crystal violet using chitosan-modified coal nanocomposites: A down flow column study’, *Groundwater for Sustainable Development*, DOI: [10.1016/j.gsd.2023.101028](https://doi.org/10.1016/j.gsd.2023.101028)
25. Mashrafi Bin Mobarak, Nigar Sultana Pinky, Fariha Chowdhury, Md. Sahadat Hossain, Monika Mahmud, **Md. Saiful Quddus**, Shirin Akter Jahan, Samina Ahmed. ‘Environmental remediation by hydroxyapatite: Solid state synthesis utilizing waste chicken eggshell and adsorption experiment with Congo red dye’, *Journal of Saudi Chemical Society*. DOI: [10.1016/j.jscs.2023.101690](https://doi.org/10.1016/j.jscs.2023.101690)
26. T. Rahman, M. Abdurrahim, K. A. Rintu, M. R. Sarkar, M. A. Kabir, D. Islam and **M. Hasanuzzaman**. Improvement of in vitro dissolution profile of poorly aqueous soluble anti-parasitic agent ivermectin using novel hydrophilic polymeric carriers. *Bangladesh J. Sci. Ind. Res.* 58(4), 209-220, 2023. <https://doi.org/10.3329/bjsir.v58i4.69047>.
27. Aynun Nahar, Md. Ahedul Akbor, Nigar Sultana Pinky, Nushrat Jahan Chowdhury, Shamim Ahmed, Md. Abdul Gafur, Umme Sarmeen Akthar, **Md. Saiful Quddus**, Fariha Chowdhury, ‘Waste newspaper driven activated carbon to remove polycyclic aromatic

hydrocarbon from wastewater', Heliyon (SCIE and Scopus index Q1 journal, IF: 4), DOI: <https://doi.org/10.1016/j.heliyon.2023.e17793>

28. Trissa Saha, Mashrafi Bin Mobarak, Md Najem Uddin, **Md Saiful Quddus**, Mustafizur Rahman Naim and Nigar Sultana Pinky, 'Biogenic synthesis of copper oxide (CuO) NPs exploiting Averrhoa carambola leaf extract and its potential antibacterial activity', Materials Chemistry and Physics, (indexed within Scopus, SCI, Inspec, American Ceramic Society and many other databases, IF: 4.778), DOI: [10.1016/j.matchemphys.2023.127979](https://doi.org/10.1016/j.matchemphys.2023.127979)
29. Shahriar Atik Fahim, Nusrat Zahan, Romana Akter Shathy, **Md.Saiful Quddus**, Mohammad Moniruzzaman, Shah Md. Masum, Md. Ashraful Islam Molla, 'B–Sn/TiO₂ nanoparticles for photodegradation of metronidazole antibiotics under different lights' Materials Chemistry and Physics, (indexed within Scopus, SCI, Inspec, American Ceramic Society and many other databases, IF: 4.778), DOI: [10.1016/j.matchemphys.2023.127937](https://doi.org/10.1016/j.matchemphys.2023.127937)
30. Gazi Md. Arifuzzaman Khan, Md. Sabbir Hasan, Md. Hafezur Rahaman, Allahrakha Aydid, Md. Moshiur Rahman, **Md. Hasanuzzaman**, Rownok Jahan & Md. Jannat-Al-Foisal. "Cellulose and Its Composites in Textiles and Food Industry" Regenerated Cellulose and Its Composite (pp 223-264, 26 April 2023), Springer Nature.
31. Sraboni Ahmed, Adnan Maroof Khan, Md. Mashiur Rahman Khan, Md. Hasanuzzaman, Md. Shayekh Munir and Md. Saiful Quddus, 'In situ synthesis and deposition of AgNPs on the alkali-pretreated cotton/flax blended denim fabric for antibacterial efficacy', Chemical Papers, (indexed within Scopus, SCImago, SCOPUS, SCI, SCIE and many other databases, Q2 journal, IF: 2.146 (2021) ; 5-Year Impact Factor: 2.078 (2021)), DOI: [10.1007/s11696-023-02852-x](https://doi.org/10.1007/s11696-023-02852-x)
32. Alam, M. A., Munni, S. A., Mostafa, S., Bishwas, R. K., & Jahan, S. A. (2023). An investigation on synthesis of silver nanoparticles. *Asian Journal of Research in Biochemistry*, 12(3), 1-10.
33. Alam, M. A., Mobashara, M. T., Sabrina, S. M., Bishwas, R. K. B., Debasish, D. S., & Shirin, S. A. J. (2023). One-pot low-temperature synthesis of high crystalline cu nanoparticles. *Malaysian Journal of Science and Advanced Technology*, 122-127.
34. Bishwas, R. K., Mostofa, S., Alam, M. A., & Jahan, S. A. (2023). Removal of malachite green dye by sodium dodecyl sulfate modified bentonite clay: Kinetics, thermodynamics and isotherm modeling. *Next Nanotechnology*, 3, 100021.
35. Alam, M. A., Tabassum, M., Mostofa, S., Bishwas, R. K., Sarkar, D., & Jahan, S. A. (2023). The effect of precursor concentration on the crystallinity synchronization of synthesized copper nanoparticles. *Journal of Crystal Growth*, 621, 127386.
36. Islam, F., Parvin A., Parvin, A., Akhtar, S. U., Shaikh, M. A. A., Uddin, M. N., Moniruzzamana, M., Saha B., Khanam, J., Suchi, D. P., Hossain, M. A., Hossain, M. K.,

