

Curriculum Vitae



A. PERSONAL INFORMATION

- **Name:** Mohamed Mahmoud Abdel-Gaber El-Wekil
- **Date of Birth:** 13/09/1983
- **Citizenship:** Egyptian
- **Marital status:** Married
- **Last degree:** Associate Professor
- **Email address:** mohamed.elwakeel@pharm.aun.edu.eg
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- **Address:** Pharmaceutical Analytical Chemistry Department, Faculty of Pharmacy, Assiut University, 71526, Assiut, Egypt
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B. LANGUAGES: Arabic (mother language) and English

C. RESEARCH PROFILES

- **Google Scholar account:** <https://scholar.google.com/citations?user=75LdMhgAAAAJ&hl=ar>
- **Scopus:** <https://www.scopus.com/authid/detail.uri?authorId=56192749700>
- **Publons:** <https://publons.com/researcher/AAC-1374-2020/>
- **Orchid:** <https://orcid.org/0000-0002-1097-1148>
- **Web of Science Researcher ID:** [AAC-1374-2020](https://www.researchgate.net/profile/Mohamed-El-Wekil)
- **Researchgate:** <https://www.researchgate.net/profile/Mohamed-El-Wekil>
- **H-index:** [Google Scholar \(26\)](#), [Scopus \(25\)](#), [web of science \(25\)](#)

D. EDUCATION AND QUALIFICATIONS

June 2023, Associate Professor in Department of Pharmaceutical Analytical Chemistry, Faculty of Pharmacy-Assiut University.

April 2013 – June 2017 PhD “Electrochemical, spectroscopic and separation

methods for the analysis of proton pump inhibitors” Department of Pharmaceutical Analytical Chemistry, Faculty of Pharmacy-Assiut University. My thesis has focused on using modern techniques such as FTIR spectroscopy, electrochemical methods and separation techniques for the analysis of important group for treatment of peptic ulcers and esophageal reflux disorders. Also, combinations that are used for treatment of Helicobacter Pylori associated problems were my concern. These techniques were used for the analysis of these drugs and their combinations in bulk drugs, pharmaceutical formulations and biological fluids.

April 2006- December 2011 MSc “Analytical study of some proton pump inhibitors”

Faculty of Pharmacy – University of Assiut – Assiut – Egypt. The thesis involves analysis of certain proton pump inhibitors using spectrophotometry, spectrofluorometry and TLC-spectrodensitometry and applications of these methods for the analysis of such groups in pure forms and pharmaceutical formulations using different strategies by these techniques.

September 2001- June 2005 BSc in Pharmaceutical Sciences (Excellence with Degree of Honour) Faculty of Pharmacy – University of Assiut – Assiut – Egypt.

I have gained experience of both the practical and interpretive aspects of a vast number of chemistry techniques during my undergraduate, postgraduate degrees and my other work experiences. These include the following:

- Vibrational spectroscopy (Raman, Near and mid-infrared) and confocal Raman imaging
- Femtosecond time resolved near infrared laser spectroscopy
- Powder X-ray diffractometry
- Single crystal X-ray diffraction (from sample preparation, data collection, and structure refinement)
- Multinuclear NMR spectroscopy

- Hot stage microscopy
- Thermal analytical methods (DSC and TGA)
- UV, Visible and Fluorescence spectroscopies.
- Chromatographic techniques (HPLC, GC, IGC and MS)
- Trace element analysis using atomic absorption and flame photometry.
- Electrochemical techniques (voltammetry, polarography and potentiometry)
- General wet chemistry techniques, titrimetry, compleximetry, precipitometry and gravimetric analysis etc.
- Knowledge of synthesis in organic and inorganic chemistry.

E. RESEARCH INTERESTS

My principal research interests lie in the field of the electrochemistry (fundamentals and applications), Spectrometric methods, FTIR spectroscopic analysis and separation methods (TLC- electrophoresis- HPLC) for the analysis of drugs in pharmaceutical formulations, biological fluids and environmental samples.

