

Abdallah Mohammed Zeid (Abdallah M. Zeid)

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E-mail(s): amzeid@umich.edu; dr_abdallah_zeid@mans.edu.eg
Nationality: Egyptian
Place of Birth: Mansoura, Egypt
Marital status: Married
Date of Birth: January 15, 1988

EDUCATION:

2013 – 2017: Ph.D. in Pharmaceutical Sciences (Analytical Chemistry) - Channel System between Nagoya University and Mansoura University

1- Baba Lab, Dept. of Biomolecular Engineering, Nagoya University, Japan (Supervised by Prof. Yoshinobu Baba and Prof. Kaji).

2- Pharmaceutical Analytical Chemistry Dept., Faculty of Pharmacy, Mansoura University, Mansoura, Egypt.

Dissertation title: Analysis of Certain Drugs Affecting the Nervous System in Pharmaceutical Formulations and Biological Fluids.

2010 – 2012: M.Sc. in Pharmaceutical Sciences (Analytical Chemistry)

Pharmaceutical Analytical Chemistry Dept., Faculty of Pharmacy, Mansoura University, Mansoura, Egypt.

Thesis title: Analysis of Certain Binary Mixtures in Pharmaceutical Formulations.

2004– 2009: B.Sc. in Pharmaceutical Sciences

Faculty of Pharmacy, Mansoura University, Mansoura, Egypt. **Excellent, High Honor, Ranked 4th.**

Academic Positions:

Jan 2023–Present: [Postdoctoral Research Fellow](#)

Department of Chemistry, LSA, University of Michigan, Ann Arbor, Michigan, USA.

Jan 2023–Present: **Associate Professor (On Leave)**

Dept. of Pharm. Anal. Chemistry, Faculty of Pharmacy, Mansoura University, Mansoura, Egypt.

Dec 2017–Jan 2023: **Assistant Professor/Lecturer**

Dept. of Pharm. Anal. Chemistry, Faculty of Pharmacy, Mansoura University, Mansoura, Egypt.

Apr 2021–Dec 2022: **Postdoctoral Fellow (CAS President's International Fellowship Initiative (PIFI))**

State Key Laboratory of Electroanalytical Chemistry, Changchun Institute of Applied Chemistry, Chinese Academy of Sciences, Changchun, China.

Jul 2015–Jun 2017: **Special Research Student (Conducting PhD research)**

Dept. of Biomolecular Engineering, Graduate School of Engineering, Nagoya University, Japan.

Nov 2012–Dec 2017: **Assistant Lecturer**

Dept. of Pharm. Anal. Chemistry, Faculty of Pharmacy, Mansoura University, Mansoura, Egypt.

Oct 2009–Nov 2012: **Demonstrator/Teaching assistant**

Dept. of Pharm. Anal. Chemistry, Faculty of Pharmacy, Mansoura University, Mansoura, Egypt.

Teaching Experiences:

Undergraduate

2017 – 2021:

Teaching Physical & Inorg. Chem. (PC101), Pharm. Anal. Chem. I (PC205), Instrumental Anal. (PC407), and Adv. Pharm. Anal.-Spectrosc. (PC E12) courses for **clinical pharmacy** students, Mansoura University.

Teaching different Analytical Chemistry courses for undergraduate **Pharm D** students, Mansoura University.

2009 – 2015:

Teaching practical lessons of all pharmaceutical analytical chemistry courses for undergraduate pharmacy students.

Postgraduate

2018 – 2021:

Teaching Instrumental Analysis I (QC111) and Instrumental Analysis II (QC126) courses for Professional Master of Quality Control postgraduate students.

TRAINING COURSES & CONFERENCES:

A. Workshops and Training Courses

- Basic Rodent Surgery - ULAM-11751 (30 August **2023**) at University of Michigan.
- Animal Room Procedures for Rodents Workshop - ULAM-10132 (14 August **2023**) at University of Michigan.
- Laboratory Rat Workshop - Virtual Workshop - ULAM-10110A (9 August **2023**) at University of Michigan.
- Laboratory Rat Workshop - Handling - ULAM-10110B (4 August **2023**) at University of Michigan.
- Rodent Survival Surgery - ULAM-10120 (17 July **2023**) at University of Michigan.
- Orientation to Animal Care and Use at the Univ. of Mich. - ULAM-10000 (16 July **2023**) at University of Michigan.
- Using "Design-Expert" software for analytical method development (28–29 August **2022**) at Mansoura University.
- NMR spectroscopy from scratch (27 August **2022**) at Mansoura University.

