

# Dr. Md. Zaved Hossain Khan

Professor and Chairman

Dept. of Chemical Engineering, Jashore University of Science and Technology,  
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(Date of Birth: 15 Feb 1982)



## CURRENT POSITION

**Jashore University of Sci. and Tech.**

Professor and Chairman

**Jashore, Bangladesh**

May 2024 - Present

## EDUCATION

**Waseda University**

Doctor of Engineering, Applied Chemistry

**Tokyo, Japan**

2011

**Asian Institute of Technology**

M.Sc., Pulp and Paper Technology

**Bangkok, Thailand**

2007

**Islamic University**

M.Sc., Applied Chemistry & Chem. Engineering

**Kushtia, Bangladesh**

2005

**Islamic University**

B.Sc., Applied Chemistry & Chem. Engineering

**Kushtia, Bangladesh**

2004

## RESEARCH EXPERIENCE

**Henan University**

Postdoctoral Fellow; Advisor: Xiuhua Liu

**Kaifeng, China**

Sep 2017- Oct 2018

**Tohoku University**

Postdoctoral Fellow; Advisor: Tadahiro Komeda

**Sendai, Japan**

Dec 2013- Aug 2014

**Waseda University**

Research Assistant; Advisor: Tetsuya Osaka

**Tokyo, Japan**

2008-2011

**Korea Institute of Science and Technology**

Research Assistant; Advanced Analysis Centre

**Seoul, South Korea**

2007-2008

## TEACHING EXPERIENCE

**Jashore University of Science and Technology**

Associate Professor, Dept. of Chemical Engineering

Assistant Professor, Dept. of Chemical Engineering

**Jashore, Bangladesh**

2017-Present

2012-2017

## SCHOLARSHIP/AWARD RECEIVED

Best Poster Awards: 2017 (Philippines); 2016 (Bangladesh); 2016 (India); 2015 (India), 2015 (Bangladesh)

JSPS-GCE Fellowship 2008, Japan

IRDA fellowship 2007, South Korea

Finland Govt. Scholarship 2005, Thailand

**UGC Gold Medal 2018** 2018, Bangladesh

**UGC Gold Medal 2019** 2019, Bangladesh

**BAS Gold Medal 2021** 2021, Bangladesh

## RESEARCH PUBLICATIONS

### Patents:

1. **M. Z. H. Khan**, M. R. Al-Mamun, Hybrid Nanocomposite modified photoanode for dye sensitized solar cell. Bangladesh Patent, Appl. file No. P/BD/2021/000285 dated on 24-08-2021.
2. **M. Z. H. Khan**, Smart Nano-micro size fish feed with vitamins. Bangladesh Patent, Appl. file No. P/BD/2021/000284 dated on 24-08-2021.
3. **M. Z. H. Khan**, M. R. Al-Mamun, Synthesis of Nanoparticle-based Nano-fertilizer for agriculture. Bangladesh Patent, Appl. file No. P/BD/2021/000286 dated on 24-08-2021.
4. **M. Z. H. Khan**, M. R. Ali, Colorimetric sensor for Monitoring of P-Nitrophenol. Bangladesh Patent, Appl. file No. P/BD/2021/000414 dated on 06-12-2021.
5. **M. Z. H. Khan**, M. R. Ali, M. S. Bacchu, Sensor for detection of Nitrofurantoin. Bangladesh Patent, Appl. file No. P/BD/2021/000415 dated on 06-12-2021.
6. M. Sultana, **M. Z. H. Khan**, M. A. Hossain, M. H. Hasan, M. A. Rahman, A. Hossain, Bacteriophage based electrochemical biosensor for detection of Typhoid Pathogen. Bangladesh Patent, Appl. file No. P/BD/2024/000078 dated on 21-03-2024.