F. TEACHING AND ADMINISTRATIVE EXPERIENCE

- Bachelor Degree in Pharmaceutical sciences, June 2005, Assiut University with general grade excellence.
- Master Degree, Pharmaceutical analytical Chemistry, 2011, Faculty of Pharmacy, Assiut University, Assiut, Egypt.
- Ph.D. degree, Pharmaceutical analytical Chemistry, 2017, Faculty of Pharmacy, Assiut University, Assiut, Egypt.
- Associate professor, Pharmaceutical analytical Chemistry, 2023, Faculty of Pharmacy, Assiut University, Assiut, Egypt

G. KEY SKILLS

IT Skills - Proficient in all Microsoft Office packages (Word, PowerPoint, etc), using many chemistry software packages for drawing and spectral manipulation in particular GRAMS, ChemOffice, ChemDraw, ChemWindow, ISIS Draw, Igor Pro, ChemSketch and Origin Pro and in the use of many scientific database packages such as the CDS service, SciFinder, ISI, CSD, MDL Crossfire.

Problem Solving- Collaboration with across five distinct areas of chemical sciences, demonstrated independent thought in analysing problems, adopting suitable strategies and developing new techniques. The results are being reviewed for publication, and have been presented to my colleagues in a series of seminars in Egypt.

Languages: Proficient in English and Arabic.

H. Recent positions

Quality control member at Quality Control Achievement Center, Assiut University, Assiut, Egypt. An active member of the implementation team of Continuous Improvement and Qualifying for Accreditation Project (CIQAP), Faculty of Pharmacy, Assiut University, Assiut, Egypt.

I. Prizes and memberships

1. State Encouragement Award 2023.
2. High board member of the "Scientific Association of Assiut Pharmacy Students, SAAPS, 2001-2005.
3. Member of the Assiut and Egyptian Pharmaceutical Syndicate, 2005.
4. Active member of Pharmaceutical Society of Egypt, 2005.
5. Member of "Performance Evaluation and Development Unit" in Assiut University, 2018.
6. Member of "ISEF" in the Governorate of Assiut, 2019.
7. Member of Arab Association members, 2021.

i. Publications

1. Ultrasensitive fluorometric determination of aluminum using the CoFe₂O₄ NPs/SDS/oxine system with the aid of ultrasound waves, Yahya S. Alqahtani, Ashraf M. Mahmoud, Mohamed **M. El-Wekil**. Anal. Methods, 16 (2024), pp.1804-1810.
2. Enhanced fluorometric detection of histamine using red emissive amino acid-functionalized bimetallic nanoclusters, Yahya S. Alqahtani, Ashraf M. Mahmoud, Al-Montaser Bellah H. Ali, **Mohamed M. El-Wekil**. RSC Adv., 14 (2024), pp. 18970-18977.
3. Dual modulation of blue-fluorescent carbon dots for simultaneous detection of topotecan and pantoprazole, Ashraf M. Mahmoud, Yahya S. Alqahtani, **Mohamed M. El-Wekil**, Al-Montaser Bellah H. Ali. Anal. Methods, 16 (2024), pp.3287-3296.
4. First electrochemical nanosensor for ultrasensitive quantification of MET inhibitor, capmatinib based on carbon nanofiber networks incorporated with hybrid nanofiller nanogold-loaded porous acetylene black, Yahya S. Alqahtani, Ashraf M. Mahmoud, Bandar A. Alyami, **Mohamed M. El-Wekil**, Hazim M. Ali, Hossieny Ibrahim. Microchem. J. 201 (2024), Article 110665.
5. Near-infrared fluorescent probe for selective and sensitive detection of glutathione based on thioctic acid-functionalized Ag/Au NCs-assisted by ferric ion, Yahya S. Alqahtani, Ashraf M. Mahmoud, Masood Medleri Khateeb, Ramadan Ali, **Mohamed M. El-Wekil**. Microchem. J. 201 (2024), Article 110752.
6. A novel disposable ultrasensitive sensor based on nanosized ceria uniformly loaded carbon nanofiber nanoceramic film wrapped on pencil graphite rods for

