

Seyedeh Maryam Sajjadi

PERSONAL INFORMATION



Born: 20 Feb. 1980, Lamerd
 Citizenship: Iranian
 Address: Faculty of Chemistry, Semnan University, Semnan,
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EDUCATION

- **Post Doc.** in Analytical Chemistry. Faculty of Chemistry, University of Tabriz, Tabriz, Iran.
 Sep. 2011 - Sep. 2012 .
 Supervisor: Dr. Karim Asadpour-Zeynali
 Proposal Title: Analysis of Electrochemical and Spectro-Electrochemical data by Multivariate methods
- **Post Doc.** in Analytical Chemistry. School of Science, University of Tehran, Tehran, Iran.
 Nov. 2010 - Sep. 2011.
 Supervisor: Dr. Farzaneh Shemirani
 Proposal Title: Resolution and quantification of two-way and three-way data with severely overlapped spectra by chemometrics methods
- **Ph.D.** in Analytical Chemistry. Faculty of Chemistry, Institute for Advanced Studies in Basic Sciences, Zanzan, Iran.
 Dec. 2004 - Jan. 2010
 Supervisor: Dr. Hamid Abdollahi
 Thesis Title: Evaluation of Three-way Data Having Degenerate Factors by Parallel Factor Analysis Modelling
- **M. Sc.** in Analytical Chemistry. Faculty of Chemistry, Institute for Advanced Studies in Basic Sciences, Zanzan, Iran.
 Sep 2002 - Dec. 2004
 Supervisor: Dr. Hamid Abdollahi
 Thesis Title: Spectrofluorimetric and Spectrophotometric Study of Acid Dissociation Equilibria in Mixtures by Chemometric Methods
- **B. Sc.** in Pure Chemistry. Chemistry Department, Yasuj University, Yasuj, Iran.
 Sep 1998 - Sep. 2002
 Research Supervisor: Dr. Mohsen Kompany-Zareh
 Research Title: Kinetic Spectrophotometric Determination of Hg (II) Using Artificial Neural Network Method

PROFESSIONAL EXPERIENCE

| <u>Period</u> | <u>Position</u> | <u>Location</u> |
|---------------|---|---|
| 2023 | Deputy of Research and Technology at Faculty of Chemistry | Faculty of Chemistry, Semnan University |
| 2022- present | Associate Professor | Faculty of Chemistry, Semnan University |
| 2012-2022 | Assistant Professor | Faculty of Chemistry, Semnan University |

TEACHING EXPERIENCE

A. Courses (2012-present)

Undergraduate Courses Title

General Chemistry
 Analytical Chemistry 1
 Instrumental Analytical Chemistry
 Fundamental of Computer and Program Writing
 Research Exercise
 Practical Training, Writing Reports and Seminars

Graduate Courses Title

Advanced Analytical Chemistry
 Statistical Analysis of Results
 Statistics and Experimental Design
 Modern Topics in Inorganic Chemistry

B. Workshops

- B8. Experimental Design (2 Sessions, Jun 20-21, **2021**)
 Semnan University
- B7. Experimental Design (6 Sessions, Jun 20-21, **2016**)
 Faculty of Mechanical Engineering, Semnan University, Semnan, Iran.
- B6. Experimental Design (4 Sessions, Feb. 29, Mar. 7, **2016**)
 Faculty of Mechanical Engineering, Semnan University, Semnan, Iran.
- B5. Hard-soft Modeling Parallel Factor Analysis (1, Nov. **2011**)
 10th Iranian Workshop on Chemometrics, Institute for Advanced Studies in Basic Sciences, Zanjan, Iran.
- B4. Simulation of Acid Titrations and Determination of their Equilibrium Constants by Excel Software (1 session, Jul. 13, **2011**)
 1st School of chemistry, Institute for Advanced Studies in Basic Sciences, Zanjan, Iran.
- B3. Chemometrics (6 sessions, Jan. 7-8, **2011**)
 Pharmaceutical science research center, University of Tehran, Iran.
- B2. Chemometrics (8 sessions, Nov. 8-9, **2010**).
 Chemistry Department, Yasuj University, Yasuj, Iran.
- B1. BLLS-PARAFAC (1 session Nov. 2, **2010**)
 Ninth Iranian Workshop on Chemometrics, Institute for Advanced Studies in Basic Sciences, Zanjan, Iran.