- Miniaturization and automation of oligonucleotide sample preparation (28 July **2022**), Organized by Phenomenex.
- Nature Research Academies workshop: Systematic Reviews and Meta-analyses (17 January **2022**).
- Laboratory waste management/ General safety for experimental work (12 Dec **2016**) at Nagoya University.
- Laboratory waste management/ High pressure gas handling safety (28 Dec **2015**) at Nagoya University.

B. Conferences:

- The 46th International Symposium on High Performance Liquid Phase Separations and Related Techniques (**HPLC 2017**), Nov 5-9, 2017; International Convention Center, Jeju, Korea).
- The 20th International Conference on Miniaturized Systems for Chemistry and Life Sciences (**MicroTAS 2016**), Oct 9-13, 2016, Dublin, Ireland.

SCHOLARSHIPS & FELLOWSHIPS:

- **NIH-Funded Postdoctoral Research Fellowship**, University of Michigan, USA: **Jan 2023–Present**.
- **CAS President's International Fellowship Initiative (PIFI)**, a postdoctoral fellowship in China: **Apr 2021–Dec 2022**.
- **Graduate Joint Supervision Scholarship for Ph.D. Study**, Nagoya University, Nagoya, Japan: **Jul 2015–Jun 2017**.

PROJECTS:

1. Development of smart electrochemiluminescent sensors for detection of toxic pesticides in drinking and environmental water (**Funding Organization**: Mansoura University - Egypt, 2022–present).
2. Novel lab-on-a-chip multiplexed nanobiosensor for ultrafast point of care diagnosis of lung cancer (**Funding Organization**: Chinese Academy of Science (CAS) – China, April 2022 – Dec. 2023).

RESEARCH INTEREST:

1. LC-MS/MS in vivo analysis of neuropeptides and neuroproteins using novel microfluidic-based microdialysis probes.
2. Development of novel electrochemiluminescence (ECL) and chemiluminescence (CL) sensors for the detection of environmental and biological molecules in real samples.
3. Lab-on-a-Chip electrophoretic analysis of pharmaceutical compounds and biomolecules.
4. Enantioseparation of chiral compounds using CD-electrokinetic chromatography in/on capillary and microchip platforms.
5. Integration of nanostructures into microfluidic channels for separation of biomolecules and POCT of specific biomarkers.
6. Green capillary electrophoretic and liquid chromatographic assay of pharmaceutical compounds and biomolecules.

LIST OF PUBLICATIONS:

I. PAPERS PUBLISHED/ACCEPTED IN PEER REVIEWED JOURNALS

1. A.A. El-Masry*, **A.M. Zeid***, Nano-scale analytical insights for determination of vonoprazan and aspirin in a recently approved combined preparation utilizing nucleophilic substitution reaction, along with evaluation approaches for both greenness and whiteness, *Microchem. J.*, **197 (2024)**, 109788.
2. H. Abd El-Aziz, **A.M. Zeid***, Derivatization-free conventional and synchronous spectrofluorimetric estimation of atenolol and amlodipine, *Spectrochim. Acta A Mol. Biomol. Spectrosc.*, **305 (2024)** 123532.
3. S.M. Abo Elkheir, J.J.M. Nasr, M.I. Walash, **A.M. Zeid***, Green spectrophotometric and spectrofluorimetric determination of biperiden hydrochloride using erythrosine B sensing probe, *Luminescence*, **39 (2024)** e4725.
4. **A.M. Zeid**, I.M. Mostafa, B. Lou*, G. Xu*, Advances in Miniaturized Nanosensing Platforms for Analysis of Pathogenic Bacteria and Viruses, *Lab Chip*, **23 (2023)** 4160-4172.
5. **A.M. Zeid**, A. Abdussalam, S. Hanif, S. Anjum, B. Lou*, G. Xu*, Recent Advances in Microchip Electrophoresis for Analysis of Pathogenic Bacteria and Viruses, *Electrophoresis*, **44 (2023)** 15–43.
6. K. Ji, S. Xia, X. Sang, **A.M. Zeid**, A. Hussain, J. Li, G. Xu*, Enhanced luminol chemiluminescence with oxidase-like properties of FeOOH nanorods for sensitive detection of uric acid, *Anal. Chem.*, **95 (2023)** 3267–3273.
7. A. El-Masry*, **A.M. Zeid***. Acriflavine: an efficient green fluorescent probe for sensitive analysis of aceclofenac in pharmaceutical formulations, *BMC Chem.*, **17 (2023)** 93.
8. R. Aboshabana, **A.M. Zeid***, F.A. Ibrahim, Label-free green estimation of atenolol and ivabradine hydrochloride in pharmaceutical and biological matrices by synchronous spectrofluorimetry, *Spectrochim. Acta A*, **295 (2023)** 122626.
9. M. S. Imam, A.H. Abdelazim*, S. Ramzy, A. S. Batubara, M. Gamal, S. Abdelhafiz, **A.M. Zeid**, Adjusted green spectrophotometric determination of favipiravir and remdesivir in pharmaceutical form and spiked human plasma sample using different chemometric supported models, *BMC Chem.*, **17 (2023)** 89.
10. H.S. Elama*, **A.M. Zeid**, S.M. Shalan, Y. EL-Shabrawy, M.I. Eid, Eco-friendly spectrophotometric methods for determination of remdesivir and favipiravir; the recently approved antivirals for COVID-19 treatment, *Spectrochim. Acta A: Mol. Biomol. Spectrosc.*, **287 (2023)** 122070.
11. M. E. K. Wahba*, A. Ayman, **A.M. Zeid**, Y. EL-Shabrawy, M. E. Draz, Portable and green solid contact potentiometric sensor for the rapid and direct assay of clozapine in post-mortem rat liver and dosage forms: An analytical approach to forensic and pharmaceutical samples, *Microchem. J.*, **186 (2023)**, 108364.

