

Dr Fahimeh Jalali

Professor

Department of Chemistry

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Professor in Analytical Chemistry since 2016

Associate Prof. in Analytical Chemistry (2008 - 2016)

Assistant Professor 2002-2008

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Personal Information

Name: Fahimeh Jalali

Date of Birth: Nov., 13, 1962

Place of Birth: Kermanshah, Iran

Nationality: Iranian

Marriage: Married, 2 children

Courses Taught

Fundamentals of Analytical Chemistry (B.S. chemistry students)

Electroanalytical chemistry (B.S. chemistry students)

Instrumental Analysis (B.S. chemistry students)

Advanced Analytical Chemistry (M.Sc. chemistry students)

Advanced Electrochemistry (M.Sc. analytical chemistry students)

Atomic spectroscopy (M.Sc. analytical chemistry students)

Molecular spectroscopy (M.Sc. analytical chemistry students)

Industrial Electrochemistry (PhD applied chemistry students)

Statistics in Analytical Chemistry (PhD analytical chemistry students)

New Trends in Analytical Chemistry (PhD and MS analytical chemistry students)

Electroanalytical Chemistry (MS students)

Research Interests

Construction of modified electrodes and application in voltammetric determination of pharmaceuticals, environmental and biological compounds.

Designing new efficient electrocatalysts for applications in fuel cells and supercapacitors.

Students graduated

PhD

1. P.S. Dorraji: Novel electrochemical sensors based on new modifiers and nano-composites for selective and sensitive determination of some... Oct. **2015**.
2. S. Zali: Development and application of sol-gel and electrospun nanofibers...Sep. **2014**.
3. Esmail Afshar: New Modified Electrodes for Voltammetric Analysis of Drugs; Combination of Voltammetry with Chemometrics for Simultaneous Analysis of Drugs..., **2016**.
4. Zahra Hasanvand,
5. Zahra Hatami
6. Sara Sheikhi Preparation and application of composites based on metal–organic frameworks and various carbon and metallic nanomaterials in electrochemical methanol oxidation, **2021**.
7. Elham Ragheb: Preparation of sorbents based on metal–organic frameworks and their application in removal and preconcentration of Heavy metals. **2022**.

PhD candidates:

Mitra Soltani

Mahsa Mottaghi

M. Sc. Degree

1. M. Ardehshiri and F. Jalali. Modified carbon paste electrode for the potentiometric determination of methadone and atorvastatin.... Oct. **2015**.
2. G. Rasaee and F. Jalali. Study of the interaction between the drug azathioprine and biological molecules DNA and HAS by using spectroscopic and molecular docking techniques. June **2015**.
3. S. Taheri, F. Jalali, Gh. Bahrami and N. Fattahi. Extraction of trace amounts of atorvastatin and methadone in biological samples using dispersive liquid-liquid microextraction based on solidification of organic droplet (DLLME-SFO)...Feb. **2015**.
4. Z. Hatami and F. Jalali. Square wave voltammetric determination of azathioprine using a graphene – chitosan modified glassy carbon electrode. Voltammetric determination of methimazole using electrochemically pretreated glassy carbon electrode. Oct. **2013**.
5. Zahra Hasanvand, Voltammetric Determination of Gabapentin with a Ni-Catechol Complex Modified Multiwalled Carbon-Nanotubes Carbon Ceramic Electrode...**2013**
6. S. Ryahi and F. Jalali Construction of a Carbon – Paste Electrode Modified with beta-Cyclodextrin and Its Application in the Indirect Voltammetric Determination of Amantadine, Feb. **2013**.
7. Voltammetric determination of gabapentin with a Ni-catechol complex modified multiwalled carbon nanotubes carbon ceramic electrode... Sep. **2013**.
8. H. Bahramipur and F. Jalali, Sensitive Determination of Paracetamol Using a Graphene-Modified Carbon Paste Electrode; Homogeneous Electrocatalytic Oxidation of Captopril by Iodide and Its Application to Pharmaceutical Analysis; Homogeneous Electrocatalytic Oxidation of Cystein by Iodide; Homogeneous Electrocatalytic Oxidation of Captopril by Chlorpromazine and Its Application to Pharmaceutical Analysis; Dec. **2011**.
9. L. Miri and F. Jalali, Voltammetric Determination of Methimazole Using an Oxovanadium Schiff Base Complex Modified Carbon Paste Electrode; Electrochemical Behavior of Carbon Paste Electrode Modified with Ni (II) – Zeolite and Its Application to Electro-Oxidation of Tryptophan; Dispersive Liquid-Liquid Microextraction and Spectrophotometric Determination of Clonazepam in Pharmaceutical Samples. Sep. **2011**