RESEARCH PUBLICATIONS AND PRESENTATIONS

A. Journal Publication

- A54. Setare Loh Mousavi, S Maryam Sajjadi, Predicting rejection of emerging contaminants through RO membrane filtration based on ANN-QSAR modeling approach: trends in molecular descriptors and structures towards rejections, RSC advances, **2023**; 13, 23754-23771
- A53. Fatemeh Chitgaran, S Maryam Sajjadi, Farideh Nabizadeh Chianeh, Javad Feizy, Spectrophotometric Study of Photo-electro-catalytic Degradation of 4-Nitrophenol on TiO₂-MWCNT/Ti Electrode Using Multivariate Curve Resolution-Alternating Least Squares Method, Applied Chemistry, **2023**, Accepted
- A52. M Fasihi, M Rajabi, B Barfi, SM Sajjadi, Efficacious and environmentally friendly deep eutectic solvent-based liquid-phase microextraction for speciation of Cr (III) and Cr (VI) ions in food and water samples, International Journal of Environmental Analytical Chemistry, **2022**; 102 (16): 4331-4343.

- A51. B Abdous, SM Sajjadi, A Bagheri, Determining the Aggregation Number of Anionic Surfactants based on Conductivity Method: Employing QSAR-ANN Modelling Techniques for Predicting the aggregation number of surfactants, *Applied Chemistry*, **2022**; 17 (63): 87-108.
- A50. J. Yousefi, SM Sajjadi, Predicting the Anticonvulsant Activities of Phenylacetanilides Using Quantitative-structure-activity-relationship and Artificial Neural Network Methods, *Analytical and Bioanalytical Chemistry Research*, **2022**; 4: 331-339
- A49. B Abdous, SM Sajjadi, A Bagheri, Predicting the aggregation number of cationic surfactants based on ANN-QSAR modeling approaches: understanding the impact of molecular descriptors on aggregation numbers, *RSC advances*, **2022**; 12 (52): 33666-33678.
- A48. SM Sajjadi, Z Asadollah-pour, SH Sajjadi, SN Nabavi, Investigating photocatalytic degradation of o-nitrophenol and p-nitrophenol over efficient CoO-Fe₂O₃@SiO₂@TiO₂ nanocomposite: rank annihilation factor factor analysis approach, *Chemical Papers*, **2021**; 76: 1-12.
- A47. F Mahmoudian, FN Chianeh, SM Sajjadi, Simultaneous electrochemical decolorization of Acid Red 33, Reactive Orange 7, Acid Yellow 3 and Malachite Green dyes by electrophoretically prepared Ti/nanoZnO-MWCNTs anode: Experimental Design, *Journal of Electroanalytical Chemistry*, **2021**; 884: 115066.
- A46. SM Sajjadi, Z Asadollah-pour, SH Sajjadi, SN Nabavi, Z Abed, F Farzin,. B Abdous, A thorough investigation of photo-catalytic degradation of ortho and para-nitro phenols in binary mixtures: new insights into evaluating degradation progress using chemometrics approaches, *New Journal of Chemistry*, **2021**; 45 (29): 12974-12985.
- A45. F Bataghva, SM Sajjadi, B Daraei, Simultaneous Spectrophotometric Quantification of Crystal Violet and Malachite Green in Aqueous Samples: Combination of Multivariate Calibration Method and Solid Phase Extraction Based on Sodium Dodecyl Sulfate (SDS) Grafted Chitosan Nano-composite, *Analytical and Bioanalytical Chemistry Research*, **2020**; 7 (4): 525-539.