12. **A.M. Zeid***, A. El-Masry, D. R. El-Wasseef, M. Eid, I. A. Shehata, Green microemulsion electrokinetic chromatographic method for simultaneous determination of azelastine and budesonide, **Sust. Chem. Pharm.**, 29 (2022) 100795.
13. **A.M. Zeid***, R. Aboshabana, F.A. Ibrahim, First-order derivative synchronous spectrofluorimetric determination of two antihypertensive drugs, metolazone and valsartan, in pharmaceutical and biological matrices, **Spectrochim. Acta A Mol. Biomol. Spectrosc.**, 267 (2022) 120591.
14. F. Du, Z. Dong, Y. Guan, **A.M. Zeid**, D. Ma, J. Feng, D. Yang, G. Xu*, Single-electrode electrochemical system for visual and high-throughput electrochemiluminescence immunoassay, **Anal. Chem.**, 94 (2022) 2189-2194.
15. T.H. Barkae, S. Quan, Z. Dong, K. Li, A. Hussain, **A.M. Zeid**, G. Xu*, Derivatization-free Ru(bpy)₃²⁺ electrochemiluminescence detection of gramine, **J. Electroanal. Chem.**, 927 (2022) 116989.
16. X. Ma, M. Lv, F. Du, C. Wu, B. Lou, **A.M. Zeid**, G. Xu*, Dimeric G-Quadruplex: An Efficient Probe for Ultrasensitive Fluorescent Detection of Mustard Compounds, **Anal. Chem.**, 94 (2022) 4112–4118.
17. T.H. Barkae, **A.M. Zeid**, S. Quan, M.R. Gilani, B. Lou, G. Xu*, Development of Ru(bpy)₃²⁺ electrochemiluminescence sensor for highly sensitive detection of carcinogenic and mutagenic hexamethylphosphoramide, **J. Electroanal. Chem.**, 904 (2022) 115954.
18. H.S. Elama, **A.M. Zeid***, S.M. Shalan, Y. EL-Shabrawy, M.I. Eid, Conventional and synchronous spectrofluorometric determination of the recently administered drugs for treatment of COVID-19 favipiravir and apixaban, **Sci. Rep.**, 12 (2022) 21520.
19. T.H. Barkae, **A.M. Zeid**, G. Xu*, Highly sensitive detection of the insecticide azamethiphos by tris(2,2'-bipyridine)ruthenium(II) electrogenerated chemiluminescence, **Sensors**, 22 (2022) 2519.
20. K. Ji, F. Liu, T. H. Barkae, S. Quan, **A.M. Zeid**, W. Zhang, J. Li, G. Xu*, Development of lucigenin-*N*-hydroxyphthalimide chemiluminescence system and its application to sensitive detection of Co²⁺, **Spectrochim. Acta A**, 279 (2022) 121459.
21. S.M. Abo Elkheir, **A.M. Zeid***, J.J.M. Nasr, M.I. Walash, First derivative synchronous spectrofluorimetric analysis of bisoprolol fumarate and ivabradine in pharmaceutical and biological matrices. Investigation of the method greenness, **Luminescence**, 37 (2022) 1657-1665.
22. A. El-Masry, D. R. El-Wasseef, M. Eid, I. A. Shehata, **A.M. Zeid***, Development of three ecological spectroscopic methods for analysis of betrixaban either alone or in mixture with lercanidipine. Greenness assessment, **R. Soc. Open Sci.**, 9 (2022) 211457.
23. H.S. Elama*, S.M. Shalan, Y. EL-Shabrawy, M.I. Eid, **A.M. Zeid**, Utilization of a micellar matrix for simultaneous spectrofluorimetric estimation of alfuzosin hydrochloride and vardenafil hydrochloride, **Spectrochim. Acta A: Mol. Biomol. Spectrosc.**, 266 (2022) 120420.
24. H.S. Elama*, S.M. Shalan, Y. EL-Shabrawy, M.I. Eid, **A.M. Zeid**, A synchronous spectrofluorometric technique for simultaneous detection of alfuzosin and tadalafil: applied to tablets and spiked biological samples, **R. Soc. Open Sci.**, 9 (2022) 220330.
25. A. Ayman, **A.M. Zeid**, M. E. K. Wahba*, Y. EL-Shabrawy, Simultaneous determination of ergotamine, caffeine and dipyrone in their ternary mixture by applying double divisor and first derivative ratio spectra methods, **Annales Pharmaceutiques Françaises**, 80 (2022) 718-729.
26. **A.M. Zeid***, N. Kaji, J.M. Nasr, F.F. Belal, M.I. Walash, Y. Baba, Microfluidic fast chiral separation of baclofen and phenylalanine enantiomers based on cyclodextrin-electrokinetic chromatography, **Microchem. J.**, 160 (2021) 105770.
27. **A.M. Zeid***, J.M. Nasr, F.F. Belal, M.I. Walash, Y. Baba, N. Kaji, Determination of three antiepileptic drugs in pharmaceutical formulations using microfluidic chips coupled with light-emitting diode induced fluorescence detection, **Spectrochim. Acta A**, 246 (2021) 119021.
28. **A.M. Zeid**, A. H. Abdelazim*, M. Shahin, Simultaneous spectrophotometric quantitative analysis of elbasvir and grazoprevir using assisted chemometric models, **Spectrochim. Acta A Mol. Biomol. Spectrosc.**, 252 (2021) 119505.
29. K.A.M. Attia, N.M. El-Abasawi, A. El-Olemy, A.H. Abdelazim*, A.I. Goda, M. Shahin, **A.M. Zeid**, Simultaneous spectrophotometric quantitative analysis of velpatasvir and sofosbuvir in recently approved FDA pharmaceutical preparation using artificial neural networks and genetic algorithm artificial neural networks, **Spectrochim. Acta A**, 251 (2021) 119465.
30. A. A. El-Masry, D. R. El-Wasseef, M. Eid, I. A. Shehata, **A.M. Zeid***, Quantitative proton NMR method for simultaneous determination of fluticasone and azelastine hydrochloride in nasal spray formulation, **R. Soc. Open Sci.**, 8 (2021) 210483.
31. A. A. El-Masry, D. R. El-Wasseef, M. Eid, I. A. Shehata, **A.M. Zeid***, Optimization and validation of a facile RP-HPLC method for determination of betrixaban and lercanidipine in pharmaceutical and biological matrices, **J. Chromatogr. Sci.**, 59 (2021) 785–794.

