Salma A. Al-Tamimi

NAME Salma Ali Al-Tamimi

NATIONALITY Saudi

CURRENT POSITION

Professor in the Department of Chemistry, College of Science,

King Saud University, Saudi Arabia.

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EDUCATION

1. Ph.D. in Analytical Chemistry."Flow-Injection Chemiluminescence Determination of Some Important Pharmaceutical Compounds in Pharmaceutical Preparations and Biological Fluids". King Saud University, KSA. 2002.

2. M.Sc. in Analytical Chemistry. "Manual and Automated Spectrophotometric Determinations of Some β-Lactams Antibiotis". King Saud University, KSA. 1994.

3. B.S. in Science. Excellent with Degree of Honor. King Saud University, KSA. 1990.

POSITIONS

1. Professor of Analytical Chemistry in the Department of Chemistry, College of Science, King Saud University, KSA. February 2023- date.
2. Associate Professor in the Department of Chemistry, College of Science, King Saud University, KSA. October 2013- February 2023.
3. Assistant Professor in the Department of Chemistry, College of Science, King Saud University, KSA. March 2003- October 2013.
4. Lecturer in the Department of Chemistry, College of Science, King Saud University, KSA. July 1994 – March 2003.
5. Demonstrator in the Department of Chemistry, College of Science, King Saud University, KSA. August 1993 – July 1994.

ADMINISTRATIVE ASSINGMENT

1. Vice Chairman, Chemistry Department, College of Science, King Saud University, Riyadh, KSA. May 2010 – April 2012.

MAJOR RESEARCH/TECHNOLOGY TOPICS OF INTEREST

1. Chemiluminescence and Fluorescence Methods with Flow Injection Analysis for Determination of Pharmaceutical Compounds in Their Dosage Forms and Biological Fluids.
2. Instrumental Analysis by Electrochemistry & Spectroscopy Methods.
3. Analytical Methods Development.

LIST OF PUBLICATIONS

1. Alwarthan, Abdulrahman A., Metwally, Fadia H., and **Al-Tamimi, Salma A.** "Spectrophotometric assay of certain cephalosporins based on formation of ethylene blue." *Analytical letters* 26, no. 12 (1993): 2619-2635.

2. Alwarthan, Abdulrahman A., Metwally, Fadia H., and **Al-Tamimi, Salma A.** "Spectrophotmetric determination of cefotaxime and cefadroxil by alkaline degradation to hydrogen sulfide." *Arab Gulf Journal of Scientific Research* 13, no. 2 (1995): 213-224.

3. Metwally, Fadia H., Alwarthan, Abdulrahman A., and **Al-Tamimi, Salma A.** "Flow-injection spectrophotometric determination of certain cephalosporins based on the formation of dyes." *Il Farmaco* 56, no. 8 (2001): 601-607.

4. Aly, Fatma A., **Al-Tamimi, Salma A.,** and Alwarthan, Abdulrahman A. "Determination of phenolic sympathomimetic drugs in pharmaceutical samples and biological fluids by flow-injection chemiluminescence." *Journal of AOAC International* 83, no. 6 (2000): 1299-1305.

5. Aly, Fatma A., **Al-Tamimi, Salma A.,** Alwarthan, Abdulrahman A. "Determination of flufenamic acid and mefenamic acid in pharmaceutical preparations and biological fluids using flow injection analysis with tris (2, 2′-bipyridyl) ruthenium (II) chemiluminescence detection." *Analytica chimica acta* 416, no. 1 (2000): 87-96.

6. Aly, Fatma A., **Al-Tamimi, Salma A.,** and Alwarthan, Abdulrahman A. "Chemiluminescence determination of some fluoroquinolone derivatives in pharmaceutical formulations and biological fluids using [Ru (bipy) 32+]–Ce (IV) system." *Talanta* 53, no. 4 (2001): 885-893.

7. Aly, Fatma A., **Al-Tamimi, Salma A.,** and Alwarthan, Abdulrahman A. "Flow-injection chemiluminometric determination of some thioxanthene derivatives in pharmaceutical formulations and biological fluids using the [Ru (dipy) 32+]-Ce (IV) system." *Analytical sciences* 17, no. 11 (2001): 1257-1261.

8. **Al-Tamimi, Salma A.** "Biogenic green synthesis of metal oxide nanoparticles using oat biomass for ultrasensitive modified polymeric sensors." *Green Chemistry Letters and Reviews* 14, no. 2 (2021): 166-179.