- electrocatalytic monitoring of a tyrosine kinase inhibitor capmatinib, Ahmed Z. Alanazi, Khalid Alhazzani, **Mohamed M. El-Wekil**, Al-Montaser Bellah H. Ali, Mahmoud Darweesh, Hossieny Ibrahim. *Talanta* 279 (2024), Article 126610.
7. A novel urease-assisted ratiometric fluorescence sensing platform based on pH-modulated copper-quenched near-infrared carbon dots and methyl red-quenched red carbon dots for selective urea monitoring, Ahmed Z. Alanazi, Khalid Alhazzani, Aya M. Mostafa, James Barker, Hossieny Ibrahim, **Mohamed M. El-Wekil**, Al-Montaser Bellah H. Ali. *Microchem. Acta* 191 (2024), p. 505.
 8. Enhanced dual fluorescence quenching of red and blue emission carbon dots by copper dimethyldithiocarbamate for selective ratiometric detection of ziram in foodstuff and water samples, Khalid Alhazzani, Ahmed Z. Alanazi, Aya M. Mostafa, James Barker, Hossieny Ibrahim, **Mohamed M. El-Wekil**, Al-Montaser Bellah H. Ali. *Microchem. J.* 204(2024), Article 111092.
 9. Exploiting the pH-responsive behavior of zinc-dithizone complex for fluorometric urea sensing utilizing red-emission carbon dots, Khalid Alhazzani^a, Ahmed Z. Alanazi, Aya M. Mostafa, James Barker, Hossieny Ibrahim, **Mohamed M. El-Wekil**, Al-Montaser Bellah H. Ali. *Microchem. J.* 204 (2024), Article 111129.
 10. Colorimetric and fluorometric dual-mode determination of hypochlorite based on redox-mediated quenching, Ali O. AlQarni, Ashraf M. Mahmoud, Ramadan Ali, **Mohamed M. El-Wekil**. *RSC Adv.* 13 (2023), pp. 32492-32501.
 11. Enhanced fluorescent detection of oxaliplatin via BSA@copper nanoclusters: a targeted approach for cancer drug monitoring, Yahya S. Alqahtani, Ashraf M. Mahmoud, Hossieny Ibrahim, **Mohamed M. El-Wekil**. *Anal. Methods*, 16 (2024), pp. 3125-3130.

12. Dual-Modulation ratiometric fluorescence strategy for cobalt and topotecan detection using Red-Emissive carbon dots, Ali M. Alaseem, Khalid Alhazzani, Ahmed Z. Alanazi, Saud M. Alsanad, Osama A. Alkhamees, Glowi Alasiri, **Mohamed M. El-Wekil**, Al-Montaser Bellah H. Ali. *Microchem. J.* 201(2024), Article 110645.
13. Ratiometric Sensing of Azithromycin and Sulfide Using Dual Emissive Carbon Dots: A Turn On-Off-On Approach, Ashraf M. Mahmoud, Yahya S. Alqahtani, **Mohamed M. El-Wekil**, Al-Montaser Bellah H. Ali. *J. Fluorescence* (2024) <https://doi.org/10.1007/s10895-024-03737-2>.
14. Selective and reliable fluorometric quantitation of anti-cancer drug in real plasma samples using nitrogen-doped carbon dots after MMIPs solid phase microextraction: Monitoring methotrexate plasma level, Ahmed Z. Alanazi, Khalid Alhazzani, Aya M. Mostafa, James Barker, **Mohamed M. El-Wekil**, Al-Montaser Bellah H. Ali. *J. Pharm. Biomed. Anal.* 238 (2024), Article 115862.
15. Ratiometric fluorometric determination of sulfide using graphene quantum dots and self-assembled thiolate-capped gold nanoclusters triggered by aluminum, Bandar A. Alyami, Ashraf M. Mahmoud, Ali O. Alqarni, Al-Montaser Bellah H. Ali & **Mohamed M. El-Wekil**. *Microchimica Acta* 190 (2023), p. 467.
16. Sonochemical synthesis of lanthanum ferrite nanoparticle–decorated carbon nanotubes for simultaneous electrochemical determination of acetaminophen and dopamine, Saad A. Alkahtani, Ashraf M. Mahmoud, Ramadan Ali & **Mohamed M. El-Wekil**. *Microchimica Acta* 191 (2024), p.25.
17. A reliable and selective ratiometric sensing probe for fluorometric determination of $P_2O_7^{4-}$ based on AIE of GSH@CuNCs-assisted by Al-N@CQDs, Ashraf M. Mahmoud, Samer S. Abu-Alrub, Ali O. Al-Qarni, **Mohamed M. El-Wekil**, Reem Y. Shahin. *Spectrochimica Acta Part A: Molecular and Biomolecular*

Spectroscopy 310 (2024), Article 123850.