32. A. Ayman, Y. EL-Shabrawy, **A.M. Zeid**, M.E.K. Wahba*, A diagnostic intoxication tool for clozapine and phenytoin using hybrid micelle liquid chromatography, *J. Taibah Univ. Sci.*, **15** (2021) 87-96.
33. A. A. El-Masry*, **A. M. Zeid**, D. R. El-Wasseef, M. Eid, I. A. Shehata, A Validated Quantitative ¹H Nuclear Magnetic Resonance (¹H-qNMR) Method for Quantification of a Novel Anti-Coagulant Drug (Betrixaban Maleate) with Assessing Its Stability by Application to Degradation Study, *Anal. Chem. Lett.*, **10** (2020) 768-783.
34. A. Ayman, **A.M. Zeid**, M. E. K. Wahba, Y. EL-Shabrawy*, Analysis of clozapine in its tablets using two novel spectrophotometric reactions targeting its tertiary amino group, *Spectrochim. Acta A*, **238** (2020) 118447.
35. **A. M. Zeid***, N. Kaji, J.M. Nasr, F.F. Belal, M.I. Walash, Y. Baba, Determination of Baclofen and Vigabatrin by Microchip Electrophoresis with Fluorescence Detection: Application of Field-Enhanced Sample Stacking and Dynamic pH Junction, *New J. Chem.*, **42** (2018) 9965-9974.
36. **A.M. Zeid***, N. Kaji, J.M. Nasr, F.F. Belal, Y. Baba, M.I. Walash, Stacking-cyclodextrin-microchip electrokinetic chromatographic determination of gabapentinoid drugs in pharmaceutical and biological matrices, *J. Chromatogr. A*, **1503** (2017) 65-75.
37. **A. M. Zeid***, J.M. Nasr, F.F. Belal, S. Kitagawa, N. Kaji, Y. Baba, M.I. Walash, Determination of six anti-Parkinson drugs using cyclodextrin-capillary electrophoresis method: application to pharmaceutical dosage forms, *RSC Adv*, **6** (2016) 17519-17530.
38. M. Sharaf El-Din, M. Eid, **A. Zeid***, Facile derivative spectrophotometric analysis of ibuprofen and methocarbamol in their combined tablets, *Anal. Chem. Lett.*, **6** (2016) 569-578.
39. M. Sharaf El-Din, M. Eid, **A. M. Zeid***, Simultaneous determination of methocarbamol and aspirin binary mixture in their combined tablets by derivative and ratio derivative spectrophotometry. *Anal. Methods*, **7** (2015) 5674-5681.
40. M. Sharaf El-Din, M. Eid, **A. M. Zeid***, Simultaneous determination of methocarbamol and aspirin by RP-HPLC using fluorescence detection with time programming: its application to pharmaceutical dosage form. *Luminescence*, **28** (2013) 332-338.
41. M. Sharaf El-Din, M. Eid, **A. M. Zeid***, Simultaneous Determination of Methocarbamol and Ibuprofen in their Binary Mixtures using HPLC Method with Fluorescence Detection: Application to Combined Tablets. *J. Liq. Chromatogr. Related Technol.*, **36** (2013) 852-866.
42. M. Sharaf El-Din, M. Eid, **A. M. Zeid***, Development and validation of RP-HPLC method for simultaneous determination of ascorbic acid and salicylamide in their binary mixtures: application to combined tablets. *Journal of Chromatography & Separation Techniques*, **3** (2012) 1000137. <https://doi.org/10.4172/2157-7064.1000137>.