10. S. Ranjbar and F. Jalali, Electrocatalytic oxidation of captopril using a carbon-paste electrode modified with copper-cobalt hexacyanoferrate Sep. **2011**.
11. L. Karami and F. jalali, Spectrofluorimetric and Conductometric Study of Complexation Reaction Between Thiabendazole and Some Transition Metal Cations in Mixed Solvent of Acetonitrile and Dioxane; Preparation of a Carbon Paste Electrode Modified with a Cu Complex and Application to the Electrocatalytic Reduction of Periodate. Sep. **2010**.
12. N. Ezzati and F. Jalali, spectrofluorimetric Study and Detection of Desipramine in the presence of beta-cyclodextrin; Determination of chlorpromazine using a carbon paste electrode modified with beta-cyclodextrin Sep.**2010**.
13. R. Maghooli and F. Jalali, Thiabendazol incorporated carbon - paste electrode for trace analysis of Cu²⁺ in water samples; Preparation of a carbon paste electrode modified with nickel salophen complex and application to the electrocatalytic oxidation of tryptophan; Potentiometric determination of trace amounts of amantadine using a modified carbon paste electrode., Nov. **2009**.
14. A. Grandaneh and F. Jalali, Micellization of Cetyltrimethylammonium Bromide (CTAB) in Mixed Solvents and in the Presence of Potassium Bromide; Spectrofluorimetric determination of desipramine in pharmaceutical products, Nov. **2009**.
15. E. Ahmadi and F. jalali, Cloud-point extraction and speciation of chromium by flame atomic absorption spectrometry; Spectrophotometric determination of ezitimibe in micellar solutions and highly alkaline medium; Amperometric detection of ezitimibe in pharmaceutical formulations using multiwalled carbon nanotubes modified glassy carbon electrode, Oct. **2008**.
16. A.R. Shahbazi and F. Jalali, pHmetric study on complex formation between gabapentin , homocycloleucine and some transition metals in aqueous solutions; pHmetric study on complex formation between thiabendazole and some transition metals in water-alcohol

solvent mixture; Preparation of an ion-selective electrode for determination of thiabendazole, Feb. **2008**.

17. Ashrafi and F. Jalali, Conductance study of the thermodynamics of complexation of amantadine, rimantadine and aminocyclohexane with some macrocyclic compounds in acetonitrile solution; Measurement of dissolved oxygen in biological fluids by using a modified carbon Paste electrode, **2008**.
18. E. arkan and F. jalali, Preparation of a novel gabapentin-selective electrode and its application to pharmaceutical analysis; Preparation of a carbon paste electrode modified with 4,5-diaminocyclohexa- 3,5-dien 1,2-dion for the voltammetric determination of ketoconazole, Sep. **2007**.
19. A. Afshoon and F. Jalali, Micellar-enhanced spectrophotometric determination of ketoconazole in hexadecyltrimethylammonium bromide medium; Spectrophotometric study and detection of ketoconazole in the presence of beta – cyclodextrin, Sep. **2007**.
20. M.J. Rajabi and F. Jalali, Preparation of a novel iodide-selective electrode based on iodide-miconazole ion-pair and Extractive-spectrophotometric determination of fluconazole, June **2006**.

