CURRICULUM VITAE

Personal Information:

Last Name: Mokhtari First Name: Ali

Title: Associate Professor of Analytical Chemistry

Address: Department of Chemistry, Golestan University, Gorgan, Golestan, Iran

Date of Birth: September 16, 1979

Marital Status: Married

Email: a.mokhtari@gu.ac.ir, alimo58@yahoo.com

Highlights:

- Member of the Academic Staff at Golestan University, Gorgan, Iran (Since 2010)
- ➤ The head of the Department of Chemical Engineering (2011-2017).
- Faculty vice-president for research and academic Affairs, Faculty of Engineering, Golestan University (2017-2018).
- Registered six approved technologies in Iran Tech Hub (Iran Technology Evaluation Hub):
 - Seawater Battery (TRL 5)
 - Three-Channel Sampling Valve (TRL 4)
 - Chemiluminescence Instrument (TRL 6)
 - Syringe Pump (TRL 5)
 - Bipolar-Electrochemiluminescence Instrument (TRL 5)
 - Sono-Chemiluminescence Instrument (TRL 7)
- ➤ Teaching the following courses (Since 2010):
 - Instrumental Analysis
 - Electrochemistry
 - Analytical Chemistry (Classic)
 - General Chemistry
 - Instrumental Identification of Polymers
 - Real Sample Analysis
 - Analytical spectroscopy 1 (MSc)
 - Electroanalytical Chemistry (MSc)

Education:

Ph.D. Analytical Chemistry, GPA: 18.07/20,

Thesis on: Quantification of Some Drugs Using Chemiluminescence Methods Isfahan University of Technology, Isfahan, Iran, Graduated November 2008

M.S. Analytical Chemistry, GPA: 16.73/20,

Thesis on: Design and Construction of Chemiluminescence Apparatus and Determination of Codeine Using Chemiluminescence Method.

Isfahan University of Technology, Isfahan, Iran, Graduated September 2004

B.S. Pure Chemistry, GPA: 15.70/20,

University of Guilan, Rasht, Iran, Graduated February 2002 (Rank: 1/30)



Supplementary Information:

Academic Awards and Achievements:

- Received the special jury award for the University of Guilan's first music festival (2002)
- Received the best teacher honours at the School of Engineering, Golestan University (the national teacher's appreciation day, 2011 and 2014)
- Recognized as a distinguished researcher at the School of Engineering, Golestan University, 2012, 2013, and 2014.
- Recognized as a distinguished researcher at Golestan University in 2017 (among 120 academic members)
- Recognized as a distinguished researcher at the School of Sciences, Golestan University, 2017 (among 63 academic members).
- Recognized as the top educational leader of Golestan University (the national teacher's appreciation day, 2023, among 172 academic members)
- Received more than ten inter-college futsal and volleyball games championship Trophy (Isfahan University of Technology and Golestan University)
- Advised and supervised the Golestan University team, recognized as the best third team, in the National Fuel Cell Machines Competitions, Khajeh Nasir University, Tehran, Iran, 2012.
- Supervised the Golestan University team in the National Chem-e-Car competitions 2012 (8th /75), 2013 (6th/63), 2014 (6th/53), 2016 (2nd/33), 2018 (2nd/36), 2020 (4th/32)
- Ranked first among 30 B.S. students at the Department of Chemistry, University of Guilan (2002)
- Member of Iran's National Elites Foundation.

