

CURRICULUM VITAE

PERSONAL DATA

Name	Fatehy Mohamed Abdel-Haleem Mohamed
Nationality	Egyptian
Position	Associate professor
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EDUCATION

Year	Academic Degree	Institution
2004	Bachelor of Science	Faculty of science, Cairo University, Cairo, Egypt
2009	Master of Science	Faculty of science, Cairo University, Cairo, Egypt
2014	Ph.D.	Faculty of science, Cairo University, Cairo, Egypt
2019	Assistant professor	Faculty of science, Cairo University, Cairo, Egypt

WORK EXPERIENCE

Period	Position	Address
2004-2009	Instructor	Faculty of science, Cairo University, Cairo, Egypt
2009-2014	Assistant Lecturer	Faculty of science, Cairo University, Cairo, Egypt
2014-2019	Lecturer	Faculty of science, Cairo University, Cairo, Egypt
2019-now	Assistant professor	Faculty of Science, Cairo University, Cairo, Egypt.
2024-now	Associate professor	Imam University, Riyadh, Saudi Arabia

RESEARCH INTERESTS

- (FTIR, fluorimeters, spectrophotometers, potentiostat-galvanostat, screen-printing machine, pH-meters and conductometers).
- have excellent experience in ion-selective electrodes (PVC, carbon paste, screen-printed, coated wires, and other types of electrodes).
- Ion-selective bulk optodes.
- Nano-structured electrodes.
- Microsphere and nanosphere-based optodes.
- Preparation and application of Molecularly-imprinted polymer.
- preparation of Schiff bases and its metal complexes.
- Potentiometry and Cyclic voltammetry.
- Environmental Analysis of Hazardous pollutants

PUBLICATIONS

1. PVC membrane bulk optode incorporating 4-nitrobenzo-15-crown-5 and sodium tetrakis (1-imidazolyl) borate for the pico-molar determination of silver ion in pharmaceutical formulations, FM Abdel-Haleem, Y Alhashemi, MS Rizk, *Scientific Reports* 14 (1), 19984, 2024
2. Electrochemical Nanomolar Determination of the Anticancer Drug 5-Fluorouracil Using Chitosan Curcumin Schiff Base-Decorated NiO Nanorods Synthesized with Green Method, Mohamed Abd-Elsabour, Mortaga M Abou-Krishna, Fatehy M Abdel-Haleem, Mohamed N Goda, Mohamed S Mohy-Eldin, *Journal of The Electrochemical Society*, 2024, 171, 087520
3. Innovations in ion-selective optodes: a comprehensive exploration of modern designs and nanomaterial integration, Ahmed Barhoum, Yaser Alhashemi, Yomna M Ahmed, Mahmoud S Rizk, Mikhael Bechelany, Fatehy M Abdel-Haleem, *Frontiers in Bioengineering and Biotechnology* 12, 1397587, 2024
4. Synthesis, and Characterization of Magnetic Nano-particles using Opuntia Extract, and its Applications in Wastewater Treatment, Hussein Mohamed Ahmed, Nouran Y Mohamed, Mohamed A El-Khateeb, Mohamed Mahmoud Hefny, Fatehy M Abdel-Haleem, Neama Ahmed, *Egyptian Journal of Chemistry*, 2024, 67 (8), 171-178
5. Evaluation of Agrowaste Species for Removal of Heavy Metals from Synthetic Wastewater, H. Ahmed, N.A. Sobhy, M.M. Hefny, Fatehy M. Abdel-Haleem, M.A. El-Khateeb, *Journal of Environmental and Public Health* 2023.
6. Modern designs of electrochemical sensor platforms for environmental analyses: Principles, nanofabrication opportunities, and challenges, A. Barhoum, S Hamimed, H Slimi, A Othmani, Fatehy M. Abdel-Haleem, *Trends in Environmental Analytical Chemistry*, 38, 2023, e00199.
7. Green Synthesis of Magnetite Nanoparticles Using Waste Natural Materials and Its Application for Wastewater Treatment, HM Ahmed, M. A. El-khateeb, N.A. Sobhy, M.M. Hefny, Fatehy M. Abdel-Haleem, *Environmental Sciences Proceedings* 2023, 25 (1), 99.
8. Molecularly-imprinted polymer-base bulk optode for the determination of ivabradine hydrochloride in Procoralan®, Fatehy M. Abdel-Haleem, M.S. Rizk, M.M. El-Beshlawy, *RSC advances* 12 (27), 2022, 17645-17654
9. Removal of Cadmium, Nickel, and Zinc from aqueous solutions by activated carbon prepared from corncob-waste agricultural materials. H.I. Abdel-Shafy, M.M. Hefny, H.M. Ahmed, Fatehy M. Abdel-Haleem, *Egyptian Journal of Chemistry* 65 (3), 2022, 1-2.