Journal Publications

1. A.Afkhami and F.Jalali Spectrophotometric Determination of Trace Amounts of Nitrite Ion Based on Its Catalytic Effect in the Reaction Between Thymol Blue and Bromate. *Microchem. J.*, 1997, 57, 224-230.
2. M.Shamsipur and F.Jalali Preparation of a Ketoconazole Ion-Selective Electrode and Its Application to Pharmaceutical Analysis. *Anal. Sciences*, 2000, 16, 549-552.
3. F.Jalali; M.Shamsipur and N.Alizadeh Conductance Study of the Thermodynamics of Micellization of HDPB in (water + cosolvent), *J. Chem. Thermodynamics*, 2000, 32, 755-765.
4. F.Jalali and M.Shamsipur Spectrophotometric Determination of Acidity Constants of Some Acid-Base Indicator Dyes in the Presence of Varying Concentrations of Hexadecylpyridinium Bromide. *Pak. J. Anal. Chem.*, 2001, 2, 1-5.
5. M.Shamsipur; F.Jalali and S.Haghgoo Preparation of a Cimetidine Ion-Selective Electrode and Its Application to Pharmaceutical Analysis., *J. Pharm. Biomedical Anal.*, 2002, 27, 867-872.
6. M.Shamsipur and F.Jalali Acid- Base Titrimetric Determination of Ketoconazole and Miconazole in Micellar Media.*Chem. Anal. (Warsaw)*, 2002, 47, 1-7.
7. M.Shamsipur and F.Jalali Preparation of a Clotrimazole Ion-Selective Electrode and Its application to Pharmaceutical Analysis., *Anal. Lett.*, 2002, 35, 53-64.
8. A.Moghimi; M.Ranjbar; H.Aghabozorg; F.Jalali; M.Shamsipur and Raj K.Chadha Synthesis, NMR Characterization, X-Ray Crystal Structure and Solution

Studies of Ni(II) Complexes of a Pyridine Containing Self-assembling System. *J. Chem. Research*, 2002, 1047-1065.

9. A. Moghimi; M. Ranjbar; H. Aghabozorg; F. Jalali; M. Shamsipur and Kaj K. Chadha Synthesis, Characterization and X-Ray Crystal Structure of Co(II) and La(III) Complexes of a Pyridine Containing Self-Assembling System and Solution Studies of the Co(II) Complex. , *Can. J. Chem.* 2002, 80, 1687-1696.

10. M. Carla Aragoni; M. Arca; F. Demartin; F. A. Devillanova; F. Isaia; A. Garau; V. Lippolis; F. Jalali; U. Papke; M. Shamsipur; L. Tei; A. Yari; and G. Verani Fluorimetric Chemosensors. Interaction of Toxic Heavy Metal Ions Pb(II), Cd(II), and Hg(II) with Novel Mixed-Donor Phenanthroline-Containing Macrocycles: Spectrofluorometric, Conductometric, and Crystallographic Studies. *Inorg. Chem.*, 2002, 41, 6623-6632.

11. M. Ranjbar; M. Taghaviipur; H. Aghabozorg; A. Moghimi; F. Jalali; and M. Shamsipur Synthesis, X-Ray Crystal Structure and Solution Studies of Cu(II) Complexes of a Pyridine Containing Self-Assembling System, *Polish J. Chem.*, 2002, 76, 785-794.

12. A. Moghimi; M. Ranjbar; H. Aghabozorg; F. Jalali; M. Shamsipur; G. P. A. Yap; and H. Rahbarnoochi A Novel Pyridine Containing Self-Assembling System: Synthesis, Characterization, X-Ray Crystal Structure, ¹³C Solid-Phase NMR and Solution Studies. *J. Mol. Struct.*, 2002, 605, 133-149.

13. F. Jalali; M. J. Rajabi; Gh. Bahrami, and M. Shamsipur Preparation of an Iodide-Selective Electrode based on Iodide-Miconazole Ion-Pair and Its Application to Pharmaceutical Analysis. *Anal. Sci.*, 2005, 21, 1533.

