

دکتر کبری زارعی

مرتبه علمی: دانشیار پایه ۲۹

وضعیت استخدامی: رسمی قطعی

دانشگاه صنعتی اصفهان ۱۳۷۸

تحصیلات: دکترای شیمی تجزیه

آدرس ایمیل: zarei@du.ac.ir

Papers

- 1- H. Atabati, K. Zarei, H. R. Zare, QSAR studies of halogenated pyrimidine derivatives as inhibitors of human dihydroorotate dehydrogenase using modified bee algorithm, *Combinatorial Chemistry and High Throughput Screening* 21 (2018) 381-387.
- 2- H. R. Akbari, K. Zarei, Electrochemical sensor for ultrasensitive determination of ceftazidime using hollow platinum nanoparticles/reduced graphene oxide/pencil graphite electrode, *Chemical Papers*, 72 (2018) 1935–1944.
- 3- F. Azadmehr, K. Zarei, Ultrasensitive determination of ceftizoxime using pencil graphite electrode modified by hollow gold nanoparticles/reduced graphene oxide, *Arabian Journal of Chemistry*, DOI: 10.1016/j.arabjc.2018.02.004
- 4- K. Zarei, F. Taheri, Prediction of solubility of some stain drugs in supercritical carbon dioxide using classification and regression tree analysis and adaptive neuro-fuzzy inference systems, *Russian Chemical Bulletin*, 65 (2016) 1131-1138.
- 5- K. Kor, K. Zarei, Development and characterization of an electrochemical sensor for furosemide detection based on electropolymerized molecularly imprinted polymer, *Talanta*, 146 (2015) 181-187.
- 6- K. Zarei, S. Moghaddary, Sensitive spectrophotometric determination of ascorbic acid in drugs and foods using surface Plasmon resonance band of silver nanoparticles, *Cogent Chemistry*, 1 (2015) 1-8.
- 7- K. Kor, K. Zarei, Electrochemical determination of chloramphenicol on glassy carbon electrode modified with multi-walled carbon nanotube-cetyltrimethylammonium bromide-poly(diphenylamine), *Journal of Electroanalytical Chemistry*, vol. 733, 2014, pages 39-46.
- 8- D. Ajloo, M. Ghadamgahi, F. Shaheri, K. Zarei, Absorbance spectroscopy, molecular dynamics calculations, and multivariate curve resolution on the

phthalocyanine aggregation, *Bulletin of the Korean Chemical Society*, vol. 35, 2014, pages 1440-1448.

9- K. Zarei, M. Atabati, K. Kor, Bee algorithm and adaptive neuro-fuzzy interference system as tools for QSAR study toxicity of substituted benzenes to *tetrahymena pyriformis*, *Bulletin of Environmental Contamination and Toxicology*, vol. 92, 2014, pages 642-649.

10- Zarei, M. Atabati, E. Teymori Multivariate adaptive regression splines for prediction of rate constants for radical degradation of aromatic pollutants in water, *Journal of Solution Chemistry*, vol. 43, 2014, pages 445-452.

11- K. Kor, A.P.F. Turner, K. Zarei, M. Atabati, V. Beni, W.C. Mak, Structurally responsive oligonucleotide-based single-probe lateral-flow test for detection of miRNA-21 mimics, *Analytical and Bioanalytical Chemistry*, Analytical and Bioanalytical Chemistry, 408 (2016) 1475-1485.

12- B. Bahadori, M. Atabati, K. Zarei, Better prediction of aqueous solubility of chlorinated hydrocarbons using support vector machine modeling, *Environmental Chemistry Letters*, 14 (2016) 541-548.

13- K. Kor, K. Zarei, β -cyclodextrin incorporated carbon nanotube paste electrode as electrochemical sensor for nifedipine, *Electroanalysis*, 25 (2013) 1497-1504.

14- K. Zarei, M. Alinejad, R. Alizadeh, Simultaneous voltammetric determination of Mo(VI) and W(VI) by adsorptive differential pulse stripping method using adaptive neuro-fuzzy inference system, *Journal of Analytical Chemistry*, 68 (2013) 885-890.

15- K. Zarei, M. Atabati, Prediction of infinite dilution activity coefficients of halogenated hydrocarbons in water using classification and regression tree analysis and adaptive neuro-fuzzy inference systems, *Journal of Solution Chemistry*, 42 (2013) 516-525.