Work Experience

- Faculty member of Azad University, Azadshahr Branch, October 2003-March 2005.
- > Establishing the first laboratory of textile fabric identification at Azad University, Azadshahr branch.
- Establishing the first laboratory for identifying minerals, Azad University, Azadshahr branch.
- ➤ Participating in the project for optimizing the conditions for solvent extraction of furfural from sugarcane bagasse on a semi-industrial scale, Isfahan University of Technology, Isfahan, Iran, November 2004-March 2004, Advisors: Dr Taherzadeh, Dr Karimi.
- Faculty member at Golestan University since November 2010.
- ➤ The chair of the chemical engineering department and the advisor of the student council of chemical engineering, Golestan University, Iran, (2011-2016).
- The advisor of the Chemistry student council, Golestan University, Iran, 2016-2017).
- ➤ Established two specialized laboratories (Unit operation and process control) and four basic laboratories (General chemistry, Organic chemistry, Analytical chemistry, and Physical chemistry) for the Department of chemical engineering at the Faculty of Engineering, Aliabad, Golestan University, Iran
- > Established the electrochemical chemistry lab at the faculty of science, Golestan University, Iran
- ➤ The representative of Golestan University prepared the contracts for purchasing 32 devices from 21 different companies, represented at the Nationally Manufactured Equipment Exhibition of 2013, delivering and launching the devices.
- Faculty vice-president of Research and academic affairs, department of Engineering, Golestan University (2017-2018).
- > Supervision of 15 graduated master's students and 19 Bachelor projects.
- ➤ 11 completed Research projects.
- Experimental works on Metal/Air Fuel Cells and Seawater Batteries (North Science and Technology Research Institute, 2009-2011 and Golestan University, 2018).
- ➤ Feasibility study of Methanol Reformer as a Hydrogen Source for Fuel Cells (Military service benefits of Iran's National Elites Foundation, 2010).
- Visiting researcher in Isfahan University of Technology, Photoelectrochemical catalysts (25-7-2018 to 6-9-2018).

Publications:

a. Journals

- 1. Z Akbarzadeh, <u>A Mokhtari</u>, G Bahlakeh, H Karimian, Pulsed-sonochemiluminescence combined with molecularly imprinted polymerized high internal phase emulsion adsorbent for determination of bentazone, Microchimica Acta, 2022, 189 (8), 1-13.
- 2. M Meskari, <u>A Mokhtari</u>, Determination of Remifentanil in Pharmaceuticals Using Chemiluminescence System of Ru (phen) 32+-Ce (IV), Analytical and Bioanalytical Chemistry Research, 2022, 9 (2), 173-181.
- A Mokhtari, M Barati, H Karimian, M Keyvanfard A molecularly imprinted polymerized high internal phase emulsion adsorbent for sensitive chemiluminescence determination of clopidogrel, Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, 2022, 265, 120371.
- M Ahmadi, <u>A Mokhtari</u>, G Bahlakeh, H Karimian, Flow Injection Chemiluminescence Determination of Ethion and Computational Investigation of the Adsorption Process on Molecularly Imprinted Polymerized High Internal Phase Emulsion, Luminescence, 2022, 37(9), 1514-1523.
- 5. K Esfandiari, M Banihashemi, <u>A Mokhtari</u>, P Soleimani, Experimental investigation of influencing parameters on natural gas odor fading in gas distribution networks, Journal of Natural Gas Science and Engineering, 2022, 95, 104191.
- 6. Arefeh Khalili, Aliakbar Dehno Khalaji, <u>Ali Mokhtari</u>, Mohsen Keyvanfard Synthesis, Characterization, and Methyl Green Removal of Epichlorohydrin Crosslinked Schiff Base Chitosan/Fe2O3 Nanocomposite, Progress in Chemical and Biochemical Research, 2021, 4 (4), 370-380.
- 7. M Sanati, AD Khalaji, <u>A Mokhtari</u>, M Keyvanfard, Fast removal of methyl green from aqueous solution by adsorption onto new modified chitosan Schiff base, Progress in Chemical and Biochemical Research, 2021, 4 (3), 319-330.
- 8. F Soleimangoli, SA Hosseini, A Davoodi, <u>A Mokhtari</u>, M Alishahi, Effect of NH4Cl on the microstructure, wettability and corrosion behavior of electrodeposited NiZn coatings with hierarchical nano/microstructure, Surface and Coatings Technology, Volume 394, 25 July 2020, 125825.
- Ali Mokhtari, Mohsen Keyvanfard, Hossein Karimian, Maryam Ahmadi, Alireza Aarabi, Sedigheh Faramarzi Palangar, Mozhdeh Barati, Ahmad Ghaffari, Ali Mahmoodi Sefidkoohi, Massoud Karimi, Synergistic effect of Chromotrope 2R as a novel sensitizer for chemiluminescence reactions of potassium permanganate: Determination of naproxen and naltrexone, Dyes and Pigments, Volume 178, July 2020, 108371.
- 10. J Niazi Saei, <u>A Mokhtari</u>, H Karimian, Stopped-flow chemiluminescence determination of the anticancer drug capecitabine: Application in pharmaceutical analysis and drug-delivery systems, Luminescence, 2020 Aug;35(5):797-804.
- 11. M Koohsarian, <u>A Mokhtari</u>, Direct Chemiluminescence Determination of Oxymorphone Using Potassium Permanganate and Polyphosphoric Acid, *Analytical And Bioanalytical Chemistry Research* 4 (2017), 127-139.
- 12. N. Jafari Delouei, <u>A. Mokhtari</u>, M.R. Jamali, Determination of pholocodine in syrups and human plasma using the chemiluminescence system of tris(1,10 phenanthroline) ruthenium(II) and acidic Ce(IV), *Luminescence* 32 (2017), 387–393.
- 13. <u>A Mokhtari</u>, M Aaghamohammadhasan, Chemiluminescence System of Permanganate-Sulfite for Simple Determination of Zolpidem, *Eurasian Journal of Analytical Chemistry* 12 (2016), 61-74.
- 14. <u>A. Mokhtari</u>, Chemiluminescence Determination of Local Anaesthetic Mepivacaine in Human Plasma and Pharmaceuticals, Acta Chimica Slovenica, Accepted, *Acta Chimica Slovenica* 63 (2016), 920-928.
- 15. <u>A. Mokhtari</u>, M. Benam , M. Keyvanfard, M. Ghazaeian, Chemiluminescence Determination of Hydroxyzine and its Metabolite Cetirizine, *Analytical and Bioanalytical Chemistry Research*, 3 (2016), 265-278.
- 16. M. Koohsarian, A. Mokhtari, S. Hooshmand, J. Niazi, M. Keyvanfard, M. Yavari, A. Kiaalvandi, Determination of naltrexone based on its enhancement effect in the chemiluminescence reaction of Ru (phen)32+ with acidic cerium(IV), Journal of Chemical and Pharmaceutical Research, 8 (2016) 1066-1073.
- 17. <u>A. Mokhtari</u>, A. Goudarzi, M. Benam, S. Mehdizadeh Langroodi, Fabrication and characterization of Cu(OH)₂/CuO nanowires as a novel sensitivity enhancer of the luminol–H₂O₂ chemiluminescence system: determination of cysteine in human plasma, *RSC Advances* 6 (2016) 5320-5329.
- 18. <u>A Mokhtari</u>, N Jafari Delouei, M Keyvanfard, M Abdolhosseini, Multiway analysis applied to time resolved chemiluminescence for simultaneous determination of paracetamol and codeine in pharmaceuticals, *Luminescence*, 31(2016)1267-76.
- 19. <u>A Mokhtari</u>, M Keyvanfard, I Emami, NJ Delouei, HF Pishkhani, Determination of Aspirin Using Chemiluminescence System of Tris (1, 10 phenanthroline) Ruthenium (II)-Cerium (IV), *Journal of the Brazilian Chemical Society* 27 (2016), 566-574.
- 20. <u>A Mokhtari</u>, M Keyvanfard, I Emami, Chemiluminescence Determination of Carminic Acid in Foodstuffs and Human Plasma Using Ru (phen)₃²⁺Acidic Ce (IV) System, *Food Analytical Methods* 8 (2015) 2457-2464.
- 21. <u>Mokhtari</u>, M Ghazaeian, M Maghsoudi, M Keyvanfard, I Emami, Simple chemiluminescence determination of ketotifen using tris (1, 10 phenanthroline) ruthenium (II)-Ce (IV) system, A *Luminescence* 30 (2015) 1094-1100.
- 22. <u>A Mokhtari</u>, M Keyvanfard, I Emami, Simultaneous chemiluminescence determination of citric acid and oxalic acid using multiway partial least squares regression, *RSC Advances* 5 (2015) 29214-29221.
- 23. A Mokhtari, Sensitive determination of aripiprazole using chemiluminescence reaction of tris (1, 10-phenanthroline) ruthenium (II)