14. M. Shamsipur and F. Jalali Preparation of an Atenolol Ion-Selective Electrode and its Application to Pharmaceutical Analysis. *Anal. Lett.*, 2005, 38, 399.

15. M. Shamsipur; F.Jalali and S.Ershad Preparation of a Diclofenac Potentiometric Sensor and Its application to Pharmaceutical Analysis and to Drug Recovery from Biological Samples., *J. Pharm. Biomedical Anal.* 2005, 37, 943-947.
16. F.jalali, M. J. Rajabi Extractive-spectrophotometric determination of fluconazole by ion-pair complex formation with bromocresol green, *Chinese J. Chem.*, 2007, 25, 1330-1303.
17. F.jalali, E. Arkan, Gh. Bahrami Preparation of a gabapentin potentiometric sensor and its application to pharmaceutical analysis. *Sensors & actuators* 2007,127, 304-309.
18. F. Jalali; A. Afshoon, and M. Shamsipur Micellar – Enhanced Spectrofluorimetric Determination of Ketoconazole in Cetyltrimethylammonium medium. *Chem. Anal. (Warsaw)*, 1, 2007.
19. F. Jalali and A.R. Shahbazi pH-metric Study of Some Transition Metal Complexes of Gabapentin and Homocycloleucine *Polish J. Chem.*, 2008, 82, 2207–2213.
20. F. Jalali, A. Ashrafi, M. Shamsipur Conductance study of the complexation of amantadine, rimantadine, and aminocyclohexane with some macrocyclic compounds in acetonitrile solution, *J. Incl. Phenom. Macrocycl Chem.* 2008, 61, 77-82.
21. F. jalali, A. Shaeghi Rad Conductance study of thermodynamics of micellization of hexadecylpyridinium bromide in mixed solvents...*J. Iranian Chem. Soc.*, 2008, 5, 309-315.

22. F. Jalali, A. Afshoon Spectrofluorimetric study and detection of ketoconazole in beta-cyclodextrin solution *J. Fluorescence*, 2008, 18, 219-225.
23. F. Jalali, A. M. Ashrafi, D. Nematollahi Measurement of Dissolved Oxygen in Biological Fluids by Using a Modified Carbon Paste Electrode, *Electroanalysis*, 2009, 21(2), 201-205.
24. F. Jalali and R. Maghooli, Potentiometric Determination of Trace Amounts of Amantadine Using a Modified Carbon-Paste Electrode, *Anal. Sci.*, 2009, 25, 1227-1230.
25. F. Jalali; E. Ahmadi; M. Roushani; Gh. Bahrami; M. Shamsipur, Amperometric Determination of Cholesterol-Reducing Drug, Ezetimibe, Using Glassy Carbon Electrode Modified with Multiwalled Carbon Nanotubes and Sodium Dodecylsulfate *Analytical Letters*, 2010, 43: 1481–1490.
26. F. Jalali, A. Gerandaneh, Micellization of Cetyltrimethylammonium Bromide (CTAB) in Mixed Solvents and in the Presence of Potassium Bromide *Journal of Dispersion Science and Technology*, 2011, 32:659–666.
27. F. Jalali and H. Bahramipur Electrochemical Determination of Captopril Using Chlorpromazine as a Homogeneous Mediator *Int. J. Electrochem.*, 2011 doi:10.4061/2011/864358.
28. F. Jalali and H. Bahramipur Homogeneous Electrocatalytic Oxidation of Captopril by Iodide and Its Application to Pharmaceutical Analysis. *J. Iran. Chem. Soc.*, 9, 2012, 889–894.