- A44. M Fasihi, M Rajabi, B Barfi, SM Sajjadi, Deep eutectic-based vortex-assisted/ultrasound-assisted liquid-phase microextractions of chromium species, *Journal of the Iranian Chemical Society*, **2020**; 17: 1705-1713.
- A43. F. Mahmoudian, F. Nabizadeh Chianeh, SM Sajjadi, Simultaneous removal of some dyes using advanced electrochemical oxidation method: Multivariate calibration (PLS) method, *Applied Chemistry*, **2020**, 27-33.(Special Letter to the Fourth Conference on Applied Chemistry in Iran, 2020)
- A42. S. N. Nabavi, S. M. Sajjadi, Z. Lotfi , Novel magnetic nanoparticles as adsorbent in ultrasound-assisted micro-solid-phase extraction for rapid pre-concentration of some trace heavy metal ions in environmental water samples: desirability function, *CHEMICAL PAPERS*, **2020**; 74: 1143-1159.
- A41. M. Fasihi, M. Rajabi, B. Barfi, S. M. Sajjadi, Deep eutectic-based vortex-assisted/ultrasound-assisted liquid-phase microextractions of chromium species, *Journal of the Iranian Chemical Society*, **2020**; 17: 1705–1713.
- A40. Z. Lotfi, H. Zavvar Mousavi, S. M. Sajjadi, Covalently bonded dithiocarbamate-terminated hyperbranched polyamidoamine polymer on magnetic graphene oxide nanosheets as an efficient sorbent for preconcentration and separation of trace levels of some heavy metal ions in food samples, *Journal of Food Measurement and Characterization*, **2020**; 14: 293-302.
- A39. Z. Lotfi, H. Zavvar Mousavi, S. M. Sajjadi Selective ultrasound enhanced removal of anionic dyes from binary mixture using multivariate calibration and central composite design modeling by positively charged hyper branched ammonium functionalized magnetic graphene oxide, *Journal of Applied Chemistry* , **2020**; 14: 67-78.
- A38. F. Mahmoudian, F. Nabizadeh Chianeh, S. M. Sajjadi, Simultaneous removal of some dyes using advanced electrochemical oxidation method: Multivariate calibration (PLS) method, *Journal of Applied Chemistry*, **2020**; 14: 27-33. (In Persian Language).
- A37. M. Rashidi, S. M. Sajjadi, H. Zavvar Mousavi, Kinetic analysis of azo dye decolorization during their acid–base equilibria: photocatalytic degradation of tartrazine and sunset yellow, *Reaction kinetics, mechanisms and catalysis*, **2019**; 128: 555-570.
- A36. H. Etezadi, S. M. Sajjadi, Aziz Maleki, Crucial Successes in Drug Delivery Systems Using Multivariate Chemometrics Approaches: Challenges and Opportunities, *New Journal of Chemistry*, **2019**; 13: 5077-5087.
- A35. F. Hamdi Holasoo, F. Nemati, A. Amoozadeh, S. M. Sajjadi, Synthesis and delayed germination of vinyl acetate-butyl acrylate copolymer for coating of sugar beet seeds using combined experimental design and image, *Journal of Applied Chemistry* , **2019**; 13: 21-28.