18. Advanced fluorescence-based determination of carboplatin, a potent anticancer agent, with tripeptide-functionalized copper nanoclusters, Ahmed Z. Alanazi, Khalid Alhazzani, Ashraf M. Mahmoud, Al-Montaser Bellah H. Ali, **Mohamed M. El-Wekil**. *Microchem. J.* 199 (2024), Article 110000.
19. A dual emissive silver-riboflavin complex and nitrogen-doped carbon dot nanoprobe for ratiometric detection of glutathione, Khalid Alhazzani, Ahmed Z. Alanazi, Aya M. Mostafa, James Barker, **Mohamed M. El-Wekil**, Al-Montaser Bellah H. Ali. *Microchem. J.* 199 (2024), Article 109996.
20. Highly selective fluorometric detection of streptokinase via fibrinolytic release of photoluminescent carbon dots integrated into fibrin clot network, Ahmed Z. Alanazi, Khalid Alhazzani, Aya M. Mostafa, James Barker, **Mohamed M. El-Wekil**, Al-Montaser Bellah H. Ali. *Microchem. J.* 197 (2024), Article 109800.
21. Selective fluorescence turn-on detection of combination cisplatin–etoposide chemotherapy based on N-CDs/GSH-CuNCs nanoprobe, Khalid Alhazzani, Ahmed Z. Alanazi, Aya M. Mostafa, James Barker, **Mohamed M. El-Wekil**, Al-Montaser Bellah H. Ali. *RSC Adv.* 14 (2024), pp. 2380-2390.
22. Sensing the invisible: Ultrasensitive and selective colorimetric detection of *E. coli* O157:H7 based on masking the peroxidase-mimetic activity of aptamer-modified Au/Fe₃O₄, Ramadan Ali, Abdullah Alattar, Reem Alshaman, Abdullh Ghabban, Sultan Alanazi, Hazem Al-Brahimi, Mohammed Alatwi, Abdullah Jlawi, Abdulmohsen Albalawi, Ahmed Moutair Awad Alatawi, Budor Al balawi, Afnan Al-Marwani, **Mohamed M. El-Wekil**. *Food Chem.* 443 (2024), Article 138564.
23. First report for fluorometric determination of kasugamycin based on amino acid-functionalized bimetallic nanoclusters, Ashraf M. Mahmoud, Samer S. Abu-

- Alrub, Ali O. Al-Qarni, Bandar A. Alyami, **Mohamed M. El-Wekil**, Mohamed Oraby. *Microchem. J.* 199 (2024), Article 110012.
24. Selective fluoride detection based on modulation of red emissive carbon dots fluorescence by zirconium-alizarin complex: Application to Nile River water and human saliva samples, Yahya S. Alqahtani, Ashraf M. Mahmoud, **Mohamed M. El-Wekil**, Al-Montaser Bellah H. Ali. *Microchem. J.* 198 (2024), Article 110184.
25. Methylene blue-assisted molecularly-imprinted film modified nitrogen and sulfur co-doped molybdenum carbide for simultaneous electrochemical determination of two hepatotoxic drugs, Ali O. Alqarni, Ashraf M. Mahmoud, Bandar A. Alyami, Ramadan Ali, **Mohamed M. El-Wekil**. *Microchimica Acta* 191(2024), p. 123.
26. Ultrasensitive fluorometric determination of aluminum using the CoFe₂O₄ NPs/SDS/oxine system with the aid of ultrasound waves, Yahya S. Alqahtani, Ashraf M. Mahmoud, **Mohamed M. El-Wekil**. *Anal. Methods* 16 (2024), pp. 1804-1810
27. Cobalt-modulated dual emission carbon dots for ratiometric fluorescent vancomycin detection, Khalid Alhazzania, Ahmed Z. Alanazi, Aya M. Mostafa, James Barker, **Mohamed M. El-Wekil**, Al-Montaser Bellah H. Ali. *RSC Adv.*, 14 (2024), pp. 5609-5616.
28. Surface engineering of carbon microspheres with nanoceria wrapped on MWCNTs: a dual electrocatalyst for simultaneous monitoring of molnupiravir and paracetamol, Yahya S. Alqahtani, Ashraf M. Mahmoud, **Mohamed M. El-Wekil**, Hossieny Ibrahim. *RSC Adv.* 14 (2024), pp. 5406-5416.
29. A novel microextraction technique aided by air agitation using a natural hydrophobic deep eutectic solvent for the extraction of fluvastatin and