29. H. Bahramipur and F. Jalali Sensitive determination of paracetamol using a graphene-modified carbon- paste electrode AJPP, 6(17), 1298-1305, 2012.
30. F. Jalali and P.S. Dorraji Electrochemical and Spectroscopic Studies of the Interaction Between the Neuroleptic Drug, Gabapentin, and DNA, J. Pharm. Biomed., 70, 2012, 598– 601.
31. P.S. Dorraji and F. Jalali, Investigation of the interaction of sertraline and calf-thymus DNA by spectroscopic methods, J. Braz. Chem. Soc., 24, No. 6, 939-945, 2013.
32. F. Jalali, L. Miri, M. Roushani Electrocatalytic determination of anti-hyperthyroid drug, methimazole, using a modified carbon-paste electrode, African J. Pharmacy and Pharmacology (AJPP), 7(6), 269-274, 2013.
33. Miri and F. Jalali Dispersive Liquid-Liquid Micro-Extraction as a Sample Preparation Method for Clonazepam Analysis in Water Samples and Pharmaceutical Preparations. JRPS, 2013, 2(2), 14-21.
34. F. Jalali, S. Riahi, D. Nematollahi A Kinetic Study on Electrooxidation of Propyl-Thiouracil: An Anti-Hyperthyroid Drug by Potassium Iodide. J. Electrochem. Soc., 160 (10) H710-H714 (2013).
35. Zali, F. Jalali, A. Es-haghi, M. Shamsipur Determination of free formaldehyde in vaccines and biological samples using solid-phase microextraction coupled to GC–MS . J. Separation Sci. 2013, 36, 3883–3888.

36. F. Jalali, P. S. Dorraji, H. Mahdiuni Binding of the neuroleptic drug, gabapentin, to bovin serum albumin: Insights from experimental and computational studies. *J. Lumin.* 148 (2014) 347–352S.
37. Ezzati , N., Jalali, F. Spectrofluorimetric study and determination of desipramine in the presence of beta cyclodextrin. *J. Anal. Chem.* 2014 Vol. 69, No. 4, pp. 367–370.
38. P S Dorraji, F. Jalali, Novel sensitive electrochemical sensor for simultaneous determination of epinephrine and uric acid by using a nanocomposite of MWCNTs–chitosan and gold nanoparticles attached to thioglycolic acid. *Sens. Actuat. B: Chemical*, 200, 2014, 251–258.
39. F. Jalali, Z. Hasanvand, P.S. Dorraji, Voltammetric Determination of Gabapentin by a Carbon Ceramic Electrode modified with Multiwalled Carbon Nanotubes and Nickel - Catechol complex. *J. Braz. Chem. Soc.* 2014, 25, 1537-1544.
40. Z. Hatami, F. Jalali, Voltammetric Determination of Immunosuppressive Agent, Azathioprine, by Using a Graphene-Chitosan Modified- Glassy Carbon Electrode. *Russ. J. Electrochem.*, 2015, 51, 70-76.
41. F. Jalali, P.S. Dorraji, Interaction of anthelmintic drug (thiabendazole) with DNA: Spectroscopic and Molecular modeling studies, *Arab. J. Chem.*, 2014, In Press
42. P.S. Dorraji, F. Jalali Sensitive amperometric determination of methimazole based on the electrocatalytic effect of rutin / multi-walled carbon nanotubes film. *Bioelectrochem.*, 2015, 101, 66-74.

43. F. Jalali, S. Ryahi Surface confined amantadine-cyclodextrin inclusion complex: Voltammetric study and application. *J. Inclus. Phenom.*, 2015, 81, 153-160.
44. S. Taheri, F. Jalali, N. Fattahi, G. Bahrami, Sensitive determination of atorvastatin in human plasma by dispersive liquid-liquid microextraction and solidification of floating organic drop (DLLME-SFO) followed by high performance liquid chromatography. *J. Sep. Sci.*, 2015, 38, 309-315.
45. F. Jalali and S. Ranjbar, Electrocatalytic oxidation of captopril using a carbon paste electrode modified with copper-cobalt hexacyanoferrate., *Russ. J. Electrochem.*, 2014, 50 (5), 482-489.
46. F. Jalali and Z. Hatami, Fast electrocatalytic determination of methimazole at an activated glassy carbon electrode, *Iran. J. Pharmaceut. Res.*, 2014, Accepted.
47. F. Jalali, P.S. Dorraji, Coupled spectral and electrochemical and molecular docking evaluation of anti-hyperthyroid drug, methimazole with DNA, *Canadian J. Chem.*, 2015, Accepted.
48. P.S. Dorraji, F. Jalali, A new nanocomposite of poly (melamine) and electrochemically reduced graphene oxide decorated with Cu nanoparticles: application to simultaneous determination of hydroquinone and catechol. *J. Electrochem. Soc.*, 2015, 162:B237-B244.
49. S. Zali, F. Jalali, A. Es-haghi, M. Shamsipur, Electrospun nanostructured polystyrene as a new coating material for solid-phase microextraction: application to separation of multipesticides from honey samples. *J. Chromatogr. B*, 2015, 1002, 387-393.