- A34. T. Davoudizadeh, S. M. Sajjadi, L. Ma'mani, Exhaustive investigation of drug delivery systems to achieve optimal condition of drug release using non-linear generalized artificial neural network method: feedback from the loading step of drug, *Journal of the Iranian Chemical Society*, **2018**; 15: 1999–2006.
- A33. Z. Dahaghin, H. Zavvar Mousavi, S. M. Sajjadi, Synthesis and application of a novel magnetic SBA-15 nanosorbent for heavy metal removal from aqueous solutions, *JOURNAL OF SOL-GEL SCIENCE AND TECHNOLOGY*, **2018**; 86: 217-225.
- A32. Z. Dahaghin, H. Zavvar Mousavi, S. M. Sajjadi, Determination and preconcentration of trace amounts of Cd(II), Cu(II), Ni(II), Zn(II), and Pb(II) ions by functionalized magnetic nanosorbent and optimization using a Box-Behnken design and detection of them by a flame atomic absorption spectrometer, *Scientia Iranica*, **2018**; 86: 217-225.
- A31. Z. Lotfi, H. Zavvar Mousavi, S. M. Sajjadi, Nitrogen doped nano porous graphene as a sorbent for separation and preconcentration trace amount of Pb, Cd and Cr by Ultrasonic assisted in-syringe dispersive micro solid phase extraction, *Applied Organometallic Chemistry*, **2018**; 32: e4162.
- A30. Z. Dahaghin, H. Zavvar Mousavi, S. M. Sajjadi, A novel magnetic ion imprinted polymer as a selective magnetic solid phase for separation of trace lead (II) ions from agricultural products, and optimization using a Box–Behnken design, *Food chemistry*, **2018**; 273: 275-281.
- A29. B. Abdous, S. M. Sajjadi, L. Ma'mani, β -Cyclodextrin Modified Mesoporous Silica Nanoparticles as a Nano-carrier: Response Surface Methodology to Investigate and Optimize Loading and Release Processes for Curcumin Delivery, *Journal of Applied Biomedicine*, **2017**; 15: 210-218.
- A28. S. Jadali, S. M. Sajjadi, H. Zavvar Mousavi, M. Rajabi, Combination of Experimental Design and Desirability Function as a Genuine Method to Achieve Common Optimal Conditions for the Adsorption of Pb(II) and Cu(II) onto the Poplar Tree Leaves: Equilibrium, Kinetic and Thermodynamic Studies, *Analytical and Bioanalytical Chemistry Research*, **2017**; 4: 171-187.
- A27. Z. Lotfi, H. Zavvar Mousavi, S. M. Sajjadi, Magnetic carbon nanotubes modified with 1,4 diazabicyclo[2.2.2] octane are a viable sorbent for extraction of selective serotonin reuptake inhibitors. *Microchimica Acta*, **2017**; 184: 1427–1436.
- A26. T. Shamsi, A. Amoozadeh, Elham Tabrizian, S.M. Sajjadi, A new zwitterionic nano-titania supported Keggin phosphotungstic heteropolyacid: an efficient and recyclable heterogeneous nanocatalyst for the synthesis of 2,4,5-triaryl substituted imidazoles, *Reaction Kinetics, Mechanisms and Catalysis*, **2017**; 121: 505–522.
- A25. Z. Dahaghin, H. Zavvar Mousavi, S. M. Sajjadi, Synthesis and Application of Magnetic Graphene Oxide Modified with 8-Hydroxyquinoline for Extraction and Preconcentration of Trace Heavy Metal Ions, *CHEMISTRYSELECT*, **2017**; 2: 1282-1289.
- A26. Z. Lotfi, H. Zavvar Mousavi, S. M. Sajjadi, A hyperbranched polyamidoamine dendrimer grafted onto magnetized graphene oxide as a sorbent for the extraction of synthetic dyes from foodstuff, *Microchimica Acta*, **2017**; 184: 4503–4512.
- A25. Z. Dahaghin, H. Zavvar Mousavi, S. M. Sajjadi, Trace amounts of Cd (II), Cu (II) and Pb (II) ions monitoring using Fe₃O₄@ graphene oxide nanocomposite modified via 2-mercaptobenzothiazole as a novel and efficient nanosorbent. *Journal of Molecular Liquids*, **2017**; 231: 386-395.
- A24. Z. Lotfi, H. Zavvar Mousavi, S. M. Sajjadi, Amino-terminated hyper-branched polyamidoamine polymer grafted magnetic graphene oxide nanosheets as an efficient sorbent for the extraction of selective serotonin reuptake inhibitors from plasma samples, *Analytical Methods*, **2017**; 31: 4504-4513.
- A23. M. Hemmatian, A. Bagheri, S.M. Sajjadi, Prediction of Surface Tension and Surface Properties of binary mixtures Containing Ionic Liquids Using Thermodynamics and Artificial Neural Network Models, *Journal of Applied Chemistry*, **2017**; 12: 181-196. (In Persian Language)
- A22. B. Abdous, S. M. Sajjadi, L. Ma'mani, Using Response Surface curve and compare it with hard modeling process optimization curcumin drug delivery, *Journal of Applied Chemistry*, **2016**; 39: 197-210. (In Persian Language)
- A21. S. M. Sajjadi, H. Abdollahi, R. Rahmanian, L. Bagheri, “Quantifying aflatoxins in peanuts using fluorescence spectroscopy coupled with multi-way methods: Resurrecting second-order advantage in excitation–emission matrices with rank overlap problem, *Spectrochim Acta A Mol Biomol Spectrosc*, **2016**; 156:63-69.
- A20. T. Shamsi, A. Amoozadeh, S.M. Sajjadi, Elham Tabrizian, “Novel type of SO₃H–functionalized nano-titanium dioxide as a highly efficient and recyclable heterogeneous nanocatalyst for the synthesis of tetrahydrobenzo[b]pyrans”, *Applied Organometallic Chemistry*, **2016**: 1-9.