### **Potential articles: (Total citation- 4500; h-index: 35)**

#### (2025)

7. Zhan, M., Zhou, D., Lei, L., Zhu, J., **Khan, M. Z. H.**, Liu, X., & Ma, F. (2025). Glycyrrhizic acid and glycyrrhetic acid loaded cyclodextrin MOFs with enhanced antibacterial and anti-inflammatory effects for accelerating diabetic wound healing. *Colloids and Surfaces B: Biointerfaces*, 245, 114200 (IF 5.4)
8. Lei, L., Wu, X., Liu, X., Zhou, H., Zhu, J., El Jaouhari, A., ... & **Khan, M. Z. H.** (2025). Three-dimensional ordered macro-microporous ZIF-8- $\alpha$ -Glu microreactors for  $\alpha$ -glucosidase inhibitors screening from green tea. *Talanta*, 127578 (IF 5.6)
9. Zhan, M., Zhou, D., Lei, L., Zhu, J., **Khan, M. Z. H.**, Liu, X., & Ma, F. (2025). Glycyrrhizic acid and glycyrrhetic acid loaded cyclodextrin MOFs with enhanced antibacterial and anti-inflammatory effects for accelerating diabetic wound healing. *Colloids and Surfaces B: Biointerfaces*, 245, 114200 (IF 5.4)

#### (2024)

10. Khaleque, M. A., Ali, M. R., Aly, M. A. S., Hossain, M. I., Tan, K. H., Zaed, M. A., ... & **Khan, M. Z. H.** (2024). Highly sensitive electrochemical detection of ciprofloxacin using MXene (Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub>)/poly (rutin) composite as an electrode material. *Diamond and Related Materials*, 150, 111749. (IF 4.3)
11. MI Hossain, MA Khaleque, MR Ali, MS Bacchu, MS Hossain, SMF Shahed, M Aly Saad Aly, **M. Z. H. Khan (2024)**. Development of electrochemical sensors for quick detection of environmental (soil and water) NPK ions. *RSC advances*, 14(13), 9137-9158. (IF 3.9)
12. Md Hasibul Hassan, Md Romzan Ali, Md Arifur Rahman, Anamica Hossain, Sunjida Afrin, Md Abdul Khaleque, Md Anwar Hossain, **Md Zaved Hossain Khan**, Munawar Sultana (2024). Proposition of a phagosensor with a unique Teseptimavirus SAL\_R1S on a carbon nanotube platform for efficient detection of typhoid pathogen. *Sensors and Actuators Reports*, 8, 100238 (IF 6.5)
13. Md Abdul Khaleque, Syed Imdadul Hossain, Md Romzan Ali, Mohamed Aly Saad Aly, Hala S Abuelmakarem, Muhammad Shamim Al Mamun, **Md Zaved Hossain Khan\*** (2024). Bioreceptor

- modified electrochemical biosensors for the detection of life threatening pathogenic bacteria: a review. *RSC advances*, 14(39), 28487-28515 (IF 3.9)
14. Mengke Zhan, Danyang Zhou, Lijing Lei, Jinhua Zhu, **Md Zaved H Khan**, Xiuhua Liu, Fanyi Ma (2024). Glycyrrhizic acid and glycyrrhetic acid loaded cyclodextrin MOFs with enhanced antibacterial and anti-inflammatory effects for accelerating diabetic wound healing. *Colloids and Surfaces B: Biointerfaces*, 114200. (IF 5.4)
  15. Md Romzan Ali, Md Sadek Bacchu, Md Rashid Al-Mamun, Md Ikram Hossain, Abdul Khaleque, Anowara Khatun, Dipto Debnath Ridoy, Mohamed Aly Saad Aly, **Md Zaved Hossain Khan\*** (2024). Recent advanced in MXene research toward biosensor development. *Critical Reviews in Analytical Chemistry*, 54(6), 1381-1398. (IF 5.6)
  16. Md Romzan Ali, Md Sakib Hassan, Dipto Debnath Ridoy, Prity Lata Mozumder, Md Sadek Bacchu, Shilpi Das, Md Eashanul Karim Moon, Tamanna Jerin Anannya, Tamim Hasan, Mohamed Aly Saad Aly, Selina Akter, **Md Zaved Hossain Khan\*** (2024). Synthesis of novel anti-biofilm agent TiO<sub>2</sub>@ GO for reducing the formation of *Streptococcus mitis* biofilm on teeth. (Preprint)
  17. Md Abdul Khaleque, Md Romzan Ali, Mohamed Aly Saad Aly, Md Ikram Hossain, Kim Han Tan, Md Abu Zaed, Rahman Saidur, Md Mahbubur Rahman, Nabisab Mujawar Mubarak, **Md Zaved Hossain Khan\*** (2024). Highly Sensitive Electrochemical Detection of Ciprofloxacin Using Mxene (Ti<sub>3</sub>C<sub>2</sub>tx)/Poly (Rutin) Composite as an Electrode Material. (Preprint).
  18. Md Romzan Ali, Anowara Khatun, Jannatul Haider Konok, Md Sadek Bacchu, Md Rashid Al-Mamun, Md Abdul Khaleque, Mohamed Aly Saad Aly, **Md Zaved H Khan\*** (2024). Aminopropyltriethoxysilane Coated Hematite Nanotube as a Sensing Platform for Electrochemical Detection of Fenitrothion Residues in Vegetables." Available at SSRN 4910548 (Preprint).

