

Curriculum Vitae

**Yossra Ahmed
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Personal Information:

Date of birth: 13 June 1985

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Current Position

Associate Professor of Analytical Chemistry, Department of Pharmaceutical Analytical Chemistry, Faculty of pharmacy, Ain-Shams University.

Education

June 2016: Ph.D. in Pharmaceutical Sciences (Pharmaceutical Analytical Chemistry), Department of Pharmaceutical Analytical Chemistry, Faculty of pharmacy, Ain-Shams University.

December 2013: M.Sc. in Pharmaceutical Sciences (Pharmaceutical Analytical Chemistry), Department of Pharmaceutical Analytical Chemistry, Faculty of Pharmacy, Ain-Shams University.

May 2008: B.Sc. in Pharmaceutical Sciences, Faculty of Pharmacy, Ain Shams University with general grade "Excellent with Honor".

Experience

2023- current: Associate Professor of Analytical Chemistry, Department of Pharmaceutical Analytical Chemistry, Faculty of pharmacy, Ain-Shams University.

2023-current: Part-timer lecturer at the department of Analytical Chemistry, Faculty of pharmacy, Misr University for Science and Technology, 6 October city, Egypt.

2022- 2023: Postdoctoral scholar of Chemistry, Chemistry and Biochemistry Department, University of Maryland, College Park.

2016-2023: Assistant Professor of Analytical Chemistry, Department of Pharmaceutical Analytical Chemistry, Faculty of pharmacy, Ain-Shams University.

2020-2021: Part-timer lecturer at the department of Analytical Chemistry, Faculty of pharmacy, Misr University for Science and Technology, 6 October city, Egypt.

2018-2019: Part-timer lecturer at the department of Pharmaceutical Chemistry, Faculty of pharmacy, Ahram Canadian University, 6 October city, Egypt.

2014-2016: Assistant Lecturer of Analytical Chemistry, Department of Pharmaceutical Analytical Chemistry, Faculty of pharmacy, Ain-Shams University.

2009-2014: Teaching Assistant of Analytical Chemistry, Department of Pharmaceutical Analytical Chemistry, Faculty of pharmacy, Ain-Shams University.

Laboratory Skills and Research Interests

GC-MS, HPLC, LC-MS, UV, FTIR Spectroscopy, potentiometry, voltammetry and spectrofluorimetry, ion selective electrodes synthesis, nanomaterials' preparation and characterization, molecular imprinting polymer synthesis, Carbon dots preparation, home- made screen printing technique, sample collection and preparation for environmental analysis, extraction techniques.

Teaching Experience

- Taught undergraduate practical and theoretical courses for

pharmacy students, Faculty of pharmacy, Ain-Shams University, Cairo, Egypt, including inorganic chemistry, physical chemistry, pharmaceutical analytical chemistry, instrumental analysis, analytical quality control and food and cosmetic analysis (2009-current).

- Taught postgraduate courses for M.Sc. students, Faculty of Pharmacy, Ain Shams University, Cairo, Egypt, namely chromatographic analysis (2019-current).

Institutional services

- Head of the postgraduate committee for accreditation in faculty of pharmacy, Ain Shams University, (2016 – 2020), member of the postgraduate committee for accreditation in faculty of pharmacy, Ain Shams University(2021-till now).
- Member of postgraduate program's control, pre pharmacy year, level one, and level two students' control, and drug design program's control.
- Member of community service and environmental development committee, postgraduate studies committee, and teaching and students affairs committee.
- Supervisor of graduation projects for drug design program students (2016/2017), (2019/2020) and (2020,2021).
- Supervisor of graduation projects for PharmD students- Level six (2024/2025).
- Deputy director of the measurement and evaluation unit, Faculty of Pharmacy, Ain Shams University (2021- till now).
- LC-MS Analysis Expert at the Central Research Laboratory, faculty of pharmacy, Ain Shams University (March 2023- September 2023).

Computer Skills

- Microsoft office and Origin
- Adobe Photoshop
- Endnote, origin and Mendeley.