II. PAPERS/POSTERS PRESENTED IN INTERNATIONAL CONFERENCES:

1. A High-Sensitivity Cyclodextrin-Microchip Electrophoretic Simultaneous Analysis of Gabapentin and Pregabalin, **A. M. Zeid**, N. Kaji, J.M. Nasr, F.F. Belal, M.I. Walash, Y. Baba. **Proceeding: Micro Total Analysis Systems (μTAS) 2016, 2016, 1457-1458.**
2. Ultrafast Microchip Electrophoretic Simultaneous Analysis of Baclofen and Vigabatrin, **A. M. Zeid**, N. Kaji, F.F. Belal, M.I. Walash, Y. Baba. **HPLC 2017: 46th International Symposium on High Performance Liquid Phase Separations and Related Techniques, November 5-9, 2017, Jeju, Korea.**

SUPERVISING & MENTORING ACTIVITIES:

Current Postgraduate Student(s):

1. **Shrouk Abo Elkheir**, M.Sc. student, Mansoura University, **2019-present**, *Analysis of some drugs of low-doses in pharmaceutical formulations*, Co-supervised with Prof. Mohamed Walash and Prof. Jenny Jeehan Nasr.
2. **Engy Bakr**, M.Sc. student, Horus University, **2020-present**, *Analytical studies for determination of antifungals in pharmaceutical formulations and biological fluids*, Co-supervised with Prof. Yasser El-Shabrawy.

Graduated Student(s)

1. **Heba S. Elama**, Ph.D. student, Mansoura University, **2019-2022**, *New trends for estimation of certain amino compounds in pharmaceuticals and biological fluids*, Co-supervised with Prof. Manal Eid and Prof. Yasser El-Shabrawy.
2. **Amal A. Elmasry**, Ph.D, Mansoura University, **2018-2021**, *Estimation of certain recent drugs in their pharmaceutical formulations using different analytical techniques*, Co-supervised with Prof. Manal Eid, Prof. Dalia R. El-Wasseef.
3. **Aya Ayman**, M.Sc., Delta University, **2019-2021**, *Analytical study of some CNS drugs in pharmaceutical formulations and biological fluids*, Co-supervised with Prof. Yasser El-Shabrawy.

SCIENTIFIC ACTIVITIES:

1. Young Editor of Journal of Pharmaceutical Analysis (Elsevier), **2022–present**: [Editorial board - Journal of Pharmaceutical Analysis | ScienceDirect.com by Elsevier](#)

2. Member of the American Chemical Society (ACS) - Membership Number # 32729204.**3. Reviewer for the following journals:**

- ACS Measurement Science Au (ACS)
- Carbohydrate Polymers (Elsevier)
- Journal of Electroanalytical Chemistry (Elsevier)
- Journal of Molecular Liquids (Elsevier)
- Small Science (Wiley)
- Luminescence (Wiley)
- RSC Advances (RSC)
- Micromachines (MDPI)
- Pharmaceuticals (MDPI)
- JPC – J. Planar Chromatography (Springer Nature)
- BMC Chemistry (Biomed Central)
- Journal of Liquid Chromatography (Taylor & Francis)
- Current Pharmaceutical Analysis (Bentham Science)
- Indian J. of Pharm. Sciences (Medknow Publications)
- Biosensors and Bioelectronics (Elsevier)
- Journal of Pharmaceutical Analysis (Elsevier)
- Microchemical Journal (Elsevier)
- Spectrochimica Acta A (Elsevier)
- Electrophoresis (Wiley)
- Royal Soc. Open Sci. (The Royal Soc. Publishing)
- Anal. Methods (RSC)
- Molecules (MDPI)
- Scientific Reports (Springer Nature)
- Chemical Papers (Springer Nature)
- Separation Sci. and Technology (Taylor & Francis)
- Analytical Chemistry Letters (Taylor & Francis)
- Journal of AOAC International (AOAC International)
- Journal of Chromatographic Sci. (Oxford Academic)

▪ For more information:

- <https://www.webofscience.com/wos/author/record/403978>

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- [Zeid, A. M. - Author details - Scopus](#)