## **(2023)**

19. Md. Rashid Al-Mamun, Hridoy Roy, Md. Shahinoor Islam\*, Md. Romzan Ali, Md. Ikram Hossain, Mohamed Aly Saad Aly, **Md. Zaved Hossain Khan\***, Hadi M. Marwani., Aminul Islam, Enamul Haque, Mohammed M. Rahman, Md. Rabiul Awual\* State-of-the-art in solar water heating (SWH) systems for sustainable solar energy utilization: A comprehensive review, *Solar Energy*, <https://doi.org/10.1016/j.solener.2023.111998> **IF 6.77**
20. Roy, H., Rahman, T.U., Khan, M.A.J.R., Al-Mamun, M.R., Islam, S.Z., Khaleque, M.A., Hossain, M.I., **Khan, M.Z.H.**, Islam, M.S., Marwani, H.M. and Islam, A., 2023. Toxic dye removal, remediation, and mechanism with doped SnO<sub>2</sub>-based nanocomposite photocatalysts: A critical review. *Journal of Water Process Engineering*, 54, p.104069. **IF 7.0**
21. Saha, S., M. R. Ali, M. A. Khaleque, M. S. Bacchu, M. Aly Saad Aly, and **M. Z. H. Khan\***. "Metal oxide nanocarrier for targeted drug delivery towards the treatment of global infectious diseases: A review." *Journal of Drug Delivery Science and Technology* (2023): 104728 <https://doi.org/10.1016/j.jddst.2023.104728> **IF 5.0**
22. Hossain, Md Shamim, Md Abdul Khaleque, Md Romzan Ali, Md Sadek Bacchu, Md Ikram Hossain, Mohamed Aly Saad Aly, and **Md Zaved Hossain Khan\***. "Poly (3, 4-ethylenedioxythiophene): Polystyrene Sulfonate-Modified Electrode for the Detection of Furosemide in Pharmaceutical Products." *ACS omega* 8, no. 19 (2023): 16851-16858. <https://doi.org/10.1021/acsomega.3c00463> **IF 4.1**
23. Khaleque, M. A., M. S. Bacchu, M. R. Ali, M. S. Hossain, M. R. A. Mamun, M. I. Hossain, and **M. Z. H. Khan\***. "Copper oxide nanoflowers/poly-l-glutamic acid modified advanced electrochemical sensor for selective detection of l-tryptophan in real samples." *Heliyon* 9, no. 6 (2023). <https://doi.org/10.1016/j.heliyon.2023.e16627> **IF 4.00**
24. Khaleque, M. A., Hossain, M. I., Ali, M. R., Bacchu, M. S., Aly, M. A. S., & **Khan, M. Z. H\***. (2023). Nanostructured wearable electrochemical and biosensor towards healthcare management: a review. *RSC advances*, 13(33), 22973-22997. <https://doi.org/10.1039/D3RA03440B> **IF 4.036**