16- K. Zarei, M. Atabati, S. Moghaddary, Predicting the heats of combustion of polynitro arene, polynitro heteroarene, acyclic nitramine, nitrate ester and nitroaliphatic compounds using bee algorithm and adaptive neuro-fuzzy inference system, *Chemometrics and Intelligent Laboratory Systems*, 128 (2013) 37-48.

17- K. Kor, K. Zarei, M. Atabati, Shuffling multivariate adaptive regression splines for QSPR correlation of the melting point of pyridinium bromides, potential ionic liquids, *Revue Roumaine de Chimie*, 57 (2012) 615-622.

18- K. Zarei, L. Fatemi, Prediction of retention of pesticides in reversed-phase high-performance liquid chromatography using classification and regression tree analysis and adaptive neuro-fuzzy inference systems, *Journal of Liquid Chromatography & Related Technologies*, 35 (2012) 854-865.

19- K. Zarei, Z. Salehabadi, The shuffling multivariate adaptive regression splines and adaptive neuro-fuzzy inference system as tools for QSPR study bioconcentration

factors of polychlorinated biphenyls (PCBs), *Structural Chemistry*, 23 (2012) 1801-1807.

20- K. Zarei, M. Atabati, M. Golmohammadi, Catalytic determination of ultra trace amounts of palladium by linear sweep voltammetry
Journal of Analytical Chemistry, 66 (2011) 646-650.

21- K. Zarei, M. Atabati, M. Karami, H-point standard addition method applied to simultaneous kinetic determination of antimony(III) and antimony(V) by adsorptive linear sweep voltammetry, *Journal of Hazardous Materials*, 179 (2010) 840-844.

22- M. Atabati, K. Zarei, A. Borhani, Predicting dilution activity coefficients of hydrocarbons in water using ant colony optimization, *Fluid Phase Equilibria*, 293 (2010) 219-224.

23. K. Zarei, M. Atabati, M. Golmohammadi, Simultaneous kinetic spectrophotometric determination of V(IV) and V(V) by H-point standard addition method, *Asian Journal of Chemistry*, 22 (2010) 3479-3486

24- K. Zarei, M. Atabati, R. Shoari, Catalytic adsorptive stripping voltammetry determination of ultra trace amount of tungsten using factorial design for optimization
Journal of Analytical Chemistry, 65 (2010) 518-524.

25- M. Atabati, K. Zarei, M. Mohsennia, Prediction of λ_{\max} of 1,4-naphthoquinone derivatives using ant colony optimization, *Analytica Chimica Acta*, 663 (2010) 7-10.

26- K. Zarei, M. Atabati, E. Abdinasab, Spectrophotometric determination of conditional acidity constant of some sulfonephthalein dyes as a function of anionic, neutral and cationic surfactants concentrations using rank annihilation factor analysis
Eurasian Journal of Analytical Chemistry, 4 (2009) 314-327.

27- M. Atabati, K. Zarei, E. Abdinasab, Classification and regression tree analysis for molecular descriptor selection and binding affinities prediction of imidazobenzodiazepines in quantitative structure-activity relationship studies
Bulletin of the Korean Chemical Society, 30 (2009) 2717-2722

28- K. Zarei, M. Atabati, M. Karami, Mean centering of ratio kinetic profiles for the simultaneous kinetic determination of binary mixtures in electroanalytical methods
Analytica Chimica Acta, 649 (2009) 62-67.

29- K. Zarei, M. Atabati, QSAR study of anti-HIV activities against HIV-1 and some of their mutant strains for a group of HEPT derivatives, *Journal of the Chinese Chemical Society*, 56 (2009) 206-213.

30- M. Atabati, K. Zarei, Prediction of GC retention indexes for insect-produced methyl-substituted alkanes using wavelet neural network, *Journal of the Chinese Chemical Society*, 55 (2008) 732-739.

31- M. Nekoei, M. Mohammadhosseini, K. Zarei, Simultaneous kinetic determination of phosphate and silicate by spectrophotometric H-point standard addition method

Journal of the Chinese Chemical Society, 55 (2008) 362-368.

32- K. Zarei, M. Atabati, N. Karimian, Simultaneous dual wavelength spectrophotometric determination of citric and ascorbic acid using artificial neural network, Journal of Analytical Chemistry, 63 (2008) 145-150.

33- K. Zarei, M. Atabati, M. Safaei, Simultaneous spectrophotometric determination of aluminum and iron in micellar media by using H-point standard addition method Journal of the Chinese Chemical Society, 54 (2007) 1395-1400

34- K. Zarei, M. Atabati, M. Ebrahimi, Quantitative structure-property relationship study of the solvent polarity using wavelet neural networks Analytical Sciences, 23 (2007) 937-942.