50. S. Taheri, F. Jalali, N. Fattahi, R. Jalili, Gh. Bahrami, Sensitive determination of methadone in human serum and urine samples by dispersive liquid-liquid microextraction based on the solidification of a floating organic droplet followed by HPLC-UV. *J. Sep. Sci.*, 2015, 38, 3545-3551.
51. F. Jalali and G. Rasaei, Electrochemical, spectroscopic, and theoretical studies on the interaction between azathioprine and DNA. *Int. J. Biol. Macromol.* 2015, 81, 427-434.
52. P.S. Dorraji, F. Jalali. Differential pulse voltammetric determination of nanomolar concentrations of antiviral drug acyclovir at polymer film modified glassy carbon electrode. *Mater. Sci. Eng. C*, 2016, 61, 858-864.
53. M. Ardeshtari, F. Jalali. Highly selective electrode for potentiometric analysis of methadone in biological fluids and pharmaceutical formulations. *Mater. Sci. Eng. C*, 2016, 63, 30-36.
54. E. Afshar, F. Jalali. Sensitive simultaneous determination of paracetamol and diclofenac based on Au nanoparticles functionalized graphene/poly (L-arginine) glassy carbon electrode. *J. Chil. Chem. Soc.* 2016, 63, 30–36.
55. F. Jalali and M. Ardeshtari. Application of carbon nanotubes-ionic liquid hybrid in a sensitive atorvastatin ion-selective electrode. *Mater. Sci. Eng. C*, 2016, 69, 276–282.
56. S. Zali, Fahimeh Jalali, Ali Es-haghi, Mojtaba Shamsipur, New nanostructure of polydimethylsiloxane coating as a solid-phase microextraction fiber: Application to analysis of BTEX in aquatic environmental samples, *Journal of Chromatography B*, 2016, 1033, 287–295.

57. P.S. Dorraji, F. Jalali Electrochemical fabrication of a novel ZnO /cysteic acid nanocomposite modified electrode and its application to simultaneous determination of sunset yellow and tartrazine. *Food Chem*, 2017, 227, 73-77 Press.
58. F. jalali, Z. Hassanvand and A. Barati. Mesalazine electrochemical sensor based on a nanocomposite of carbon dots, hexadecyltrimethylammonium bromide and chitosan. *J. Anal. Chem* In Press.
59. Z. Hassanvand and F. Jalali Electrocatalytic Determination of Glutathione Using Transition Metal Hexacyanoferrates (MHCs) of Copper and Cobalt Electrodeposited on Graphene Oxide Nanosheets. *J Anal. Bioanal. Res.*, 5(1) 2018.
60. Z. Hassanvand and F. Jalali, Simultaneous determination of L-DOPA, L-tyrosine and uric acid by cysteic acid - modified glassy carbon electrode. *J Material. Sci. Eng. C*, 2019, 496-502.
61. Z. Hassanvand and F. Jalali Gold Nanoparticles/Cysteic Acid Modified Electrode for Simultaneous Electrochemical Determination of Tramadol and Paracetamol. *Anal. Bioanal. Che. Res.*, 6, 2019, 393-404.
62. Z. Hatami, F. Jalali, M. A. Tabrizi, M. Shamsipur Application of metal-organic framework as redox probe in an electrochemical aptasensor for sensitive detection of MUC1. *Biosens. Bioelectron.*, 2019, 141, 111433
63. Zahra Hatami, Elham Ragheb, Fahimeh Jalali, Mahmoud A. Tabrizi, Mojtaba Shamsipur, Zinc oxide-gold nanocomposite as a proper platform for label-free DNA biosensor, *Bioelectrochemistry*, 2020, 133, 107458.