Language skills

- Arabic: Mother tongue
- English: Excellent command, reading and writing
- French: Basic knowledge

Personal skills:

- Having excellent research and teaching skills, enthusiastic, ambitious, hard worker, very precise, reliable, highly committed, able to collaborate in a team-oriented work environment, creative, problem solver, cooperative, possessing high communication skills, utilizing interactive presentation skills.

Academic Awards

- Best presentation award of graduation projects for drug design program (credit hours system), May 2020 for the project entitled " Simultaneous Determination of Thirteen Polycyclic Aromatic Hydrocarbons in Rat Plasma by Gas Chromatography- Mass Spectrometry Coupled with QuEChERS " during graduation project supervision.
- Graduation project supervision of graduation projects for drug design program students (credit

hours system), May 2017 and May 2021.

- Outstanding teaching performance appreciation certificate by regular second year students for teaching instrumental analysis course for academic year 2016-2017.
- Certificate of appreciation in honor of my achievement in international publication that will support Ain Shams University World ranking, received at 23-1-2022, and July 2022.
- Certificate of appreciation in honor of my achievement in international publication in Q1 journal, that will support Ain Shams University World ranking, received in January 2023.

Ph.D. and Master's Theses supervision

1. "Analytical study on certain functional polymers" (Master's Thesis, Ain Shams University).
2. "Integrated Bioanalytical Techniques for assessment of some Monoclonal Antibodies" (Ph.D. Thesis, Central administration of Biologics, Innovators and Clinical studies, EDA).
3. "Analytical investigation of certain anti diabetic drugs" (Master's Thesis, National Organization for Drug Control and Research, NODCAR).
4. "Analytical study on certain antibacterial veterinary drugs" (Master's Thesis, Ahram Canadian University).
5. "Analytical study on some drugs for treatment of Male Urological diseases" (Master's Thesis, Ain Shams University).
6. "Analytical Study on certain drugs for management of respiratory diseases" (Master's Thesis, Ain Shams University).
7. "Contribution of Analytical Chemistry to Studies of Carbohydrate-based Drugs" (Ph.D. Thesis, Ain Shams University).
8. "Analytical study on certain drugs used for treatment of sleep disorders" (Master's Thesis, Ain Shams University).
9. "Analytical investigation of some peptidic and non-peptidic anti-obesity therapies" (Master's Thesis, Ain Shams University).
10. "Analytical investigation of certain biomarkers for early diagnosis, and clinical monitoring of inborn errors of amino acid metabolism" (Master's Thesis, Ain Shams University).
11. "Analytical investigation of key drugs for endometriosis therapy" (Master's Thesis, Ain Shams University).

Publications

- "Sensitive voltammetric detection of bosentan using gold nanoparticles-decorated pencil graphite electrode in pharmaceutical formulations and plasma samples." **Yossra A. Trabik**, Reham A. Ismail, Miriam F. Ayad, Lobna Abd El-Aziz Hussein, and Amr M. Mahmoud. **Scientific Reports**. 2026 Mar 27.
- "Silver nanoparticles-based green fluorescent probe for determination of Bosentan in pharmaceutical formulation and spiked plasma samples." **Yossra A. Trabik**, Reham A. Ismail, Miriam F. Ayad, and Lobna Abd El-Aziz Hussein. **BMC Chemistry**. 2026 Feb 21;20(1):44.
- "Bioanalytically validated potentiometric method for determination of bisphenol A: Application to baby bibs, pacifiers, and Teethers' saliva samples." Eman Ali Al-Harbi, Amira Mabrouk El-Kosasy, and **Yossra A. Trabik**. **Reviews in Analytical Chemistry**. 2025 Jul 7;44(1):20250085.
- "Design of a core-shell molecularly imprinted polymer for highly selective detection of daclatasvir dihydrochloride in tablets and human plasma." Noha F. El Azab, Sally S. El-

Mosallamy, Amr M. Mahmoud, and **Yossra A. Trabik**. **Microchemical Journal**. 2025 Apr 21:113723.