35- K. Zarei, M. Atabati, N. Karimian, Simultaneous kinetic spectrophotometric determination of citric and ascorbic acid by H-point standard addition method Indian Journal of Chemical Technology, 14 (2007) 417-422.

36- K. Zarei, M. Atabati, M. Nekoei, Simultaneous spectrophotometric determination of phosphate and silicate by using principal component artificial neural network Annali di Chimica, 97 (2007) 723-731.

37- K. Zarei, M. Atabati, Principal component-wavelet neural network as a multivariate calibration method for simultaneous determination of iron, nickel, and cobalt, Analytical Letters, 39 (2006) 2085-2094.

38- Catalytic adsorptive stripping voltammetry determination of ultra trace amount of molybdenum using factorial design for optimization, K. Zarei, M. Atabati, H. Ilkhani, Talanta, 69 (2006) 816-821.

39- K. Zarei, M. Atabati, Z. Malekshabani, Simultaneous spectrophotometric determination of iron, nickel and cobalt in micellar media by using direct signal correction-partial least squares method, Analytica Chimica Acta, 556 (2006) 247-254.

40- K. Zarei, M. Atabati, Prediction of GC retention indexes for insect-produced methyl-substituted alkanes using an artificial neural network and simple structural descriptors, Journal of Analytical Chemistry, 60 (2005) 732-737.

41- K. Zarei, M. Atabati, L. Kazemi, Simultaneous determination of Fe(II) and Fe(III) in pharmaceutical formulations with chromogenic mixed reagent by using principal component artificial neural network and multivariate calibration IL Farmaco, 60 (2005) 37-42.

42- A.A. Ensafi, K. Zarei, Simultaneous determination of trace amounts of cadmium, nickel and cobalt in water samples by adsorptive voltammetry using ammonium 2-amino-cyclopentene dithiocarboxylate as a chelating agent Talanta, 52 (2000) 435-440.

43- A.A. Ensafi, H.R. Mansour, K. Zarei, M.B. Gholivand, Determination of ultra-trace amounts of cobalt by adsorptive differential pulse voltammetry using ACDA (2-

aminocyclopentene-1-dithiocarboxylic acid), Journal of Sciences Islamic Republic of Iran, 11 (2000) 93-97.

44- A.A. Ensafi, K. Zarei, Spectrophotometric reaction rate method for the determination of silver based on its catalytic effect on the oxidation of galloxyanine by peroxydisulphate

Journal of Sciences Islamic Republic of Iran, 10 (1999) 19-25.

45- A.A. Ensafi, K. Zarei, Determination of ultratrace amounts of osmium using catalytic wave of OsO₄-bromate system by voltammetric method

Analytical sciences, 15 (1999) 851-855.

46- K. Zarei, M. Atabati, M. Ahmadi, Shuffling cross validation bee algorithm as a new descriptor selection method for retention studies of pesticides in biopartitioning micellar chromatography, Journal of Environmental Science and Health, Part B Pesticides, Food Contaminants, and Agricultural Wastes, 52 (2017) 346-352.

47- K. Zarei, A. Khodadadi, Very sensitive electrochemical determination of diuron on glassy carbon electrode modified with reduced graphene oxide-gold nanoparticle-Nafion composite film, Ecotoxicology and Environmental Safety, 144 (2017) 171-177.

Conference Proceedings

1- M. Atabati, K. Zarei, Use of artificial neural network in a QSAR study of anti-HIV activities for a group of HEPT derivatives, 6th Iranian Biophysical Chemistry Conference, 7-9 september 2004, Damghan University of Basic Sciences.

2- M. Atabati, K. Zarei, F. Shaeiri, Simultaneous spectrophotometric determination of ampicillin and amoxycillin by rank annihilation factor analysis, 1st Iranian Seminar of Chemometrics, 5-6 September 2006, Arak University.

3- K. Zarei, M. Atabati, F. Taheri, Simultaneous determination of vitamin B₂, B₆ and C by differential pulse voltammetry using ANFIS, 10th Asian Conference on Analytical Sciences, 11-13 August 2009, Malaysia.

4- K. Zarei, M. Atabati, L. Fatemi, β -cyclodextrin incorporated carbon nanotube-modified electrode as an electrochemical sensor for nocardine, 9th Biennial Electrochemistry Seminar of Iran, 22-24 January 2011, Yazd University.