10. Dibenzo-18-crown-6-based carbon paste sensors for the nanomolar potentiometric determination of daclatasvir dihydrochloride: An anti-HCV drug and a potential candidate for treatment of SARS-CoV-2, Yomna M. Ahmed, S.S. Badawy, Fatehy M. Abdel-Haleem, *Microchemical Journal* 177, 2022, 107276.
11. Current trends in COVID-19 diagnosis and its new variants in physiological fluids: Surface antigens, antibodies, nucleic acids, and RNA sequencing, Menna Mostafa, Ahmed Barhoum, Ekin Sehit, Hossam Gewaid, Eslam Mostafa, Mohamed M Omran, Mohga S Abdalla, Fatehy M Abdel-Haleem, Zeynep Altintas, Robert J Forster, *TrAC Trends in Analytical Chemistry*, 157, 2022, 116750.
12. Nanoparticle and Nanostructure Synthesis and Controlled Growth Methods, Vancha Harish, Md Mustafiz Ansari, Devesh Tewari, Manish Gaur, Awadh Bihari Yadav, María-Luisa García-Betancourt, Fatehy M Abdel-Haleem, Mikhael Bechelany, Ahmed Barhoum, *Nanomaterials* 12 (18), 2022, 3226.
13. Non-Enzymatic Phenylboronic Acid-Based Optode Membrane for Glucose Monitoring in Serums of Diabetic Patients and in the Culture Medium of Human Embryos, M.M. Taha, M.S. Rizk, M.A. Zayed, Fatehy M. Abdel-Haleem, A Barhoum, *Sensors* 22 (19), 2022, 7135.
14. Greywater Treatment for Safe Recycling via Hybrid Constructed Wetlands and sludge Evaluation, H.M. Ahmed, H.I. Abdel-Shafy, M. El-Khateeb, M.M. Hefny, Fatehy M. Abdel-Haleem, *Egyptian Journal of Chemistry* 65 (13), 2022.
15. Development of potentiometric sensors based on thiourea derivatives, Gd₂O₃@ rGO and MoO₃@ rGO for the determination of salicylate in drug tablets and biofluids and DFT studies, Ahmed Mohamed Ibrahim, Fatehy M Abdel-Haleem, Azza Salah, Mahmoud S Rizk, Samir A Abdel-Latif, Ali Omar Turkey, Mohamed M Rashad, Ahmed Barhoum, *Microchemical Journal* 183, 2022, 108064.
16. Nanocelluloses as new generation materials: natural resources, structure-related properties, engineering nanostructures, and technical challenges, Ahmed Barhoum, Vibhore K Rastogi, Bhupender K Mahur, Amit Rastogi, Fatehy M Abdel-Haleem, Pieter Samyn, *Materials Today Chemistry* 26, 2022, 101247.
17. Screen-Printed Sensors Coated with Polyaniline/Molecularly Imprinted Polymer Membranes for the Potentiometric Determination of 2,4-Dichlorophenoxyacetic Acid Herbicide in Wastewater and Agricultural Soil, M.M. El-Beshlawy, Fatehy M. Abdel-Haleem, A.H. Kamel, A Barhoum, *Chemosensors* 11 (1), 2022, 3.
18. Molecularly Imprinted Polymer-Based Potentiometric Biosensor for Nanomolar Determination of Pioglitazone Hydrochloride in Pharmaceutical Formulations, M El-Beshlawy, FM Abdel-Haleem, A Barhoum, *Electroanalysis* 33 (5), (2021),1244-1254.
19. Ultrafast response humidity sensors based on polyvinyl chloride/graphene oxide nanocomposites for intelligent food packaging, H Moustafa, M Morsy, MA Ateia, FM Abdel-Haleem, *Sensors and Actuators A: Physical*, (2021), 112918.
20. Molecularly Imprinted Electrochemical Sensor Based Iron Oxide@ Carbon Nanotube Nanoparticles for Ivabradine Drug Determination in Human Pharmaceutical, Blood Serum, and Urine samples, Fatehy M Abdel-Haleem, E Gamal, MS Rizk, A Madbouly, RM El Nashar, B Anis, *Frontiers in Bioengineering and Biotechnology* 9, (2021), 213
21. Polyvinyl Chloride Modified Carbon Paste Electrodes for Sensitive Determination of Levofloxacin Drug in Serum, Urine, and Pharmaceutical Formulations, Fatehy M. Abdel-Haleem, S Mahmoud, NET Abdel-Ghani, RM El Nashar, *Sensors* 21 (9), (2021), 3150
22. t-Butyl calixarene/Fe₂O₃@ MWCNTs composite-based potentiometric sensor for determination of ivabradine hydrochloride in pharmaceutical formulations, FM Abdel-