- with acidic Ce (IV), Analytical Methods 6 (2014) 9588-9595.
- 24. <u>Ali Mokhtari</u>, Ahmad Ali Rabie Nataj, Design, construction and optimization of aluminium-oxygen fuel cell for use in unmanned subsurface vessels, Iranian Chemical Engineering Journal, Year 12, Number 66 (2014) 84-94 (in Persian).
- 25. <u>A. Mokhtari</u>, Chemiluminescence determination of primidone in pharmaceuticals and human fluids, *Analytical Methods*, 4 (2012) 558-56.
- 26. <u>Ali Mokhtari</u>, Hassan Karimi-Maleh, Ali A. Ensafi, Hadi Beitollahi, Application of modified multiwall carbon nanotubes paste electrode for simultaneous voltammetric determination of morphine and diclofenac in biological and pharmaceutical samples, *Sensors and Actuators B: Chemical* 169(2012)96-105.
- 27. Karimi-Maleh, M. Keyvanfard, K. Alizad, M. Fouladgar, H. Beitollahi, <u>A. Mokhtari</u> and F. Gholami-Orimi, Voltammetric Determination of N-Actylcysteine Using Modified Multiwall Carbon Nanotubes Paste Electrode, *Int. J. Electrochem. Sci.*, 6 (2011) 6141-6150.
- 28. Mohsen Keyvanfard, Ali Mokhtari, Iraj Emami, Simple Chemiluminescence Determination of Pilocarpine in Pharmaceuticals and Human Serum, *Acta Chimica Slovenica*, 58 (2011) 563-568.
- 29. <u>A. Mokhtari</u>, B. Rezaei, Chemiluminescence Determination of Chlorpromazine and Fluphenazine in Pharmaceuticals Preparations and Human Serum Using tris(1,10-phenanthroline)ruthenium(II) and a Chemometrical Optimization Approach, *Anal. Methods* 3 (2011) 996-1002.
- 30. B. Rezaei, <u>A. Mokhtari</u>, Sensitive Determination of Perphenazine in Pharmaceuticals and Human Serum by Flow Injection Chemiluminescence Method Using Ru(phen)₃²⁺-Ce(IV) System and a Chemometrical Optimization Approach, *J. Braz. Chem. Soc.* 22 (2011) 49-57.
- 31. Ali A. Ensafi, F. Hasanpour, T. Khayamian, <u>A. Mokhtari</u>, M. Taei, Simultaneous Determination of Tebaine and Noscapine Using Support Vector Machine Regression, *Spectrochim. Acta A* 75 (2010) 867-871.
- 32. B. Rezaei, T. Khayamian, <u>A. Mokhtari</u>, Simultaneous Determination of Codeine and Noscapine by Chemiluminescence Method Using *N*-PLS Regression, *J. Pharm. Biomed. Anal.* 49 (2009) 234-239.
- 33. B. Rezaei, A. Mokhtari, Chemiluminescence Determination of Promazine in Human Serum and Drug Formulations Using Ru(phen)₃²⁺-Ce(IV) System and a Chemometrical Optimization Approach, *Luminescence* 24 (2009) 183-188.
- 34. B. Rezaei, <u>A. Mokhtari</u>, Flow Injection Chemiluminescence Determination of Enrofloxacin Using Ru(phen)₃²⁺-Ce(IV) System and Central Composite Design for the Optimization of Chemical Variables, *Luminescence* 23 (2008) 357-364.
- 35. B. Rezaei, <u>A. Mokhtari</u>, T. Khayamian, A Simple and Rapid Flow Injection Chemiluminescence Method for the Determination of Noscapine with Ru(phen)₃²⁺-Ce(IV) system, *Annali di Chimica* 97 (2007) 605-614.
- B. Rezaei, <u>A. Mokhtari</u>, A Simple and Rapid Flow Injection Chemiluminescence Determination of Cysteine with Ru(phen)₃²⁺-Ce(IV) system, *Spectrochim. Acta A* 66 (2007) 359-363.