- A19. Z. Lotfi, H. Zavvar Mousavi, S. M. Sajjadi, "Covalently bonded double-charged ionic liquid on magnetic graphene oxide as a novel, efficient, magnetically separable and reusable sorbent for extraction of heavy metals from medicine capsules, RSC Advances, **2016**; 6: 90360-90370.
- A18. G. Fakhriyan, H. Zavvar Mousavi, S. M. Sajjadi, "Speciation and determination of Cr(III) and Cr(VI) by directly suspended droplet microextraction coupled with flame atomic absorption spectrometry: an application of central composite design strategy as an experimental design tool", Analytical Methods, **2016**; 8: 5070-5078.
- A17. G. Fakhriyan, H. Zavvar Mousavi, S. M. Sajjadi, "One-step determination of lead over a higher linear range by an artificial neural network after air-assisted liquid-liquid microextraction coupled to flame atomic absorption spectrometry", Analytical Methods, **2016**; 8: 995-1002.
- A16. K. Asadpour-Zeynali, S. M. Sajjadi, F. Taherzadeh, "Second order advantage obtained by spectroelectrochemistry along with novel carbon nanotube modified mesh electrode: Application for determination of acetaminophen in Novafen samples", Spectrochim Acta A Mol Biomol Spectrosc, **2016**; 153:674-680.
- A15. B. Abdous, S. M. Sajjadi, L. Ma'mani, Investigation of Drug Release Kinetic in Nano-drug Delivery Systems by Chemometric Multivariate Hard Modeling Method, Journal of Applied Chemistry, **2015**; 35: 45-53. (*In Persian Language*)
- A14. S. Khademinia, M. Behzad, A. Alemi, M. Dolatyari, S. M. Sajjadi, "Catalytic performance of bismuth pyromanganate nanocatalyst for Biginelli reactions", RSC Advances, **2015**; 5 (87): 71109-71114.
- A13. M. Poureskandari, E. Safaei, S. M. Sajjadi, T. Karimpour, Z. Jaglicic, Y.-I. Lee, "Iron(III) complex of N-phenylethylenediamine derivative of amine bis(phenol) ligand as model for catechol dioxygenase: Synthesis, characterization and complexation studies", Journal of Molecular Structure, **2015**; 1094:130-136.
- A12. A. Zamani, M. Salehi, S.M. Sajjadi, M. Kubicki, G. Dutkiewicz, A. Khaleghian, "Synthesis, characterization, spectrophotometric investigation, structural study, and antibacterial activities of a series of new zinc (II) complexes", Journal of Coordination Chemistry, **2014**; 67:1782-1793.
- A11. K. Asadpour-Zeynali, S. M. Sajjadi, F. Taherzadeh, R. Rahmanian, "Analysis of variation matrix array by bilinear least squares-residual bilinearization (BLLS-RBL) for resolving and quantifying of foodstuff dyes in a candy sample", Spectrochim Acta A Mol Biomol Spectrosc, **2014**; 123:273-281.
- A10. E. Ghorbani-kalhor, S. M. Sajjadi, A. Naseri, J. Abolhasani, M. T. Vardini "Modified Model-Based Rank Annihilation Factor Analysis to Quantitative Analysis of pH-Modulated Mixture Samples", Current Analytical Chemistry, **2013**; 10:552-564.
- A9. B. Haghighi, L. Nazari, S. M. Sajjadi, "Fabrication and Application of a Sensitive and Highly Stable Copper Hexacyanoferrate Modified Carbon Ionic Liquid Paste Electrode for Hydrogen Peroxide and Glucose Detection", Electroanalysis, **2012**; 24: 2165-2175.
- A8. K. Asadpour-Zeynali, A. Naseri, J. Vallipour, S. M. Sajjadi, "Resolving of Voltammetric Data for the Ni-Glycine and Cu-Glycine Complexation Systems with Reversible and Irreversible Electrochemical Response Using MCR-ALS", Journal of Solution Chemistry, **2012**; 41: 1299-1310.
- A7. T. Khayamian, S.M. Sajjadi, Sh. Mirmahdich, A. Mardihallaj, Z. Hashemian, "Simultaneous analysis of bifentherin and tetramethrin using corona discharge ion mobility spectrometry and Tucker3 model, Chemometrics Intelligent Laboratory Systems, **2012**; 118: 86-96.
- A6. H. Abdollahi and S. M. Sajjadi, "Hard-soft modeling parallel factor analysis to solve chemical equilibrium processes", Journal of Chemometrics, **2011**; 25: 169-182.
- A5. H. Abdollahi and S. M. Sajjadi, "On rotational ambiguity in parallel factor analysis", Chemometrics Intelligent Laboratory Systems, **2010**; 103: 144-151.
- A4. T. Khayamian, G.H. Tan, A. Sirhan, Y.F. Siew, S. M. Sajjadi, "Comparison of three multi-way models for resolving and quantifying bifentherin and tetramethrin using gas chromatography-mass spectrometry", Chemometrics Intelligent Laboratory Systems, **2009**; 96: 149-158.
- A3. H. Abdollahi and S. M. Sajjadi, "Evaluation of variation matrix arrays by parallel factor analysis", Journal of Chemometrics, **2009**; 23: 139-148.