25. Al-Mamun, Md Rashid, Md Zaveed Iqbal Rokon, Md Abdur Rahim, Md Ikram Hossain, Md Shahinoor Islam, Md Romzan Ali, Md Sadek Bacchu, Hiroki Waizumi, Tadahiyo Komeda, and **Md Zaved Hossain Khan\***. "Enhanced photocatalytic activity of Cu and Ni-doped ZnO nanostructures: A comparative study of methyl orange dye degradation in aqueous solution." *Heliyon* 9, no. 6 (2023). <https://doi.org/10.1039/D3RA03440B> IF 4.00
26. Hossain, M. S., Khaleque, M. A., Ali, M. R., Bacchu, M. S., Hossain, M. I., Aly Saad Aly, M., & **Khan, M. Z. H.\*** (2023). Poly (3, 4-ethylenedioxythiophene): Polystyrene Sulfonate-Modified Electrode for the Detection of Furosemide in Pharmaceutical Products. *ACS Omega*. <https://doi.org/10.1021/acsomega.3c00463>. IF 4.036
27. M. R Ali, M.S. Bacchu, S. Das, S. Akter, M. M. Rahman, M. A. S. Aly, & **M. Z. H. Khan.\*** (2023). Label free flexible electrochemical DNA biosensor for selective detection of Shigella flexneri in real food samples. *Talanta*, 253, 123909. IF: 6.556

## (2022)

28. M. R. Ali, M. S. Bacchu, D. D. Ridoy, P. L. Mozumder, M. N. Hasan, S. Das, M. F. H. Palash, S. Akter, N. Sakib, A. Khaleque, D. Chakroborty and **M. Z. H. Khan\***, Development of a hematite nanotube and tyramine-based drug carrier against drug-resistant bacteria *Klebsiella pneumonia*. *RSC Adv.*, 2022,12, 31497-31505. IF 4.036
29. M.R. Ali, Bacchu, M. S., Al-Mamun, M. R., Hossain, M. I., Khaleque, A., Khatun, A., ... & **Khan, M. Z. H.\*** (2022). Recent Advanced in MXene Research toward Biosensor Development. *Critical Reviews in Analytical Chemistry*, 1-18. IF: 5.56
30. M.H. Rahman, M.N. Hasan, R. Amin, M.A.A. Setu, S. Akter, S. Nigar, **M.Z.H. Khan\***, Mixed Nanocomposite Fertilizers Influencing Endophytic Symbiosis and Nutritional and Antioxidant Properties of *Oryza sativa* as a Sustainable Alternative for Commercial Fertilizers, *ACS Omega*. 7 (2022) 6787–6794. <https://doi.org/10.1021/acsomega.1c06395>. IF 4.132
31. M.S. Bacchu, M.R. Ali, M.N. Hasan, M.R.A. Mamun, M.I. Hossain, **M.Z.H. Khan\***, Graphitic carbon nitride and APTES modified advanced electrochemical biosensor for detection of 17 $\beta$ -estradiol in spiked food samples, *RSC Adv.* 12 (2022) 16581–16588. <https://doi.org/10.1039/d2ra02315f>. IF 4.036
32. M. Rashid Al-Mamun, K.T. Hossain, S. Mondal, M. Afroza Khatun, M. Shahinoor Islam, **D.M. Zaved Hossain Khan\***, Synthesis, characterization, and photocatalytic performance of methyl orange in aqueous TiO<sub>2</sub> suspension under UV and solar light irradiation, *South African J. Chem. Eng.* 40 (2022) 113–125. <https://doi.org/10.1016/j.sajce.2022.02.002>. IF 5.519
33. Zeyue Ren, Xiaojing Li, Fanyi Ma, Yun Zhang, Weiping Hu, **Md Zaved Hossain Khan**, Xiuhua Liu, Oil-in-water emulsions prepared using high-pressure homogenisation with *Dioscorea opposita* mucilage and food-grade polysaccharides: guar gum, xanthan gum, and pectin, *LWT*, 2022, 162,113468, <https://doi.org/10.1016/j.lwt.2022.113468>. IF 6.056
34. M. H. Rahman, N. M. Hasan, M. Sarkar, S. Nigar, M. A. S. Khan, & **M. Z. H. Khan\*** (2022). Effects of Formulated Fish Feed on Water Quality, Growth Performance, and Nutritional Properties of Catla Fish, *Catla catla*. *Thalassas: An International Journal of Marine Sciences*, 1-10. <https://doi.org/10.1007/s41208-022-00450-4> IF 0.91
35. Bacchu, M. S., M. R. Ali, S. Das, S. Akter, H. Sakamoto, S-I. Suje, M. M. Rahman, K. Campbell, and **M. Z. H. Khan\***. "A DNA functionalized advanced electrochemical biosensor for identification of the foodborne pathogen *Salmonella enterica* serovar Typhi in real samples." *Analytica Chimica Acta* 1192 (2022): 339332. IF: 6.911
36. M. Rashid Al-Mamun, K.T. Hossain, S. Mondal, M. Afroza Khatun, M. Shahinoor Islam, **D.M. Zaved Hossain Khan\***, Synthesis, characterization, and photocatalytic performance of methyl orange in aqueous TiO<sub>2</sub> suspension under UV and solar light irradiation, *South African J. Chem. Eng.* 40 (2022) 113–125. <https://doi.org/10.1016/j.sajce.2022.02.002>. IF 5.519