- empagliflozin from plasma samples: application to pharmacokinetic and drug–drug interaction study, Khalid Alhazzani, Ahmed Z. Alanazi, Aya M. Mostafa, James Barker, **Mohamed M. El-Wekil**, Al-Montaser Bellah H. Ali., RSC Adv. 13 (2023), pp. 31201-31212.
30. A selective dual quenching sensor (EY/BG@CDs) for simultaneous monitoring of gentamicin and ketorolac levels in plasma: a highly efficient platform that caters to the needs of therapeutic drug monitoring. Khalid Alhazzani, Ahmed Z. Alanazi, Aya M. Mostafa, James Barker, **Mohamed M. El-Wekil**, Al-Montaser Bellah H. Ali. RSC Adv. 13 (2023), pp. 28940-28950.
31. Fired brick microparticles assisted oxidative radical polymerization of pyrrole for electrochemical sensing: Application to the determination of ciprofloxacin and metanil yellow in food products and environmental samples. Ali O Alqarni, Ashraf M. Mahmoud , Bandar A. Alyami , **Mohamed M. El-Wekil**, Al-Montaser Bellah H. Ali. 195 (2023), Article 109486.
32. Electrostatically-driven self-assembly of copper nanoclusters and carbon dots for quantitative protamine and heparin determination. Saad A. Alkahtani, Ashraf M. Mahmoud, Rasha M.K. Mohamed, **Mohamed M. El-Wekil**. Accepted for publication in Microchemical Journal 195 (2023), Article 109404.
33. Intrinsic self-calibration electrostatic-controlled ratiometric fluorescence assay of histamine in human serum and canned tuna fish samples. Bandar A. Alyami, Ashraf M. Mahmoud, Ali O Alqarni, **Mohamed M. El-Wekil**. Accepted for publication in Microchemical Journal 195 (2023), Article 109388.
34. Ultrasensitive and selective determination of naringin using eggplant peel-derived nitrogen doped-carbon dots after extraction with Amberlite IRA-400: Evaluation the bitterness of grapefruit juice. Ashraf M. Mahmoud, Saad A. Alkahtani, Yahya S. Alqahtani, Rasha M.K. Mohamed, **Mohamed M. El-**

- Wekil**, Al-Montaser Bellah H. Ali. *Microchemical Journal* 194 (2023), Article 109358.
35. Monitoring antiviral active metabolite (N-hydroxycytidine) levels in plasma in presence of carboxylesterase-2 inhibitor verapamil using copper tetracyanoquinodimethane enhanced sensor. hmed Z Alanazi, Khalid Alhazzani, Aya M Mostafa, James Barker, Sabrein H Mohamed, **Mohamed M El-Wekil**, Al-Montaser Bellah H Ali. *Microchemical Journal* 194 (2023), Article 109330.
36. Ratiometric fluorescence sensing of hazardous ciprofloxacin based on aggregation induced emission enhancement of thiolate-protected gold nanoclusters induced by La³⁺ ion. Ashraf M Mahmoud, Mater H Mahnashi, **Mohamed M El-Wekil**. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy* 304 (2024), Article 123347.
37. An innovative dual-signal electrochemical ratiometric determination of creatinine based on silver nanoparticles with intrinsic self-calibration property for bimetallic Prussian blue analogues. Ashraf M Mahmoud, Mater H Mahnashi, **Mohamed M El-Wekil**. *Anal. Bional. Chem.* 415(2023), pp. pages6247–6256
38. Double protein directed synthesis of chemically etched sulfur doped quantum dots for signal “on–off–on” sensing of glutathione mediated by copper ions. Ashraf M. Mahmoud, Mater H. Mahnashi, **Mohamed M. El-Wekil**. *Analytical Methods* 15 (2023), pp. 4296-4303.
39. Selective detection of rutin at novel pyridinic-nitrogen-rich carbon dots derived from chicken feet biowaste: The role of bovine serum albumin during the assay. Saad A. Alkahtani, Ashraf M. Mahmoud, Yahya S. Alqahtani, Al-Montaser Bellah H. Ali, **Mohamed M. El-Wekil**. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy* 303 (2023), Article 123252.