- Haleem, E Gamal, MS Rizk, RM El Nashar, B Anis, Hussam M. Elnabawy, Ahmed S. G. Khalil, Ahmed Barhoum, *Materials Science and Engineering: C* 116, (2020), 111110
23. Optical microspheres for micromolar determination of salicylate in its pharmaceutical formulations, F.M. Abdel-Haleem, El-sayed Zahran, *Talanta* 196 (2019) 436–441.
24. Carbon-based Nanosensors for Salicylate Determination in Pharmaceutical Preparations, Fatehy M Abdel-Haleem, Azza Salah, Mahmoud S Rizk, Hussein Moustafa, Mikhael Bechelany, Ahmed Barhoum, *Electroanalysis* 31(4), (2019) 778-789.
25. Calixarene-Based Bulk Optode for Determination of Salicylate in pharmaceutical preparations, F.M. Abdel-Haleem, Rasha M. El Nashar, *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, 2018, 201, 98-104.
26. PVC membrane, coated-wire, and carbon-paste ion selective electrodes for potentiometric determination of galantamine hydrobromide in physiological fluids, Fatehy M. Abdel-Haleem, Mohamed Saad, Mahmoud S. Rizk, Ahmed Barhoum, Mikhael Bechelany, *Materials Science and Engineering: C*, 2018, 89, 140-148.
27. Electrochemical detection of the Different Species of Levofloxacin Using PVC, Carbon Paste and Screen-Printed Electrodes. Nour ElDin T. Abdel Ghani, Fatehy M. Abdel-Haleem, Sonia Mahmoud, Rasha M. El Nashar, *Journal of Analysis and Testing*, 2018, 2, 175–183.
28. Determination of water soluble vitamins in Egyptian Honey by RP-HPLC, AM Farag, MS Rizk, HA El-Bassel, MH Youssif, FM Abdel-Haleem, *African Journal of Biological Sciences* 14 (2), 2018, 51-61
29. Potentiometric determination of ciprofloxacin in physiological fluids using carbon paste and nano-composite carbon paste electrodes. M. S. Rizk, Ibrahim H. A. Badr, F. M. Abdel-Haleem, *Electroanalysis*, 2017, 29 (4), 1172-1179.
30. Highly Selective Thiocyanate Optochemical Sensor Based on Manganese(III) Salophen Ionophore, F.M. Abdel-Haleem, M.S. Rizk, *Materials Science and Engineering: C* 75, 2017, 682-687.
31. Complexometric Titration Using Ionophore-Based Ion-Exchange Emulsion for Anion Determination, F.M. Abdel-Haleem, M.S. Rizk, *Journal of Advanced research*, 2017, 8, 449-454.
32. Molecularly Imprinted Polymer-Based Bulk Optode for the Determination of Pharmaceutical Compounds in Physiological Fluids. F.M. Abdel-Haleem, Adel Madbouly, R.M. El Nashar and N.T. Abdel Ghani, *Biosensors and Bioelectronics*, 85, 2016, 740-742.
33. Highly Selective Thiourea-Based Bulk Optode for Determination of Salicylate in Spiked Urine Samples, Aspirin® and Aspocid®, F.M. Abdel-Haleem, *Sensors and Actuators B Chemical*, 233, 2016, 257-262.
34. Computational Design, Synthesis and Application of a New Selective Molecularly Imprinted Polymer for Electrochemical Detection, Nour T. Abdel Ghani, Rasha Mohamed El Nashar, Fatehy M. Abdel-Haleem, Adel Madbouly, *Electroanalysis* 28, 2016, 1-10
35. Development of new potentiometric sensors for the determination of Proguanil hydrochloride in serum and urine, F.M. Abdel-Haleem, Mohamed Saad · M.S. Rizk, *Chinese Chemical Letters* 27(6), 2016, 857-863.
36. Comparative Study of Carbon Paste, Screen Printed, and PVC Potentiometric Sensors Based on Copper-sulphamethazine Schiff Base Complex for Determination of Iodide – Experimental and Theoretical Approaches, Fatehy M. Abdel-Haleem, Ola R. Shehab, *Electroanalysis* 28, 2016, 800-807.

37. Potentiometric Anion Selectivity and Analytical Applications of Polymer Membrane Electrode Based on Novel Mn(III)- and Mn(IV)-Salophen Complexes, F.M. Abdel-Haleem, Ibrahim H. A. Badr, M.S. Rizk, *Electroanalysis*, 28(12), 2016, 2922-2929
38. Plastic membrane electrodes for the determination of flavoxate hydrochloride and cyclopentolate hydrochloride, M.S. Rizk, F.M. Abdel-Haleem, *Electrochimica Acta* 55 (20), 2010, 5592-5597.