(2021)

37. M. H. Rahman, M. N. Hasan, S. Nigar, F. Ma, M. Aly Saad Aly, and **M. Z. H. Khan\***, Synthesis and Characterization of a Mixed Nanofertilizer Influencing the Nutrient Use Efficiency, Productivity, and Nutritive Value of Tomato Fruits. *ACS Omega*, vol. 6, no. 41, pp. 27112–27120 (2021) doi: 10.1021/acsomega.1c03727. [IF: 3.51](#)
38. F. Diba, **M.Z.H. Khan**, S.Z. Uddin, A. Istiaq, M.S.R. Shuvo, A.S.M.R. Ul Alam, M.A. Hossain, M. Sultana, Bioaccumulation and detoxification of trivalent arsenic by *Achromobacter xylosoxidans* BHW-15 and electrochemical detection of its transformation efficiency, *Sci. Rep.* 11 (2021) 1–15. <https://doi.org/10.1038/s41598-021-00745-1>. [IF: 4.37](#)
39. M. H. Rahman, M. N. Hasan, and **M. Z. H. Khan\***, “Study on different nano fertilizers influencing the growth, proximate composition and antioxidant properties of strawberry fruits Study on different nano fertilizers influencing the growth, proximate composition and antioxidant properties of strawberry fruits,” *J. Agric. Food Res.*, vol. 6, no. November, p. 100246, 2021, doi: 10.1016/j.jafr.2021.100246.
40. M. Daizy, M., Ali, M.R., Bacchu, M.S., Al-Mamun, M.R., M. M. Rahman, M. S. Ahommed, M. A. S. Aly & **M. Z. H. Khan\*** (2021). ZnO hollow spheres arrayed molecularly-printed-polymer based selective electrochemical sensor for methyl-parathion pesticide detection. *Environmental Technology & Innovation*. Volume 24, November 2021, 101847. <https://doi.org/10.1016/j.eti.2021.101847>. [IF: 5.26](#)
41. Bacchu, M.S., Ali, M.R., Setu, M.A.A., Akter, S., **Khan, M. Z. H\***. Ceftizoxime loaded ZnO/L-cysteine based an advanced nanocarrier drug for growth inhibition of *Salmonella typhimurium*. *Sci Rep* 11, 15565 (2021). <https://doi.org/10.1038/s41598-021-95195-0>. [IF: 4.37](#)
42. M.R. Ali, M.S. Bacchu, M.A.A. Setu, S. Akter, M.N. Hasan, F.T. Chowdhury, M.M. Rahman, M.S. Ahommed, **M.Z.H. Khan\***. Development of an Advanced DNA Biosensor for Pathogenic *Vibrio Cholerae* Detection in Real Sample. *Biosensors and Bioelectronics*, 2021, 113338, <https://doi.org/10.1016/j.bios.2021.113338>. [IF: 10.66](#)
43. M.H. Rahman, K.M.S. Haque, **M. Z. H. Khan\*** (2021). A review on application of controlled released fertilizers influencing the sustainable agricultural production: A Cleaner production process. *Environmental Technology & Innovation* 23(5):101697. DOI: 10.1016/j.eti.2021.101697. [IF: 5.26](#)
44. Ali, M.R., Bacchu, M.S., Al-Mamun, M.R., M. M. Rahman, M. S. Ahommed, M. A. S. Aly & **M. Z. H. Khan\***. Sensitive MWCNT/P-Cys@MIP sensor for selective electrochemical detection of ceftizoxime. *J Mater Sci* (2021). <https://doi.org/10.1007/s10853-021-06115-6>. [IF: 4.22](#)
45. M. R. Ali, M. S. Bacchu, M. R. Al-Mamun, M. S. Ahommed, M. A. S. Aly, **M. Z. H. Khan\***. N-Hydroxysuccinimide crosslinked graphene oxide–gold nanoflower modified SPE electrode for sensitive detection of chloramphenicol antibiotic. *RSC Advances* 2021,11, 15565-15572 (Doi: <https://doi.org/10.1039/D1RA02450G>). [IF: 3.36](#)
46. M. R. Al-Mamun, M. N. Karim, N. A. Nitun, S. Kader, M. S. Islam, **M. Z. H. Khan\***. Photocatalytic performance assessment of GO and Ag co-synthesized TiO<sub>2</sub> nanocomposite for the removal of methyl orange dye under solar irradiation. *Environmental Technology & Innovation* Volume 22, May 2021, 101537 (Doi: <https://doi.org/10.1016/j.eti.2021.101537>). [IF: 5.26](#)
47. M. R. Al-Mamun, M. S. Islam, M. R. Hossain, S. Kader, M. S. Islam, **M. Z. H. Khan\***. A novel and highly efficient Ag and GO co-synthesized ZnO nano photocatalyst for methylene blue dye degradation under UV irradiation. *Environmental Nanotechnology, Monitoring & Management*, Volume 16, December 2021, 100495. <https://doi.org/10.1016/j.enmm.2021.100495>.