- A2. H. Abdollahi and S. M. Sajjadi, "Soft-Modeling based spectrofluorimetric study of simultaneous equilibria", *Luminescence*, **2009**; 24:332-339.
- A1. M. Kompany-Zareh, H. Tavallali, M. Sajjadi, "Application of generalized artificial neural networks couple with orthogonal design to optimization of a system for the kinetic spectrophotometric determination of Hg (II)", *Anal. Chim. Acta* **2002**; 469: 303-310.

B. Theses Supervised (\bar{I} = Supervisor, \mathbf{I} = Co-supervisor, \neg = Advisor)

| | | | |
|-------|---|----------------------------|-----------------------------|
| Ph.D. | Z. Asadollahpour, \bar{I} | A. Kiasadr \mathbf{I} | S. Loh Mousavi, \bar{I} |
| | J. Yousefi, \bar{I} | B. Abdous \bar{I} | F. Bataghva, \bar{I} |
| | H. Etezadi \bar{I} | Z. Lotfi \neg | F. Hamdi Holasoo, \neg |
| | Z. Dahaghin, \neg | G. Fakhriyan, \neg | S. Khademinia, \neg |
| | F. Taherzadeh, \neg | M. Fasihi, \neg | |
| | | | |
| M.Sc. | H. Sohofi \bar{I} | M. Khosravi \bar{I} | S. Kholghi \bar{I} |
| | F. Khorammanesh | F. Aghababaei \bar{I} | Z. Asadollahpour \bar{I} |
| | S. Tabatabaie \bar{I} | N. Larki \bar{I} | V. Amiri \bar{I} |
| | M. Shahsaheb, \bar{I} | F. Zolfagharian, \bar{I} | F. Mahmoudian, \neg |
| | A. Mollaian, \mathbf{I} | F. Dezhdah, \mathbf{I} | Z. Asadollahpour, \bar{I} |
| | S. Nouri, \bar{I} | S. N. Nabavi, \bar{I} | F. Chitgaran, \mathbf{I} |
| | T. Mohammadi Tejergani Fini, \mathbf{I} | M. Hemmatian, \mathbf{I} | M. Rashidi, \mathbf{I} |
| | A. Mirmohseni, \neg | T. Shamsi, \neg | Z. Zarei, \mathbf{I} |
| | F. S. Vafsiyan, \neg | F. Yousefi, \neg | M. Ahmadi, \neg |
| | T. Davoudizadeh, \mathbf{I} | P. Haghighat, \neg | Z. Afrooznia, \neg |
| | B. Abdous, \mathbf{I} | Z. Zarei, \mathbf{I} | S. Jadali, \mathbf{I} |
| | R. Rahmanian, \mathbf{I} | | |

C. Presentations

- C24. S. M. Sajjadi, Some misleading issues in drug delivery systems and their associated demands for employing multivariate chemometrics approaches, 7th Iranian Biennial Chemometrics Seminar, Shahrood University of Technology, Sharood, Iran, Oct. 30-31, **2019**, (Invited Speaker).
- C23. S. M. Sajjadi, J. Yousefi, Combination of Multivariate Curve Resolution Alternating Least Squares Method and Experimental Design to Optimize the Simultaneous Photocatalytic Degradation of some Nitro phenols, 7th Iranian Biennial Chemometrics Seminar, Shahrood University of Technology, Sharood, Iran, Oct. 30-31, **2019**, (poster).
- C22. Z. Asadollahpour, S. M. Sajjadi, H. Zavvar Mousavi, Z. Lotfi, Synthesis of novel adsorbent based on magnetic nanoparticles modified with Llysine for efficient removal of Cr(VI) from aqueous solutions: central composite design and response surface methodology, 26th Iranian Seminar of Analytical Chemistry, Semnan University, Semnan, Iran, Aug. 25-27, **2019**. (Poster)
- C21. Aiming at two distinct researches: Analysis of four-way and five-way chemical data with rank deficiency problems in three-modes; discerning the monitoring problems in drugs co-delivery, 15th Iranian Workshop on Chemometrics, Institute for Advanced Studies in Basic Sciences (IASBS), Zanjan, Iran, May 25-26, **2017**. (Invited Speaker)
- C20. S. M. Sajjadi, How chemometrics helps researchers to flourish their projects in different disciplines such as chemistry, pharmacy and mechanical engineering, 30 Aug-1 Sep, **2017** (Invited Speaker)