40. Facile fabrication of boron and nitrogen co-doped carbon dots for “ON–OFF–ON” fluorescence sensing of Al^{3+} and F^- ions in water sample. Yahya S. Alqahtani, Ashraf M. Mahmoud, Mater H. Mahnashi, Ramadan Ali, Reem Y. Shahin, **Mohamed M. El-Wekil**, Hany A. Batakoushy. RSC Adv. 13 (2023), pp. 23736-23744.
41. Coordinated molecularly imprinted-based ratiometric sensor for electrochemical sensing of hazardous ciprofloxacin based on nitrogen and sulfur co-doped porous carbon/silver nanoparticles hybrid. Ashraf M. Mahmoud, Samer S. Abu-Alrub, Ali O. Al-Qarni, F.M. Alshareef, **Mohamed M. El-Wekil**. Microchem. J. 193 (2023), Article 109083
42. An innovative enzyme-free ratiometric determination of uric acid based on polyethyleneimine modified graphene quantum dots pretreated with iodate combined with eosin Y. Mater H. Mahnashi, Ashraf M. Mahmoud, **Mohamed M. El-Wekil**, Reem Y. Shahin. Microchem. J. 193 (2023), 109062.
43. A reliable ratiometric fluorescence sensing of heparin and its antidote based on cationic carbon quantum dots and acid red 87. Khalid Alhazzani, Alanazi A.Z., Ali M. Alaseem, Saeed Abdullah Al Awadh , Saleh A. Alanazi, Abdulaziz Abdullah AlSayyari, Mohammed M. Alanazi, **Mohamed M. El-Wekil**. Microchem. J.190 (2023), Article 108666.
44. A molecularly imprinted electrochemical sensor for specific and ultrasensitive determination of an aminoglycoside drug: the role of copper ions in the determination. AZ Alanazi, Khalid Alhazzani, Ali M Alaseem, Abdullah R Alanzi, Saeed Abdullah Al Awadh, Fahaad S Alenazi, Ahmad J Obaidullah, **Mohamed M El-Wekil**. Analyst 148 (2023), pp. 2170-2179.
45. Convenient electrochemical and fluorometric dual-mode estimation of diosmin

- using carbon dots doped with nitrogen derived from chicken feet biowaste. Ashraf M. Mahmoud, Samer S. Abu-Alrub, Ali O. Alqarni, **Mohamed M. El-Wekil**, Al-Montaser Bellah H. Ali. *Microchem. J.* 191 (2023), Article 108929.
46. Synergistic effect of gold nanoparticles anchored on conductive carbon black as an efficient electrochemical sensor for sensitive detection of anti-COVID-19 drug Favipiravir in absence and presence of co-administered drug Paracetamol. Rasha MK Mohamed, Sabrein H Mohamed, Aml M Asran, Ibrahim H Alsohaimi, Hassan MA Hassan, Hossieny Ibrahim, **Mohamed M El-Wekil**. *Microchem. J.* 190 (2023), Article 108696.
47. A dual-recognition-controlled electrochemical biosensor for selective and ultrasensitive detection of acrylamide in heat-treated carbohydrate-rich food. Ramadan Ali, **Mohamed M El-Wekil**. *Food Chemistry* 413 (2023), Article 135666.
48. Bifunctional ratiometric sensor based on highly fluorescent nitrogen and sulfur biomass-derived carbon nanodots fabricated from manufactured dairy product as a precursor. Rasha MK Mohamed, Sabrein H Mohamed, Aml M Asran, Ibrahim H Alsohaimi, Hassan MA Hassan, Hossieny Ibrahim, **Mohamed M El-Wekil**. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy* 293 (2023), Article 122444.
49. Functionalized vanadium disulfide quantum dots as a novel dual-mode sensor for ultrasensitive and highly selective determination of rutin. Ashraf M. Mahmoud, Mater H. Mahnashi, F.M. Alshareef, **Mohamed M. El-Wekil**. *Microchem. J.* 187 (2023), Article 108430.
50. Facile fabrication of a superior electrochemical sensor with anti-fouling properties for sensitive and selective determination of glutathione. Ashraf M. Mahmoud,