b. Conferences

- 1- M. Shahkumahali, <u>A. Mokhtari</u>, H. Karimian, Sonochemiluminescence Determination of Buprenorphine in Tablet Samples, 6th Iranian Applied Chemistry Conference, Malayer University, 2022, Malayer.
- 2- M. Shahkumahali, <u>A. Mokhtari</u>, H. Karimian, Determination of morphine sulfate concentration in pharmaceutical samples using Sonochemiluminescence method, 6th Iranian Applied Chemistry Conference, Malayer University, 2022, Malayer.
- 3- Razieh Gogjeli, <u>Ali Mokhtari</u>, production of technical knowledge for the construction of an aluminium battery, 1st Academic Seminar of Chemistry and Clean Energy, University of Sistan and Baluchestan, Zahedan, Iran, 2022
- 4- M. Meskari, <u>A. Mokhtari</u>, M. Keyvanfard, Chemiluminescence determination of remifentanil, 4th Applied Chemical Science and Technology Conferences: Sensors and Biosensors, 2020, Shiraz.
- 5- M. Seyedkhademi, H. Karimian, <u>A. Mokhtari</u>, Gh. Bahlakeh, Synthesis of porous molecularly imprinted polymerized high internal phase emulsions (MIP-PolyHIPEs) for identification of chemical compounds, 11th International Chemical Engineering Congress & Exhibition, 2020, Fooman, Iran.
- 6- Zohre Akbarzade, <u>Ali Mokhtari</u>, Ghaseb Bahlakeh, Hossein Karimian, Sonochemiluminescence as a novel analytical method for determining some pesticides in the water samples. 1st International Conference and the 4th National Conference on Conservation of Natural Resources and Environment, August 2019, University of Mohaghegh Ardabili, Ardabil, Iran 2019.
- 7- Maryam Ahmadi, <u>Ali Mokhtari</u>, Alireza Aarabi, Sedigheh Faramarzi Palangar, Hossein Karimian, Novel chemiluminescence method for monitoring glyphosate herbicide in environmental waters, 1st International Conference and the 4th National Conference on Conservation of Natural Resources and Environment, August 2019, University of Mohaghegh Ardabili, Ardabil, Iran 2019.
- 8- Maryam Ahmadi, <u>Ali Mokhtari</u>, Ghaseb Bahlakeh, Hossein Karimian, Molecularly imprinted poly-HIPE polymers for removal of ethion insecticide from water samples, 1st International Conference and the 4th National Conference on

- Conservation of Natural Resources and Environment, August 2019, University of Mohaghegh Ardabili, Ardabil, Iran 2019.
- 9- Maryam Ahmadi, <u>Ali Mokhtari</u>, Ghaseb Bahlakeh, Hossein Karimian, A chemiluminescence method for monitoring ethion insecticide in environmental waters, 1st International Conference and the 4th National Conference on Conservation of Natural Resources and Environment, August 2019, University of Mohaghegh Ardabili, Ardabil, Iran 2019.
- 10-Mozhdeh Barati, <u>Ali Mokhtari</u>, Massoud Karimi, A Novel and Simple Chemiluminescence Method for Rapid Determination Of Haloperidol, 5th International Conference on Applied Research in Chemistry and Chemical Engineering focusing on local technologies, Tehran University, 2018.
- 11-Mozhdeh Barati, <u>Ali Mokhtari</u>, Massoud Karimi, A validated and Novel Chemiluminescence method for Rapid Determination of Clopidogrel, 5th International Conference on Applied Research in Chemistry and Chemical Engineering focusing on local technologies, Tehran University, 2018.
- 12-Massoud Karimi, <u>Ali Mokhtari</u>, Mozhdeh Barati, Rhodamine 6G-Acidic Ce (IV) Chemiluminescence system as A Simple Method for the Determination of Thebaine, 5th International Conference on Applied Research in Chemistry and Chemical Engineering focusing on local technologies, Tehran University, 2018.
- 13-Jalal Niazi Saei, <u>Ali Mokhtari</u>, Hossein Karimianm Acidic Potassium Permanganate As a Chemiluminescence Reagent for Direct Determination of Capecitabine, First International Conference on Modern Technologies in Science, Amol University of Special Modern Technologies, Amol, 2017
- 14-Jalal Niazi Saei, <u>Ali Mokhtari</u>, M. Mottaghi Nasab, A. Makhtoomi, M. Keyvanfard, A Simple Chemiluminescence Method for Direct Determination of Biperiden in Pharmaceuticals, First International Conference on Modern Technologies in Sciences (2017)
- 15-Jalal Niazi Saei, <u>Ali Mokhtari</u>, Acidic Potassium Permanganate As a Chemiluminescence Reagent for Direct Determination of Capecitabine, First International Conference on Modern Technologies in Sciences (2017)
- 16-M. Koohsarian, <u>A. Mokhtari</u>, S. Hooshmand, Simple chemiluminescence determination of oxymorphone based on direct oxidation by acidic potassium permanganate, 23rd Iranian Seminar of Analytical Chemistry, Sharif University of Technology, 31 August 2016.
- 17-M. Koohsarian, <u>A. Mokhtari</u>, S. Hooshmand, Chemiluminescence Determination of Diphenoxylate using Ru(phen)32+ and acidic Ce(IV) System, 23rd Iranian Seminar of Analytical Chemistry, Sharif University of Technology, 31 August 2016
- 18-Maryam Kuhsarian, <u>Ali Mokhtari</u>, Shabnam Hooshmand, Alireza Goudarzi, Simultaneous Spectrophotometric determination of cysteine and ascorbic acid using Cu(OH)2/CuO nanowires and parallel factor analysis, 5th Iranian Biennial Chemometrics Seminar, 2015
- 19-<u>Ali Mokhtari</u>, Mehrgan Ghazaeian, Mahdieh Maghsoodi, Mohsen Keyvanfard, Iraj Emami, Simple Chemiluminescence Determination of Ketotifen in Pharmaceuticals, Seminar of Applied Chemistry, Isfahan University of Technology, March 2013.
- 20-<u>Ali Mokhtari</u>, Mehrgan Ghazaeian, Mahdieh Maghsoodi, Mohsen Keyvanfard, Iraj Emami, Determination of oxalic acid and citric acid and their mixtures using chemiluminescence method, Seminar of Applied Chemistry, Isfahan University of Technology, March 2013.
- 21-<u>Ali Mokhtari</u>, Mohammad Hossein Moslemi, Abdolmanan Sensebli, Saeid Hassanpour, The Feasibility Study of Applying Magnesium Oxygen Batteries as Long-Term Energy Supply for Underwater Equipments, International Conference of Emerging Trends in Energy Conservation ETEC 2014.
- 22-<u>Ali Mokhtari</u>, Energy Production from Fuel Cells for Underwater applications, The Third National Conference on Fuel, Energy, and Environment, the Institute of Material and Energy, Tehran, September 2013.
- 23-<u>Ali Mokhtari</u> A Comparative Study on Underwater Long-Term Energy Producing Sources, The First National Conference on Innovative Marine Technologies, Imam Khomeini University of Marine Science, Noshahr, Mazandaran, Iran, July 2013.
- 24-Morteza Okhovat, Fatemeh Eslami, <u>Ali Mokhtari</u>, Developing a Partial Least Square Model for Predicting of Exercise Effects on the Lipid and Lipoproteins Concentrations in the Blood, International Sports Science Conference, Shomal University, Amol, Iran, December 2012
- 25-<u>Ali Mokhtari</u>, Feasibility Study of Methanol Reformer As a Hydrogen Source For Fuel Cell Hybrid Vehicles, First National Conference of Energy, Vehicle and Sustainable Development, Tehran, 23 & 24 October 2011.
- 26-<u>Ali Mokhtari</u>, Alireza Amrollahi, Study of The Performance Features and The Kind of Power Supplies in Fuel Cell Hybrid Vehicles in The Last 21 Years, First National Conference of Energy, Vehicle and Sustainable Development, Tehran, 23 & 24 October 2011
- 27-Ali Mokhtari, Determination of Chlorpromazine and Fluphenazine in Pharmaceuticals and Human Serum Using