- "First fluorescence method for monitoring the doping stimulant drug solriamfetol in plasma and urine: A pharmacokinetic study in volunteers' urine with greenness, whiteness, and blueness assessments." Marina Z. Kamel, Hend Z. Yamani, Lobna A. Hussein, and **Yossra A. Trabik**. **Microchemical Journal**, 207 (2024): 111930.
- "An Environmentally Friendly Chromatographic Technique for Estimating Four Co-Administered Medications in Solid Dosage Forms and Human Plasma for the Treatment of Benign Prostatic Hyperplasia." Mai Zahra, **Yossra Trabik**, Nancy Hana, and Maha Farouk. **Archives of Pharmaceutical Sciences Ain Shams University**, 8, no. 2 (2024): 224-244.
- "A bioanalytically validated RP-HPLC method for simultaneous quantification of rivaroxaban, paracetamol, and ceftriaxone in human plasma: a combination used for COVID-19 management." Reham A. Ismail, Miriam F. Ayad, Lobna Abd El-Aziz Hussein and **Yossra A. Trabik**. **Scientific Reports**, 14, no. 1 (2024): 25693.
- "Eco-friendly electrochemical assay of oxytetracycline and flunixin in their veterinary injections and spiked milk samples." **Yossra A. Trabik**, Miriam F. Ayad, Amr M. Mahmoud, Hind A. Abdullatif, and Adel M. Michael. **BMC chemistry**, 18, no. 1 (2024): 1-11.
- "Microfabricated potentiometric sensor based on a carbon nanotube transducer layer for selective Bosentan determination." **Yossra Ahmed Trabik**, Reham Abd El-Aziz Ismail, Miriam Farid Ayad, Lobna Abd El-Aziz Hussein, and Amr Mohamed Mahmoud. **Reviews in Analytical Chemistry**. (2024), 43, no. 1: 20230071. <https://doi.org/10.1515/revac-2023-0071>.
- "Optimization of feather degradation by a Bacillus thuringiensis isolate using response surface methodology and investigation of the feather protein hydrolysate structure" Nooran Sherif Elleboudy; **Yossra A. Trabik**; Mohammad Mabrouk Aboulwafa. **Biotechnology and Applied Biochemistry**. 2022 Dec 29. <https://doi.org/10.1002/bab.2436>.
- "Critical assessment of smart calculation-based spectroscopy versus chemometric-assisted methods: Application to combined antibiotic formulations", Hind Ali Abdullatif; Adel Magdy Michael; **Yossra Ahmed Trabik**; Miriam Farid Ayad, **European Journal of Chemistry**, 2022, 13(2), 214-223. DOI: 10.5155/eurjchem.13.2.214-223.2236.
- "Point-of-Care Diagnostics for Therapeutic Monitoring of Levofloxacin in Human Plasma Utilizing Electrochemical Sensor Mussel-Inspired Molecularly Imprinted Copolymer.", Noha F. El Azab, Amr M. Mahmoud, and **Yossra A. Trabik**, **Journal of Electroanalytical Chemistry**, 2022, 116504. <https://doi.org/10.1016/j.jelechem.2022.116504>.
- "Smart Eco-Friendly Spectrophotometric Methods Resolving Highly Overlapping Spectra: Application to Veterinary Antibiotic Injections", Nesma M. Fahmy, Hind A. Abdullatif, Adel M. Michael, Miriam F. Ayad, **Yossra A. Trabik**, **Journal of AOAC INTERNATIONAL**, 2022, qsac058. <https://doi.org/10.1093/jaoacint/qsac058>.
- "A Pilot Model for the Treatment of Slaughterhouse Wastewater Using Zeolite or Psidium-Leaf Powder as a Natural Coagulant, Followed by Filtration with Rice Straw, in Comparison with an Inorganic Coagulant", Fatma Abouelenien, **Yossra Ahmed Trabik**, Mustafa Shukry, Mohamed El-Sharnouby, Samy Sayed, Ahmed Gaber, and Nagham Rafeek Elsaidy, **Processes**, 2022, 10(5), 887. <https://doi.org/10.3390/pr10050887>.
- "Fourier Transform Infrared Spectroscopic, Spectrofluorimetric Assays of Canagliflozin, and Stability-Indicating UV-Spectrophotometric Method for the Simultaneous Determination of Canagliflozin and Metformin", Sarah Elnadi, Samah Abdalsabour, Maha Farouk, and **Yossra A. Trabik**, **Journal of AOAC INTERNATIONAL**, (2022), Vol. 00, No. 0, 1-8.