- Bandar A. Alyami, Mater H Mahnashi, F.M. Alshareef, Yahya S. Alqahtan, Mohamed M. El-Wekil. *Microchem. J.* 187 (2023), Article 108419.
51. Ratiometric sensing interface for glutathione determination based on electro-polymerized copper-coordinated molecularly imprinted layer supported on silver/porous carbon hybrid. Ashraf M. Mahmoud, Mater H. Mahnashi, Mohamed M. El-Wekil. *Anal. Chim. Acta* 1272 (2023), Article 341498.
52. Construction of MIP/Bi₂S₃ nanoparticles/rGO nanoprobe for simultaneous electrochemical determination of amoxicillin and clavulanic acid. Ramadan Ali, Mohamed M. El-Wekil. *Journal of Alloys and Compounds* 962 (2023), Article 171180.
53. Nanocomposite of gold nanoparticles@ nickel disulfide-plant derived carbon for molecularly imprinted electrochemical determination of favipiravir. **Mohamed M. El-Wekil**, Alaa M. Hayallah, Mohamed A. Abdelgawad, Mohammed A.S. Abourehab, Reem Y. Shahin. *J. Electroanal. Chem.* 922 (2022), Article 116745.
54. Bifunctional nanoprobe for dual-mode detection based on blue emissive iron and nitrogen co-doped carbon dots as a peroxidase-mimic platform. Yahya S. Alqahtani, Ashraf M. Mahmoud, **Mohamed M. El-Wekil**. *Talanta* 253 (2023), Article 124024.
55. An innovative dual recognition aptasensor for specific detection of *Staphylococcus aureus* based on Au/Fe₃O₄ binary hybrid. **Mohamed M El-Wekil**, Hamada Mohamed Halby, Mahmoud Darweesh, Mohamed E Ali, Ramadan Ali.. *Sci. reports* 12 (2022), Article 12502.
56. Double-signal quantification of amoxicillin based on interaction with 4-aminoantipyrine at copper and nitrogen co-doped carbon quantum dots as an artificial nanozyme. Ashraf M. Mahmoud, **Mohamed M. El-Wekil**, Ramadan Ali, Hany A. Batakoushy, Reem Y. Shahin.. *Microchimica Acta* 189 (2022) 183.

57. Electrochemical sensing of copper-chelator D- penicillamine based on complexation with gold nanoparticles modified copper based-metal organic frameworks. Saad A. Alkahtani, Ashraf M. Mahmoud, **Mohamed M. El-Wekil**. Journal of Electroanalytical Chemistry 908 (2022) 116102.
58. Highly selective and sensitive electrochemical determination of cysteine based on complexation with gold nanoparticles modified copper based-metal organic frameworks. Ashraf M. Mahmoud, Saad A. Alkahtani, **Mohamed M. El-Wekil**. Analytical and Bioanalytical Chemistry 414 (2022) 2343–2353.
59. Fluorometric and electrochemical dual-mode detection of toxic flavonoid rutin based on new nitrogen and sulfur co-doped carbon dots: Enhanced selectivity based on masking the interfering flavonoids with BSA complexation. Ashraf M. Mahmoud, Mater H. Mahnashi, Adel Al Fatease, Mahmoud A.H. Mostafa, **Mohamed M. El-Wekil**, Ramadan Ali. Journal of Food Composition and Analysis 108 (2022), 104428.
60. Indirect differential pulse voltammetric determination of fluoride ions at carbon paste electrode modified with porous and electroactive $\text{Fe}^{3+}/\text{Fe}^{2+}$ based-metal organic frameworks type MIL-101(Fe). Ashraf M. Mahmoud, Mater H. Mahnashi, Samer S. Abu-Alrub, Saad A. Alkahtani, **Mohamed M. El-Wekil**. J. Electrochem. Soc. 168 (2021) 126525.
61. Ultrasensitive and selective molecularly imprinted electrochemical oxaliplatin sensor based on a novel nitrogen-doped carbon nanotubes/Ag@cu MOF as a signal enhancer and reporter nanohybrid. Mater H. Mahnashi, Ashraf M. Mahmoud, Khalid Alhazzani, A. Z. Alanazi, Ali Mohammed Alaseem, Mohammad M. Algahtani & **Mohamed M. El-Wekil**. Microchimica Acta 188 (2021) 124.
62. NiFe_2O_4 nanospheres functionalized with 2-(2, 4-Dihydroxyphenyl)-3, 5, 7-trihydroxychromen-4-one for selective solid-phase microextraction of aluminium.