9. **Al-Tamimi, Salma A.** "Prospective of modified polymeric MgO/ZnO nanocomposite sensor for potentiometric determination of chronic myelogenous leukemia medication." *Sensors and Actuators A: Physical* 331 (2021): 112949.

10. **Al-Tamimi, Salma A.**, Al-Mohaimeed, Amal M., Alarfaj,Nawal A., and Aly, Fatma A. "Electrochemical Determination of Gemifloxacin Mesylate in Commercial Tablets and Biological Fluids By Differential Pulse Polarography." *International Journal of Electrochemical Science* 15 (2020): 8386-8396.

11. Alarfaj, Nawal A., **Al-Tamimi, Salma A.**, El-Tohamy, Maha F., and AL-Suqayhi, Fatimah M. "Electrochemical Sensors for Berberine Hydrochloride Determination in Commercial Products and Bio-Fluids." *International Journal of Electrochemical Science* 16, no. 3 (2021). doi: 10.20964/2021.03.76

12. **Al-Tamimi, Salma A.**, Shebib, Abeer Z., and Aly, Fatma A. "Development of Different Spectrophotometric Techniques for Gemifloxacin Mesylate and Cefditoren

Pivoxil Quantification in Buk and Commercial Formulations." *World Journal of Pharmaceutical and Medical Research* 7(4) (2021): 219-227.

13. Alarfaj, Nawal A., **Al-Tamimi, Salma A.**, El-Tohamy, Maha F., and Almahri, Albandary M. "Enhanced SIA-chemiluminescence probes for angiotensin II receptor antagonist detection using silver and gold nanoparticles: applications in pharmaceutical formulations." *New Journal of Chemistry* 42, no. 5 (2018): 3383-3393.

14. Alarfaj, Nawal A., **Al-Tamimi, Salma A.**, El-Tohamy, Maha F., and Almahri, Albandary M. "Exploitation of localized surface plasmon resonance of silver/gold nanoparticles for the fluorescence quantification of angiotensin II receptor antagonists in their tablets and bio-samples." *New Journal of Chemistry* 43, no. 1 (2019): 492-503.

15. Alharthi, Sharifah G., Osman, Ayman A., **Al-Tamimi, Salma A.**, and Aly, Fatma A. "Fluorometric Method for the Determination of Gemifloxacin Mesylate in Bulk and Pharmaceutical Formulations Using Tb^{3+} Ions in the Presence of Hexamine." *Science Journal of Analytical Chemistry* 5, no. 1 (2017): 1-7.

16. **Al-Tamimi, Salma A.**, Alarfaj, Nawal A., and Turkistani, Alaa A. "New Polymeric Potentiometric Coated Wire Sensors for Determination of Montelukast Sodium in Commercial Products." *International Journal of Electrochemical Science* 16, no. 6 (2021). doi: 10.20964/2021.06.43

17. Alarfaj, Nawal A., **Al-Tamimi, Salma A.**, El-Tohamy, Maha F., and Al-dughmi, Maha S. "Prospects for using a new sequential chemiluminescence strategy for monitoring the caffeine content in soft and energy drinks via the catalytic activities of different nano-metal oxides." *Luminescence* 34, no. 2 (2019): 222-233.

18. Mekhamer, Waffa, and **Al-Tamimi, Salma A.** "Removal of ciprofloxacin from simulated wastewater by pomegranate peels." *Environmental Science and Pollution Research* 26, no. 3 (2019): 2297-2304.

19. **Al-Tamimi, Salma A.,** Al-Mohaimeed, Amal M., Alarfaj, Nawal A., and Aly, Fatma A. "Ultrasensitive Electrochemical Approach for Gemifloxacin Mesylate Monitoring and Quantification by Different Voltammetric Methods." *International Journal of Electrochemical Science* 15 (2020): 1930-1941.

20. **Al-Tamimi, Salma A.,** Motlaq, Norah S., and Aly, Fatma A. "Utility of spectroscopic studies for quantification of cefditoren pivoxil in commercial samples." *Journal of the Chemical Society of Pakistan* 43, no. 4 (2021): 417-427.

21. **Al-Tamimi, Salma A.,** "Biogenic green synthesis of metal oxide nanoparticles using oat biomass for ultrasensitive modified polymeric sensors." *Green Chemistry Letters and Reviews* 14, no. 2 (2021): 165-178.