“Sediment-bound hazardous trace metals (oid) in south-eastern drainage system of Bangladesh: First assessment on human health” *Heliyon* 9(2023) e20040.

37. Islam, S., Rahman, M. L., Moni, M. R., Biswas, B., Ahmed, M. F., Sharmin, N. (2023). Impacts of annealing temperature on microstructure, optical and electromagnetic properties of zinc ferrites nanoparticles synthesized by polymer assisted sol-gel method. *Arabian Journal of Chemistry*, 16, 105186.
38. Md Lutfor Rahman, Md Sydul Islam, Md Farid Ahmed, Bristy Biswas, Nahid Sharmin, AJM Tahuran Neger. Extraction and characterization of highly pure alumina (α , γ , and θ) polymorphs from waste beverage cans: A viable waste management approach. *Arabian Journal of Chemistry*, Elsevier.
39. Md. Lutfor Rahman, Salina Rahman, Bristy Biswas, Md. Farid Ahmed, Moksodur Rahman, Nahid Sharmin. Investigation of structural, morphological and magnetic properties of nanostructured strontium hexaferrite through co-precipitation technique: Impacts of annealing temperature and Fe/Sr ratio. *Heliyon*, Elsevier.
40. Monmon Podder, Md Farid Ahmed*, Md Rassel Moni, Md Lutfor Rahman, Bristy Biswas, Nahid Sharmin. Effect of metal ions on structural, morphological and optical properties of nano-crystallite spinel cobalt-aluminate (CoAl₂O₄). *Arabian Journal of Chemistry*, Elsevier.
41. Moksodur Rahman Md. Lutfor Rahman, Bristy Biswas, Md. Farid Ahmed, Md. Aftab Ali Shaikh, Shirin Akter Jahan, Nahid Sharmin. Effect of Ni-doping on coloring and photocatalytic performance of MgTi₂O₅ nanoceramics. *Journal of Industrial and Engineering Chemistry*, Elsevier.
42. Juliya Khanam, Md Rashib Hasan, Bristy Biswas, Shirin Akter Jahan, Nahid Sharmin, Samina Ahmed, and Sharif Md Al-Reza. 2023. “Development of Ceramic Grade Red Iron Oxide Pigment from Waste Iron Source.” *Heliyon* (SCIE and Scopus index Q1 journal, IF: 4), DOI: <https://doi.org/10.1016/j.heliyon.2023.e12854>