- Chemiluminescence of tris(1,10-phenanthroline)ruthenium(II), 18th Iranian Seminar of Analytical Chemistry, Zahedan, May 2011.
- 28-<u>Ali Mokhtari</u>, Determination of Primidone in Pharmaceuticals and Human Fluids Using Chemiluminescence System of Ru(phen)32+_Ce(IV), 18th Iranian Seminar of Analytical Chemistry, Zahedan, May 2011.
- 29-Mohsen Keyvanfard and <u>Ali Mokhtari</u>, Chemiluminescence Determination of Pilocarpine, 17th Iranian Seminar of Analytical Chemistry, Kashan, September 2010.
- 30-<u>Ali Mokhtari</u>, B. Rezaei, Comparative Studies of Univariate and Multivariate Optimization for Determination of Drugs By Ru(phen)3+2-Ce(IV) Chemiluminescence System, 2nd Iranian Biannual Seminar of Chemometrics, Urmia, October 2009.
- 31-<u>Ali Mokhtari</u>, B. Rezaei, Predictive Ability of Multivariate Calibration Methods for Simultaneous Quantification of Tebaine and Noscapine Using Chemiluminescence System of Ru(phen)3+2 and acidic Ce(IV), 2nd Iranian Biannual Seminar of Chemometrics, Urmia, October 2009.
- 32-<u>A. Mokhtari</u>, B. Rezaei, T. Khayamian Simultaneous Determination of Codeine and Noscapine by Chemiluminescence Reaction Using Multi-Way Regression, 1st Iranian Biannual Seminar of Chemometrics, Arak, September 2006.