64. Parisa Naderi and Fahimeh Jalali, Poly-L-serine/AuNPs/MWCNTs as a Platform for Sensitive Voltammetric Determination of Progesterone. *J. Electrochem. Soc.*, 2020, 167, 027524.
65. Sara Zali, Ali Es-haghi, Mojtaba Shamsipur, Fahimeh Jalali, Electrospun nanofibers as a new solid phase microextraction coating for determination of volatile organic impurities in biological products 2020, 1153, 122279.
66. Mitra Soltani & Fahimeh Jalali, Simultaneous voltammetric determination of nitrophenol isomers based on a modified electrode by silver nanowires and poly-L-arginine. *Inter. J. Environ. Anal. Chem.*, 2021, 101, 2115-2127.
67. Carbon Nanodots in Electrochemical Sensors and Biosensors: A Review Z Hassanvand, F Jalali M Nazari F Parnianchi Carlo Santoro, *ChemElectroChem*, 2021, 8, 15-35.
68. Elham Ragheb, Mojtaba Shamsipur, Fahimeh Jalali, Marzieh Sadeghi, Nasrin Babajani, Naser Mafakheri. Magnetic solid-phase extraction using metal–organic framework-based biosorbent followed by ligandless deep-eutectic solvent-ultrasounds-assisted dispersive liquid–liquid microextraction (DES-USA-DLLME) for preconcentration of mercury (II). *Microchemical Journal*, 2021, 166, 106209.
69. Sara Sheikhi, F. Jalali, Remarkable electrocatalytic activity of Ni-nanoparticles on MOF-derived ZrO₂--porous carbon/reduced graphene oxide towards methanol oxidation. *International J Hydrogen Energy*, 2021, 46, 10723-10738.
70. Sara Sheikhi , Fahimeh Jalali, Zr-MOF@Polyaniline as an efficient platform for nickel deposition: Application to methanol electro-oxidation. *Fuel*, 2021, 296, 120677.

71. Sara Sheikhi , Fahimeh Jalali, Hierarchical NiCo₂O₄/CuO-C nanocomposite derived from copper-based metal organic framework and Ni/Co hydroxides: Excellent electrocatalytic activity towards methanol oxidation. *Journal of Alloys and Compounds* 907 (2022) 164510.
72. Elham Ragheb , Mojtaba Shamsipur , Fahimeh Jalali, Farimah Mousavi, Modified magnetic-metal organic framework as a green and efficient adsorbent for removal of heavy metals, *Journal of Environmental Chemical Engineering* 10 (2022) 107297.
73. Rahman Hallaj, Mahsa Mottaghi, Zhaleh Ghafari, Fahimeh Jalali, Magnetically induced catalytic electrooxidation of As(III) on GC modified Fe@Cu-BTC MOF nanoparticles: Application for determination of As(III). *Surfaces and Interfaces*, 30, (2022) 101946.
74. Yeganeh Abbasi, Fahimeh Jalali, Sara Sheikhi, Preparation of nickel/copper sulfides from metal-organic frameworks. Applications to energy storage in a symmetric supercapacitor and electrocatalytic methanol oxidation. *Journal of Alloys and Compounds* Volume 938, 25 March 2023, 168450