<https://doi.org/10.1093/jaoacint/qsac030>.

- "Stability indicating RP-HPLC and spectrophotometric methods for determination of gliflozins in their mixture with metformin", Sarah Elnadi, Samah Abdalsabour, Maha Farouk Abdalghany, and **Yossra A. Trabik**, **Journal of the Iranian Chemical Society** (2021) 1-13. DOI: 10.1007/s13738-021-02411-9
- "Investigation of a QuEChERS-Based Method for Determination of Polycyclic Aromatic Hydrocarbons in Rat Plasma by GC–MS.", El Azab, Noha F., Said F. Hotar, and **Yossra A. Trabik**, **Journal of Analytical Toxicology** (2021). <https://doi.org/10.1093/jat/bkab027>.
- "Spectrophotometric Determination of Polyvinyl Pyrrolidone in Pure and Pharmaceutical Dosage Form", Nourhan Kh Al-Afify, **Yossra A Trabik**, Amira M El-Kosasy, N. Magdy, **Journal of AOAC INTERNATIONAL**, 2021; qsaal77, <https://doi.org/10.1093/jaoacint/qsaa177>.
- "Potentiometric Carbon Quantum Dots-Based Screen-Printed Arrays for Nano-Tracing Gemifloxacin as a Model Fluoroquinolone Implicated in Antimicrobial Resistance". Ayad, M.F.; **Trabik, Y.A.**; Abdelrahman, M.H.; Fares, N.V.; Magdy, N. **Chemosensors** 2021, 9, 8. <https://doi.org/10.3390/chemosensors9010008>.
- "Application of Precipitation-Based and Nanoparticle-Based techniques for Fabrication of Potentiometric Sensors for Nanomolar Determination of Chitosan and Polyvinyl pyrrolidone in Pharmaceutical Formulations and Biological Fluids", **Trabik, Yossra**, Nourhan Al-Afify, Amira El-Kosasy, and Nancy Magdy, **Electroanalysis**, 33(5), 2021, 1233-1243. <https://doi.org/10.1002/elan.202060492>.
- "Analytical comparability study of anti-CD20 monoclonal antibodies rituximab and obinutuzumab using a stability-indicating orthogonal testing protocol: Effect of structural optimization and glycoengineering" **Yossra A. Trabik**, Eman M. Moenes, Medhat A. Al-Ghobashy, Marianne N. Morcos, and Miriam F. Ayad, **Journal of Chromatography B** 1159 (2020) 122359. <https://doi.org/10.1016/j.jchromb.2020.122359>.
- "Three Simple and Economic Spectrophotometric Methods for Simultaneous Determination of Chitosan and Ascorbic Acid" Nourhan Al-Afify, **Yossra A. Trabik**, Nancy Magdy and Amira M. El-Kosasy, **Archives of Pharmaceutical Sciences Ain Shams University**, vol.4 (2020) 92-103.
- "Biosimilarity Assessment of Rituximab and Comparability Evaluation of Glycol-engineering Effect on the Pattern and kinetics of degradation of Obinutuzumab using Orthogonal Testing Protocol" Eman M. Moenes, Medhat A. Al-Ghobashy, Marianne N. Morcos, Miriam F. Ayad, and **Yossra A. Trabik**, Poster presentation session at **Biologics and Biosimilars "symposium" Faculty of Pharmacy**, New Giza University, 2020.
- "Development and validation of RP-HPLC method for simultaneous determination of rosuvastatin and losartan in presence of metformin in urine" **Yossra A. Trabik**, Lobna Abd El Aziz and Amira M. El-Kosasy, Poster presentation session at the **2nd international conference of Faculty of Pharmacy**, Ain Shams University, 2018.
- "Determination of sodium fluoride in dental mouth wash and oral multivitamin formula using RP-HPLC precolumn derivatization reaction" Amira Mabrouk El-Kosasy, Lobna Abd El Aziz, and **Yossra A. Trabik**, **International Journal of Research in Science**, vol 2(1), 2016.
- "Comparative study of normal, micro- & nano-sized iron oxide effect in potentiometric determination of fluconazole in biological fluids" Lobna A. Hussein, Amira M. El-Kosasy and **Yossra A. Trabik**, **RSC Adv.**, 5, 37957–37963, 2015. DOI: 10.1039/c5ra05245a.
- "Comparative Study of Beta- Cyclodextrin and Calix-8-arene As Ionophores In Potentiometric Ion Selective Electrodes For Sitagliptin Phosphate" Amira Mabrouk El-Kosasy, Lobna Abd El Aziz, and **Yossra A. Trabik**, **Journal of Applied Pharmaceutical Science** 02 (08); 51-56,