Finished Projects of Masters Students

- Sahar Hosseini Paghaleh, Study of Dye Removal Using Chitosan Polyvinyl Acetate Schiff Base /Iron Oxide Nanocomposites, Golestan University, (15-2-2023).
- ➤ Pegah Eftekhar Azam, Synthesis and Characterization of Modified Chitosan with Malic Acid-Iron Oxide and Study of Dye Removal from Aqueous Solution, Golestan University, (15-2-2023).
- ➤ Kimia Rezaei, Synthesis and Characterization of Chitosan-Epichlorohydrin-Iron oxide Nanocomposites and Study of Their Dye Removal Ability from Aqueous Solutions, Golestan University, (7-12-2022).
- ➤ Maedeh Shahkoomahali, Sono-Chemiluminescence as an Analytical Tool for Determining Some Compounds, Golestan University, (26-9-2022).
- ➤ Malihe Sanati, Investigation of Dye Removal by Chitosan Schiff Base Composites from Aqueous Medium, Golestan University, (18-1-2022).
- Razie Googjeli, Acquiring Technical Knowledge of Making a Flow Battery Prototype with a Metallic Anode, Golestan University, (19-9-2021).
- Azin Rahimi, A Microfluidic Device with a Simple Optical Detector for Environmental Applications, Golestan University, (19-9-2021).
- ➤ Mobina Meskari, Determining the Amount of Remifentanil in Pharmaceuticals by a Chemiluminescence Method, Golestan University, (14-9-2021).
- Maryam Rezaei, Constructing a Bipolar-Electrochemiluminescence Detector for Pharmaceutical Analysis, Golestan University, (10-9-2020).
- ➤ Zohreh Akbarzadeh, Sono-Chemiluminescence Determination of some pesticides and Computational Investigation of Their Adsorption Characteristics on polymer absorbents, Golestan University, (4-2-2020).
- ➤ Maryam Ahmadi, Flow Injection Chemiluminescence Determination of Ethion in Water Samples Using PolyHIPE Adsorbents, Golestan University, (2-2-2020).
- ➤ Mozhdeh Barati, Determination of Clopidogrel and Haloperidol Using Chemiluminescence Method, Golestan University, (16-2-2019).
- ➤ Masoud Karimi, Investigating New Chemiluminescence Sensitizers to Determine Some Narcotic Compounds, Golestan University, (13-2-2019).
- > Maryam Koohsarian, Chemiluminescence Determination of 13 Narcotics, Golestan University, (18-2-2017)
- ➤ Nastaran Jafari Delouei, Chemiluminescence system of Ru(II)(phen)3-Ce(IV) and statistical methods for the analysis of some anti-allergic, alkaloid and analgesic Pharmaceuticals, Behshahr Payame Noor University, (24-12-2015)

Research Projects

Current projects

- ➤ Investigating the fading behaviour of the new Odorants in the gas distribution network lines (polyethylene and metallic) and ways to prevent the recurrence of this problem.
- > Making a signal generator with the required capabilities for the bipolar-electrochemiluminescence device.
- Extraction of magnesium from the effluent of the iodine production plant.
- > Design calculations of evaporation ponds for effluent treatment of the iodine production plant and bromine preconcentration.

Completed projects

- Determining bromine in the effluent of the iodine production plant and preparing the corresponding procedure.
- > Investigating the factors affecting the reduction of the smell of Spotleak odorant in gas distribution networks and ways to reduce or eliminate this problem.
- Design and construct a prototype sample of a semi-fuel cell for long-term underwater uses.
- Feasibility study of using magnesium-oxygen semi-fuel cells for underwater systems working continuously for several years.
- > Proposing a new chemiluminescence method to determine ketotifen in pharmaceutical samples.
- > Determination of isoprenaline and morphine in pharmaceuticals and urine using newly modified electrochemical sensors with carbon nanotubes.
- Designing and constructing a Chemiluminescence device for the determination of pilocarpine.
- > Study of ageing methods in high energy materials.
- ➤ Production of technical knowledge including Feasibility study, conceptual design of single cell and triple cells of aluminium-oxygen fuel cell with 24-watt power.
- Interaction of cysteine amino acid with lithium cation and optimization of its structure using the abinitio method.
- Calculation of glycine amino acid interaction with sodium and its structural optimization using the abinitio method.