48. Y. Zhang, X. Li, J. Li, **M. Z. H. Khan**, F. Ma & X. Liu. A novel zinc complex with antibacterial and antioxidant activity. *BMC Chemistry* 15, 17 (2021). <https://doi.org/10.1186/s13065-021-00745-2>. IF: 2.49
49. M. R. Al-Mamun, M. R. Hasan, M. S. Ahomed, M. S. Bacchu, M. R. Ali, **M. Z. H. Khan\*** (2021). Nanofertilizers toward sustainable agriculture and environment. *Environmental Technology & Innovation*. Volume 23, August 2021, 101658 (<https://doi.org/10.1016/j.eti.2021.101658>). IF: 5.26
50. M.R. Hasan, M.S. Ahommed, M. Daizy, M.S. Bacchu, M.R. Ali, M.R. Al-Mamun, M. Aly Saad Aly, **M.Z.H. Khan\***, S.I. Hossain. Recent development in electrochemical biosensors for cancer biomarkers detection. *Biosensors and Bioelectronics: X*, Volume 8, September 2021, 100075 (<https://doi.org/10.1016/j.biosx.2021.100075>).
51. X. Li, Z. Ren, R. Wang, L. Liu, J. Zhang, F. Ma, **M. Z. H. Khan**, D. Zhao, X. Liu. Characterization and antibacterial activity of edible films based on carboxymethyl cellulose, *Dioscorea opposita* mucilage, glycerol and ZnO nanoparticles. *Food Chemistry* 2021, 129208. (Doi: 10.1016/j.foodchem.2021.129208). IF: 7.5
52. **M.Z.H. Khan\***, M.R. Islam, N. Nahar, M.R. Al-Mamun, M.A.S. Khan, M.A. Matin. Synthesis and characterization of nanozeolite based composite fertilizer for sustainable release and use efficiency of nutrients. *Heliyon* 7 (2021) e060912. (Doi: <https://doi.org/10.1016/j.heliyon.2021.e06091>). IF: 1.65