Projects and Fellowships

- Team member of the research project entitled “Green nanotechnology approaches in water purification: evaluation of the effectiveness of functionalized carbon dots in detection and removal of antibiotic residues in water sources” funded by the sector of community affairs and environment development, 2018-2020, Ain Shams University.
- Postdoctoral scholar of Chemistry, Chemistry and Biochemistry Department, University of Maryland, College Park (2022-2023).

Scientific Activities

1. Reviewer for national and international Journals

- Talanta Open
- Analytical and Bioanalytical Chemistry
- AOAC International
- Luminescence
- Electrochemical Society
- Journal of Fluorescence
- Universal Journal of Pharmaceutical Research
- Archives of Pharmaceutical Sciences, Ain Shams University

2. Scientific conferences

- Attending and participating as a member of the event planning committee for the 3rd International Conference of the Faculty of Pharmacy, Ain Shams University, Al Masa Hotel, held on November 19th – 20th, 2023.
- Attendance and Poster presentation at "Biologics and Biosimilars Symposium, New Giza University (NGU)" held on 9-12th March 2020.
- Attending and participating as a member of the scientific writing committee, 21st Scientific Congress of The Association of Colleges of Pharmacy in The Arab World, hosted and organized by the Faculty of Pharmacy, Ain Shams University, as its second international conference and entitled “Future Trends In The Development Of Pharmaceutical Education And Research”, November 13th – 15th, 2018.
- Attending the 1st Nanotechnology International Conference held on 10-13th December 2018.
- Attendance and paper presentation at “International Conference on Management, Engineering, Science & Technology (ICMEST 2016)” held in Hyatt Place Hotel, Dubai, UAE during 27th & 28th January 2016.

3. Training Courses and Workshops

- Workshops in Analytical Chemistry Specialty
- Bridging Research and Real-world Practicality: Assessing Analytical Method Applicability with New Metrics.
- Electron Microscopy (EM) and Image Processing and Analysis Using ImageJ.
- Maximizing Insights, Minimizing Experiments: Optimizing Analytical Workflow through Experimental Design.
- Microfabrication Electrochemical Perspective
- Analytical Biotechnology: Quality of Biopharmaceuticals
- HPLC and LC-MS Workflows to Characterize Covid Therapeutics and Vaccine Development-Eur
- LC-MS: Basics and Applications

- Tailored Nanomaterials for Analytical Applications: Where Structure Meets Function
- Characterization of Optical Layers Using UV-Vis/ NIR Spectroscopy
 - Research Writing Mastery: Tips for Crafting a Publishable Paper, at Faculty of Pharmacy, Ain Shams University, November 17th, 2024.
 - Writing a successful research grant proposal workshop, at the Military Medical Academy, 20th - 21st February 2017.
 - Completing Introduction to Patents workshop, Clarivate Analytics, 26th September 2018.
 - Completing Proposal Writing for Post Docs workshop, DAAD Cairo Academy, 11th June 2019.
 - A training program on building and managing question banks (Item Bank), held online on May 26-28, 2021
 - Completing Qorrect assessment workshop, 4th August 2021.
 - Completing Envoys Training Program for Foreign Missions, 7-15 November 2021.

Membership in Professional Associations

- General Syndicate of Pharmacists
- Cairo Pharmacists Syndicate
- Egyptian Pharmaceutical Association