22. **Al-Tamimi, Salma A.,** Alarfaj, Nawal A., Turkistani, Alaa A. " New Polymeric Potentiometric Coated Wire Sensors for Determination of Montelukast Sodium in Commercial Products." *International Journal of Electrochemical Science* 16, no. 6 (2021): 210634.

23. **Al-Tamimi, Salma A.,** " Prospective of modified polymeric MgO/ZnO nanocomposite sensor for potentiometric determination of chronic myelogenous leukemia medication." *Sensors and Actuators A-physicalL*331, (2021): 112949.

24. **Al-Tamimi, Salma A.,** Al-Mohaimeed, Amal M., Alarfaj, Nawal A., and Aly, Fatma A " Micellar Enhanced Spectrofluorimetric Quantification of Gemifloxacin Mesylate in Pharmaceuticals and Bio-fluids." *Indian Journal of Pharmaceutical Education and Research* 56, no. 1 (2022): S1-S8.

25. Alshehri, Eman M., Alarfaj, Nawal A., **Al-Tamimi, Salma A.,** El-Tohamy, Maha F., " Ultrasensitive Functionalized Polymeric-Nanometal Oxide Sensors for Potentiometric Determination of Ranitidine Hydrochloride." *Polymers* 14, no. 19 (2022): 4150.
26. Alshehri, Eman M., Alarfaj, Nawal A., **Al-Tamimi, Salma A.,** El-Tohamy, Maha F., " Electroanalytical sensors-based biogenic synthesized metal oxide nanoparticles for potentiometric assay of pantoprazole sodium." *Green Chemistry Letters and Reviews* 16, no. 1 (2023): 2240837.

27. Al-Humud, Najla S., **Al-Tamimi, Salma A.,** Al-Mohaimeed, Amal M., and El-Tohamy, Maha F., " Comparative Study for Spectrofluorimetric Determination of Ambroxol Hydrochloride Using Aluminum Metal Transfer Chelation Complex and Biogenic Synthesis of Aluminum Oxide Nanoparticles Using Lavandula spica Flowers Extract." *Molecules* 28, no. 5 (2023): 2210.

28. Al-Sabbah , Rana A., **Al-Tamimi, Salma A.,** Alarfaj, Nawal A., El-Tohamy, Maha F., " Modified millet extract-mediated NiO/CaO Nanocomposite potentiometric sensor for monitoring of ciprofloxacin in commercial products." *International Journal of Electrochemical Science* 18, no. 9 (2023): 100284.

29. Alarfaj, Nawal A., Alshehri, Eman M., **Al-Tamimi, Salma A.,** El-Tohamy, Maha F., " Plant extract mediated synthesis of ZnO and CeO_2 nanoparticles for spectrofluorometric assay of omeprazole and domperidone in pharmaceuticals." *Heliyon*10, no. 4 (2024): e26164.

30. Al-Sabbah , Rana A., **Al-Tamimi, Salma A.,** Alarfaj, Nawal A., El-Tohamy, Maha F., " Functionalized fennel extract-mediated alumina/cerium oxide nanocomposite potentiometric sensor for the determination of diclofenac sodium medication " *Heliyon* 10, no. 11 (2024): e31425.

31. Aldakhil, Fatemah, Alarfaj, Nawal A., **Al-Tamimi, Salma A.,** El-Tohamy, Maha F., " Hydrothermal synthesis of modified lignin-based carbon dots derived from biomass waste for fluorescence determination of valsartan." *RSC Advances*14, no. 28 (2024): 19969-19982.

32. Aldakhil, Fatemah, Alarfaj, Nawal A., **Al-Tamimi, Salma A.,** El-Tohamy, Maha F., " Development of silver-doped carbon dots sensor derived from lignin for dual-mode fluorometric and spectrophotometric determination of valsartan in a bulk powder and a commercial product." *Heliyon*10, no. 23 (2024): e40848.

33. Aldakhil, Fatemah, Alarfaj, Nawal A., **Al-Tamimi, Salma A.,** El-Tohamy, Maha F., " A Dual-Mode Spectrophotometric and Fluorescent Probe Based on Lignin-Derived Carbon Dots for the Detection of Atorvastatin Calcium in a Bulk Powder and a Commercial Product." *Journal of Fluorescence* 35, no.5 (2025): 3481-3494.