Conference papers

1. H. Cheraghi, S. Sheikhi, F. Jalali: Preparation of new electrochemical sensor for individual and simultaneous.... 27th Iranian seminar of analytical chemistry, 23-25 |Aug 2022 (1-3 Shahrivar 1401), Zanzan University.
2. Y. Abbasi, F. Jalali, S. Sheikhi, A novel electrode for high capacitance supercapacitor....27th Iranian seminar of analytical chemistry, 23-25 |Aug 2022 (1-3 Shahrivar 1401), Zanzan University.
3. P.S. Dorraji, F. Jalali Sensitive amperometric determination of methimazole based on the electrocatalytic effect of rutin / multi-walled carbon nanotubes film. 11th Iranian Electrochemistry Seminar. Guilan-Rashat. 18-20 Shahrivar 1393(2014).
4. F. Jalali and Z. Hatami, Fast electrocatalytic determination of methimazole at an activated glassy carbon electrode. 20th Iranian Seminar of Analytical Chemistry. Isfahan university of Technology – Isfahan, 6-8 Esfand 1392 (2014).
5. F. Jalali and Z. Hatami. Simple, rapid and green one-step strategy to synthesis of graphene/chitosan hybrid as solid-phase extraction for square-wave voltammetric detection of Azathioprine. 20th Iranian Seminar of Analytical Chemistry. Isfahan university of Technology – Isfahan, 6-8 Esfand 1392 (2014).
6. F. Jalali and Z. hassanvand. Voltammetric Determination of Gabapentin with a Ni-Catechol Complex Modified Multiwalled Carbon-Nanotubes Carbon Ceramic Electrode. 20th Iranian Seminar of Analytical Chemistry. Isfahan university of Technology – Isfahan, 6-8 Esfand 1392 (2014).
7. F. Jalali and Z. hassanvand. Electrochemical sensor for Amantadine hydrochloride based on a competitive host–guest complexation. 20th Iranian Seminar of Analytical Chemistry. Isfahan university of Technology – Isfahan, 6-8 Esfand 1392 (2014).
8. S. Zali, A. Eshaghi, F. Jalali, M. Shamsipur Application of a sol-gel based solid-phase microextraction fiber for gas-chromatographic-mass spectrometry determination of free formaldehyde in DT vaccines and diphtheria-tetanus antigen, 19th Iranian Seminar of Analytical Chemistry, Feb 2013, Ferdowsi University, Mashad, Iran.

9. F. Jalali and S. Ryahi Electrochemical study of the catalytic oxidation of propylthiouracil by iodide 19th Iranian Seminar of Analytical Chemistry, Feb 2013, Ferdowsi University, Mashad, Iran.
10. F. Jalali and P.S. Dorraji Electrochemical evaluation of the interaction of methimazole, antithyroid drug, with DNA and its analytical applications, 19th Iranian Seminar of Analytical Chemistry, Feb 2013, Ferdowsi University, Mashad, Iran.
11. F. Jalali and P.S. Dorraji Electrochemical evaluation of gabapentin-DNA interaction, 10th Biennial seminar of electrochemistry, Jul. 2012, Razi University, Kermanshah, Iran
12. F. Jalali and R. Maghooli Preparation of a carbon paste electrode modified with a Ni complex and application to the electrocatalytic determination of tryptophan, 10th Biennial seminar of electrochemistry, Jul. 2012, Razi University, Kermanshah, Iran.
13. F. Jalali and H. Bahramipur Sensitive determination of paracetamol using a graphene modified carbon paste electrode 10th Biennial seminar of electrochemistry, Jul. 2012, Razi University, Kermanshah, Iran.
14. F. Jalali and S. Ranjbar, Electrocatalytic oxidation of L_cysteine at carbon paste electrode in presence of chlorpromazine as a mediator 15th Chemistry Congress, 2011, Bu-Ali Sina University, Hamadan, Iran.
15. F. jalali and L. Miri Voltammetric Determination Of Methimazole Using an Oxovanadium(IV) Schiff Base Complex Modified Carbon-Paste Electrode 15th Chemistry Congress, 2011, Bu-Ali Sina University, Hamadan, Iran.
16. F. Jalali and H. Bahramipur Electrocatalytic Oxidation of Captopril on Glassy Carbon Electrode Using Chlorpromazine as a Homogeneous Mediator 15th Chemistry Congress, 2011, Bu-Ali Sina University, Hamadan, Iran.
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