- C19. S. Nouri, S. M. Sajjadi, Z. Lotfi, Investigating Photo-degradation Processes of Some Textile Dyes with Novel Synthesized Nano-photo-catalyst $\text{CoO@SiO}_2\text{@TiO}_2$, 26th Iranian Seminar of Analytical Chemistry, Semnan University, Semnan, Iran, Aug. 25-27, **2019**. (Poster)
- C18. S. M. Sajjadi, Zahra Abed, Atefeh Emadi, Investigating the Kinetic Mechanism of 2-nitrophenol Photo-degradation with ZnO Nano-photo-catalyst: Multivariate hard modelling approach, 26th Iranian Seminar of Analytical Chemistry, Semnan University, Semnan, Iran, Aug. 25-27, **2019**. (Poster)
- C17. M. Rashidi, S. M. Sajjadi, Investigating photo-catalytic reaction of sunset yellow and nano- Fe_2O_3 using Model-based rank annihilation factor analysis: determination of photodegradation rate constant, 1st Iranian Applied Chemistry Seminar (IIACS), University of Tabriz, Iran, Aug. 22-23, **2016** (Poster).
- C16. S. M. Sajjadi, "Combination of Multivariate methods and experimental design to optimize chemical and biochemical processes", 18th Iranian Chemistry Congress, Semnan University, Iran, Aug. 30-Sep. 1, **2015**. (Invited Speaker)
- C15. B. Abdous, S. M. Sajjadi, L. Ma'mani "Synthesis of functionalized mesoporous silica nanoparticle as nano-carrier in drug delivery system: Experimental design to optimize the drug loading process", 18th Iranian Chemistry Congress, Semnan University, Iran, Aug. 30-Sep. 1, **2015**. (Poster)
- C14. S. M. Sajjadi, H. Zavvar-Mousavi, S. Jadali, M. Rajabi, Adsorption on Biosorbent by Experimental design", 18th Iranian Chemistry Congress, Semnan University, Iran, Aug. 30-Sep. 1, **2015**. (Poster)
- C13. A. Khaligh, H. Zavvar Mousavi, A. Rashidi, H. Shirkhanloo, S. M. Sajjadia, Agricultural Waste-Based Microporous Activated Carbon Modified with Amine Functional Groups for Removal of Cd (II) and Ni (II) Ions from Aqueous Solutions, 18th Iranina Chemistry Congress, Semnan University, Iran, Aug. 30-Sep. 1, **2015**. (Poster)
- C12. T. Davoudizadeh, S. M. Sajjadi, L. Ma'mani "Combination of Generalized Artificial Neural Network and Central Composite Design to Optimize the Loading Process in Drug Delivery Systems, 18th Iranina Chemistry Congress, Semnan University, Iran, Aug. 30-Sep. 1, **2015**. (Poster)
- C11. سیده مریم سجادی، "مهرفی کمومتریکس و اهمیت شبیه سازی: مطالعه موردی سینتیک و تعادل"، هشتمین کنفرانس آموزش شیمی ایران - دانشگاه سمنان، ۶ - ۷ شهریور ۱۳۹۲ (سخنرانی)
- C10. S. M. Sajjadi, "A Unified Framework for Iterative Multi-way Methods: Constrained N-Mode Factor Analysis (CNMFA)", 3rd Iranian seminar of chemometrics, Tabriz University, Iran, Nov. 9-10, **2011**. (General Lecturer)
- C9. R. Khani, F. Shemirani, S. M. Sajjadi, "Simultaneous spectrophotometric determination of phenolic acids by partial least squares method", 15th Iranian Chemistry Congress, Bu-Ali Sina University, Hamadan, Iran, Sep.6-7. **2011**. (Poster)
- C8. E. Rokrok, F. Shemirani, S. M. Sajjadi, "Simultaneous spectrophotometric determination of palladium and mercury by chemometrics methods in aqueous samples using alumina nano particles", 15th Iranian Chemistry Congress, Bu-Ali Sina University, Hamadan, Iran, Sep.6-7. **2011**. (Poster)
- C7. H. Abdollahi, M. Dadashi, S. M. Sajjadi, "Application of PARALIND method to determine sunset yellow and taertrazin in powder drinks", 15th Iranian Chemistry Congress, Bu-Ali Sina University, Hamadan, Iran, Sep.6-7. **2011**. (Poster)
- C6. S. M. Sajjadi, M. Rafie, N. Bagheri, "Analysis of Variation Matrices by BLLS-RBL Method" 17th Iranian Seminar of Analytical Chemistry, Kashan University, Kashan, Iran, Sep. 12-14, **2010**, (Oral)
- C5. H. Abdollahi and S. M. Sajjadi, "Combining hard and soft modelling parallel factor analysis to solve equilibrium process", 2nd Iranian seminar of chemometrics, Urmia University, Urmia, Iran, Oct. 27-29, **2009**, (Oral).