5- K. Zarei, S. Moghaddari, Surface plasmon resonance of silver nanoparticles for determination of ascorbic acid in food and pharmaceutical samples, 15th Iranian Physical Chemistry Conference, 3-6 September 2012, University of Tehran.

6- K. Zarei, S. Nozad, Prediction of some drugs absorption in human using the classification and regression tree (CART) methodology, multiple linear regression (MLR) and adaptive neuro-fuzzy inference system (ANFIS), 1st Conference on Computational Science, 6-7 September 2012, Damghan University.

7- K. Zarei, H. Mallak, Voltammetric determination of dopamine, The 16th Iranian Chemistry Congress, 7-9 September 2013, Yazd University.

8- K. Zarei, K. Kor, β -cyclodextrin incorporated carbon nanotube paste electrode as electrochemical sensor for nifedipine - 8th Iranian Annual Seminar of Electrochemistry, 30-31 January 2013, Mazandaran University.

9- M. Atabati, K. Zarei, J. Akhondi, QSAR study of tubulin inhibitors using adaptive neuro-fuzzy inference system (ANFIS), 20th Iranian Analytical Chemistry Conference, 25-27 February 2014, Isfahan University of Technology.

10- M. Atabati, K. Zarei, A. Mahdian, Multivariate adaptive regression splines (MARS) for QSAR study on 5-(2-methylbenzimidazol-1-yl)-N-alkylthiophene-2-carboxamide derivatives as *P. falciparum* dihydroorotate dehydrogenase (PfDHODH) inhibitors, 20th Iranian Analytical Chemistry Conference, 25-27 February 2014, Isfahan University of Technology.

11- K. Zarei, H. Helli, Adaptive regression splines as tool for QSAR study flavonoid-mediated inhibition of breast cancer resistance protein, The 5th Iranian Conference on Bioinformatics, 20-22 May 2014, Tehran University.

12- K. Kor, K. Zarei, M. Atabati, A novel electrochemical sensor for furosemide based on electropolymerized molecularly poly(o-phenylenediamine), Sweden-Japan Seminar on Nanomaterials and Nanotechnology, 10-11 March 2015, Linköping University, Sweden.

13- K. Zarei, A. Azizi, Electrochemical determination of acetaminophen on the carbon paste modified electrode, 8th Iranian Chemistry Congress, 30 August – 1 September 2015, Semnan University.

14- K. Zarei, M. Hamidi, Electrochemical determination of theophylline on graphene oxide-sodium dodecyl sulfate-nafion (GO-SDS-Nafion) composite film modified glassy carbon electrode, 18th Iranian Chemistry Congress, 30 August – 1 September 2015, Semnan University.

15- K. Zarei, M. Lesani, Electrochemical determination of ceftazidime on the glassy carbon electrode modified with multiwalled carbon nanotube- β -cyclodextrin-poly(diphenylamine), The 23rd Iranian Seminar of Analytical Chemistry, 30 August – 1 September 2016, Sharif University of Technology.

16- K. Zarei, M. Atabati, M. Ahmadi, Prediction of skin sensitization using classification and regression tree analysis, 28-29 August 2016, Damghan University

17- K. Zarei, A. Amirhosseini, QSAR study of serotonin binding affinity with some drugs using bee algorithm, 28-29 August 2016, Damghan University

18- K. Zarei, Fatemeh Azadmehr, Determination of Ceftizoxime Using Reduced Graphene Oxide Hollow Gold Nanospheres (RGO-HGNs) Electrode by Differential Pulse Voltammetry, 12th Annual Electrochemistry Seminar of Iran, 16-17 Nov., 2016, Tarbiat Modares University.

19- K. Zarei, M. Ghorbani, Determination of streptomycin using molecularly imprinted polymer, 12th Biennial Electrochemistry Seminar, 3-4 May, 2017, Isfahan University.

20- H. R. Akbari Hasanjani, K. Zarei, An electrochemical sensor based on reduced graphene oxide-hollow [latinum nanoparticles modified pencil graphite electrode for ceftazidime determination, 13th Annual Electrochemistry Seminar of Iran, 22-23 Dec 2017, Materials and Energy Research Center, IRAN.

21-F. Azadmehr, K. Zarei, Electrochemical determinatipon of quinine in biological samples using molecularly imprinted polymers/MWCNT-chitosan pencil graphite electrode, 13th Annual Electrochemistry Seminar of Iran, 22-23 Dec 2017, Materials and Energy Research Center, IRAN.