## (2020)

53. C Tarafder, M Daizy, MM Alam, MR Ali, MJ Islam, R Islam, MS Ahommed, **M. Z. H. Khan\***. (2020). Formulation of a Hybrid Nanofertilizer for Slow and Sustainable Release of Micronutrients. *ACS omega* 5 (37), 23960-23966 (<https://doi.org/10.1021/acsomega.0c03233>) IF: 3.5
54. **M. Z. H. Khan\***, Recent Biosensors for Detection of Antibiotics in Animal Derived Food. *Critical Reviews in Analytical Chemistry*. 2020 (Doi: 10.1080/10408347.2020.1828027) IF: 6.5
55. **M. Z. H. Khan\***, M. M. M. Hossain, M. Khan, M. S. Ali, S. Aktar, M. Moniruzzaman and Mala Khan (2020). Influence of nanoparticle-based nano-nutrients on the growth performance and physiological parameters in tilapia (*Oreochromis niloticus* ). *RSC Advances* 10(50):29918-29922. (Doi: 10.1039/D0RA06026G) IF: 3.11
56. Yuqiong S., Yuxuan W., Jinhua Z., Wei L., **M. Z. H. Khan** and Xiuhua L (2020) Molecularly Imprinting Polymers (MIP) Based on Nitrogen Doped Carbon Dots and MIL-101(Fe) for Doxorubicin Hydrochloride Deliver. *Nanomaterials* 10, 1655; doi:10.3390/nano10091655 IF: 4.32
57. **M. Z. H. Khan\***, M. R. Hasan, S. I. Hossain, M. S. Ahommed, Ultrasensitive detection of pathogenic viruses with electrochemical biosensor: State of the art. *Biosensors and Bioelectronics*, Available online 16 July 2020, 112431 (Doi: 10.1016/j.bios.2020.112431) IF: 10.66
58. M.R. Ali, M.S. Bacchu, M.Daizy, C.Tarafder, S.Hossain, M.M. Rahman, **M.Z.H. Khan\*** (2020) A highly sensitive poly-arginine based MIP as an electrochemical sensor for selective detection of dimetridazole. *Analytica Chimica Acta*, 1121, 2020, Pages 11-16. Doi: 10.1016/j.aca.2020.05.004 IF: 6.55
59. Beibei Q., Yuqiong S., Luyun Y., Xiangrong W., Jinhua Z., Dongbao Z., **M.Z.H. Khan**, Xiuhua L (2020). Development of an on-line immobilized  $\alpha$ -glucosidase microreactor coupled to liquid chromatography for screening of  $\alpha$ -glucosidase inhibitors. *Journal of Pharmaceutical and Biomedical Analysis*, 180, 2020, 113047. Doi: 10.1016/j.jpba.2019.113047 IF: 3.93

60. Abdelhadi, E.J., Luyun, Y., Jinhua Z., Dong, Z., **M.Z.H. Khan.**, Xiuhua, L (2020). Enhanced molecular imprinted electrochemical sensor based on zeolitic imidazolate framework/reduced graphene oxide for highly recognition of rutin. *Analytica Chimica Acta*, 1106, 2020, Pages 103-114. Doi: 10.1016/j.aca.2020.01.039 [IF: 6.55](#)
61. **M. Z. H Khan\***, MS Ahommed, M Daizy. (2020). Detection of xanthine in food samples with an electrochemical biosensor based on PEDOT: PSS and functionalized gold nanoparticles. *RSC Advances* 10 (59), 36147-36154 (<https://doi.org/10.1039/D0RA06806C>). [IF: 3.36](#)

## (2019)

62. **M. Z. H. Khan\***, M. Daizy, C. Tarafder, X. Liu, u-PDA@SiO<sub>2</sub> core-shell nanospheres decorated rGO modified electrode for electrochemical sensing of cefotaxime. *Scientific Reports* (2019) 9(1):19041. Doi: 10.1038/s41598-019-55517-9. [IF: 4.35](#)
63. M. Daizy, C. Tarafder, M. R. Al-Mamun, M. A. S. Aly, X. Liu, **M. Z. H. Khan\***, Electrochemical Detection of Melamine by Using Reduced Graphene Oxide–Copper Nanoflowers Modified Glassy Carbon Electrode, *ACS Omega* 2019. Doi: 10.1021/acsomega.9b02827. [IF: 3.35](#)
64. **M. Z. H. Khan**, W. Zhao, J. Zhu, X. Liu, Facile Synthesis of rGO Conjugated Urchin-like NiCo<sub>2</sub>O<sub>4</sub> Nanostructures toward Ultra-sensitive Detection of o-Nitro and p-Amino Phenol. *ACS Omega* 2019 (4) 11433. Doi: :10.1021/acsomega.9b00804. [IF: 3.51](#)
65. Sanjeev P., S. Kumar, M. Aly S. Aly, **M. Z. H. Khan**, R. Xing, A review of spinel-type of ferrite thick film technology: fabrication and application. *Journal of Materials Science: Materials in Electronics* 2019 (30) 7752. Doi: 10.1007/s10854-019-01092-8. [IF: 2.47](#)
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