- C4. H. Abdollahi and S. M. Sajjadi, "Evaluation of Variation Matrix Arrays by Parallel Factor Analysis and Bilinear Least Squares", 15th Iranian Seminar of Analytical Chemistry, Shiraz University, Shiraz, Iran, Feb 27-29, **2007**. (Oral)
- C3. H. Abdollahi and S. M. Sajjadi, "Spectrophotometric Study of Acid Dissociation Equilibria in Mixtures by New Version of Rank Annihilation Factor Analysis", 14th Iranian Seminar of Analytical Chemistry, Birjand University, Birjand, Iran, Aug. 29-31, **2005**. (Oral)
- C2. H. Abdollahi and S. M. Sajjadi, "Extent reaction concept and hard-modeling method, First Iranian seminar of chemometrics, Arak University, Arak, Iran, Sep. 5-6, **2006**. (Oral)
- C1. H. Abdollahi and S. M. Sajjadi, "Resolving three-way equilibrium acid-base titration data using Combination of MCR-ALS and Rank Annihilation Factor analysis method", 13th Iranian Seminar of Analytical Chemistry, Ferdowsi University, Mashhad, Iran, March, 18-19, **2004**. (Poster)

Participation in Workshops

| | | |
|---|---|-----------------------|
| - | Iranian Workshop on Chemometrics Hold on Institute for Advanced Studies in Basic Sciences | |
| - | 8 th | Feb. 7-9, 2009 |
| - | 7 th | Feb. 3-5, 2008 |
| - | 6 th | Feb. 6-9, 2007 |
| - | 5 th | March 14-16, 2006 |
| - | 4 th | Aug.31- Sept. 2, 2005 |
| - | 3 th | August, 26-28, 2004 |
| - | 2 rd | August, 27-29, 2003 |
| - | Bioinformatics workshop, Isfahan University of Technology, Isfahan, Iran, Feb. 17-19, 2009. | |

Funding

| | | |
|-------------------------|---|--|
| A1. | | |
| Granting Agency: | Iran National Science Foundation (INSF) and Semnan University | |
| Title: | A Novel and Green Method for Photocatalytic Degradation of Nitrophenols in Wastewater Solutions Using Iron Oxide Nanostructures: Monitoring the Degradation Process by the Combination of Spectrophotometric and Advanced Chemometric Methods | |
| Principal Investigator: | SM Sajjadi | |
| Co- Investigator: | B. Abdous | |
| Percent of Effort: | | |
| Total Direct Cost: | (60% INSF and 40% Semnan University) | |
| Awarded | | |
| Dates: | 2016-2018 | |

Skills in Computer Programming

Software: Matlab, Minitab, Design Expert

Research Interest

- ❖ Analysis of Multi-way Data, such as GC/MS, EEM, HPLC/DAD by Advanced Multi-way Chemometric Methods such as PARAFAC, MCR-ALS, N-PLS, PARALIND, Tucker, BLLS-RBL...
- ❖ Studying of Kinetic and Equilibrium Processes in Adsorption Systems
- ❖ Spectrophotometric and spectrofluorimetric Study of acid-base Equilibria, complexometric systems and Photo-Catalytic Reactions
- ❖ Experimental design in different chemical processes such as drug delivery systems, synthesizing nano-catalyst, photo-catalytic reactions, separation and extraction methods....
- ❖ Artificial Neural Network Methods and Quantitative Structure-activity Relationship studies