- Bandar A. Alyami, Ashraf M. Mahmoud, Saad A. Alkahtani, **Mohamed M. El-Wekil**. Talanta 226 (2021) 122167.
63. Nitrite fluorometric nanoprobes based on α -MnO₂ nanorods functionalized with a fluorescence reporter dye. Hassan Refat H. Ali, Ahmed I. Hassan, Yasser F. Hassan, **Mohamed M. El-Wekil**. Microchemical Journal 164 (2021) 105982.
64. Simultaneous electrochemical detection of azithromycin and hydroxychloroquine based on VS₂ QDs embedded N, S @graphene aerogel/cCNTs 3D nanostructure. Mater H. Mahnashi, Ashraf M. Mahmoud, Saad A. Alkahtani, **Mohamed M. El-Wekil**. Microchemical Journal 163 (2021) 105925.
65. Nitrogen and sulfur co-doped graphene quantum dots/nanocellulose nanohybrid for electrochemical sensing of anti-schizophrenic drug olanzapine in pharmaceuticals and human biological fluids. Ashraf M. Mahmoud, Mater H. Mahnashi, Saad A. Alkahtani, **Mohamed M. El-Wekil**. International Journal of Biological Macromolecules 165, Part B (2020) 2030-2037.
66. Ivermectin detection using Ag@ B, S co-doped reduced graphene oxide nanohybrid. Mater H. Mahnashi, Ashraf M. Mahmoud, Saad A. Alkahtani, **Mohamed M. El-Wekil**. Journal of Alloys and Compounds 871 (2021) 159627.
67. Facile one pot sonochemical synthesis of layered nanostructure of ZnS NPs/rGO nanosheets for simultaneous analysis of daclatasvir and hydroxychloroquine. Saad A. Alkahtani, Ashraf M. Mahmoud, Mater H. Mahnashi, Ali O. AlQarni, Yahya S. A. Alqahtani, **Mohamed M. El-Wekil**. Microchemical Journal 164 (2021) 105972.
68. Mannitol capped magnetic dispersive micro-solid-phase extraction of polar drugs sparfloxacin and orbifloxacin from milk and water samples followed by selective fluorescence sensing using boron-doped carbon quantum dots. Hassan Refat H. Ali, Ahmed I. Hassan, Yasser F. Hassan, **Mohamed M. El-Wekil**. Journal of

- Environmental Chemical Engineering 9 (2021) 105078.
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VI. Peer-reviewed conference contributions

1. “Voltammetric analysis of ATPase inhibitor using redox mediator platform: application in biological fluids”, Pakinaz Y. Khashaba, Hassan Refat H. Ali, Mohamed M. El-Wekil, AICPD2017, 13-15 September, 2017, Hurghada, Egypt.
2. “Cyclic voltammetric study for determination of omeprazole and lansoprazole in pure forms and pharmaceutical formulation using pencil graphite electrode and anionic surfactant”, Michael E. El-Kommos, Pakinaz Y. Khashaba, Hassan Refat H. Ali, Mohamed M. El-Wekil, Assiut University 10th Pharmaceutical Sciences Conference. 13-14 March 2016, Assiut, Egypt.
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VII. Reviewer

Biosensors and Bioelectronics, Talanta, Analytical Methods, Colloids and Surfaces A, Spectrochimica acta A, Analytical Letters, Plos One, Environmental Chemical Engineering Journal, ChemsitrySelect, Inorganic Chimica Acta, Current pharmaceutical analysis, RSC Advances, Electroanalysis, Biomass valorization, Microchimica Acta, Materials Chemistry and Physics, Journal of nanostructure in Chemistry, Journal of Electrochimica Acta, Journal of Electroanalytical Chemistry, Chemical Engineering Journal, Journal of Food and Drug Composition, International Journal of Electrochemical Science, Journal of Food Chemistry, Journal of applied Materials (ACS), Journal of Molecular Structure, Bulletin of Pharmaceutical Science (Assiut University), Journal of Analytica Chimica Acta.

VIII. Editorial board member

1. Analytical Chemistry: An Indian Journal ISSN (PRINT): 0974-7419

Link of the Journal <https://www.tsijournals.com/journals/analytical-chemistry-an-indian-journal.html>

2. Journal of Modern Biology and Drug Discovery

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