



## EMPLOYMENT

Tayyebeh Madrakian  
Bu-Ali Sina University  
Faculty of Chemistry  
Department of: Analytical Chemistry  
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## EDUCATION

	<u>Year</u>	<u>University</u>
Ph.D	2000	Razi University, Kermanshah, Iran
M.Sc	1996	Bu- Ali Sina University
B.Sc.	1989	Shiraz University

## PROFESSIONAL MEMBERSHIPS

Iranian Chemical Society  
Editorial Board Nanochemistry Research

### Field of Interest in Research:

- Environmental Chemistry
- New kinetic methods for the determination of trace amounts of inorganic and organic species.
- Solid phase extraction.
- Thermodynamic and Kinetic Studies of Complexation of Macrocyclic Ligands with Metal Ions in Nonaqueous and Mixed Solvents

- Development of new preconcentration Methods
- Synthesis of new nanoadsorbents and nanocarriers for determination of pollutants and drug delivery

## TEACHING

### I) Undergraduate:

- General Chemistry I & II
- Analytical Chemistry I & II
- Analytical Chemistry I Lab
- Instrumental Anal.
- Instrumental Anal. Lab

### II) Graduate:

- Chemical and Physical Separation Methods
- Advanced Analytical Chemistry

## Students Graduated:

### (i) M. Sc. Degree:

1. A. Esmaili, Part I: Kinetic-spectrophotometric determination of trace quantities of thiocyanate based on its Landolt effect on the reaction of bromate with hydrochloric acid. Part II: Spectrophotometric determination of bismuth in water samples after preconcentration of its thiourea-bromide ternary complex on activated carbon, 2003
2. M. Torabbeigi, Study of Charge transfer Complexes of  $ICl_3$  with some ligands in different nonaqueous solvents, 2004

3. M. Borazjani, The spectrophotometric determination of aluminium and beryllium by xylenol orange using partial least squares method and simultaneous determination of levodopa and carbidopa using derivative spectrophotometry, 2005
4. M. Solgi, Application of 2,4,6-trimorpholino-1,3,5-triazine supported on silica gel for preconcentration of heavy metal cations and their determination by AAS, 2005
5. M. Mohammadnejad, The spectrophotometric Determination of catecholamines based on their oxidation reaction and simultaneous spectrophotometric determination of levodopa and carbidopa using mean centering of ratio spectra and H-point standard addition methods, 2005
6. R. Moein, Simultaneous determination of some cations by partial least squares and mean centering of ratio profile methods based on their complexes with some indicators, 2006
7. A. Mousavi, Spectrophotometric determination of trace amount of uranium after cloud point extraction and solid phase extraction, 2006
8. F. Ghazizadeh, Determination of trace amounts of molybdenum(VI) and tin (VI) after preconcentration with cloud point extraction, 2008
9. F. Abolghazi ,Determination of trace amount of some transition metals after solid phase extraction using a synthetic ligand, 2008
10. F. Hojati, Spectrophotometric study of morpholine and 2,4,6-tris(1-morpholino)-1,3,5-triazine with some electron acceptor species in nanoaqueous solvents, 2009

11. R. Siri, Spectrophotometric determination of trace amounts of iron(III), vanadium(V), lead(II) and molybdenum(VI) in real samples after cloud point extraction, 2009
12. Sara Heidari, Spectrophotometric study of charge transfer complexes formation of  $I_2$  and  $ICl_3$  with some synthetic ligands in nonaqueous solvents, 2009
13. S. Maleki, Kinetic-spectrophotometric determination of selenium in micellar media and study of effect of surfactants on the reaction of sulfide with resazurin, 2010
14. Mohammad Rahimi, Spectrophotometric determination of oxymetholone drug and uranium ion after removal and preconcentration using maghemite nanoparticles, 2011
15. Mazaher Ahmadi, Iodine and lead removal from real samples and spectrophotometric determination of some compounds containing amino groups using modified magnetic nanoparticles, 2011
16. Marzieh Khanlari Danesh, Application of maghemite nanoparticles ( $\gamma-Fe_2O_3$ ) as an adsorbent for removal and preconcentration of 4-nitrocatechol and Iron(II), 2011
17. Hedyeh Mahmood Kashani, Solid phase extraction of cationic and anionic dyes from water samples using different nanoparticles and determination of tramadol after preconcentration on magnetic nanoparticles, 2012
18. Nahid Rezvani jalal, Application of modified carbon nanotubes for removal and determination of trace amount of organic and inorganic pollutants, 2012
19. Borhan Zadpuor, Removal of heavy metals from industrial wastewaters using maghemite nanoparticles modified with new synthetic polymers, 2013

20. Fariba Fazl, Solid phase extraction of codeine using molecularly polymer coated magnetic nanoparticles and investigation scattering light properties of some opiate drugs,2014
21. Bahare Zadpoor, Removal, preconcentration and determination ,some of  $\beta$ -lactam drugs using modified carbon nanotubes with suitable agents and simultaneous determination of drugs amoxicillin and cefixime by chemometric methods and studies spectrophotometry,2014
22. R. Haryani, Synthesis of  $TiO_2$ @maghemite nanoparticles for removal of dyes from water samples and determination of venlafaxine drug assisted by modified nanoparticles with electrochemical and spectrofluorimetric methods, 2014
23. Hojjat Ghasemi, Synthesis of graphene nanocomposites and multi-wall carbon nano tubes and using as electrochemical sensor for determination of terazosin and capecitabine, 2015
24. Maryam Ghadiri, Determination of some heavy metal ions using modified quantum dots with organic and inorganic ligands in water samples,2016
25. Mahdi Moradi, Design and construction of an electrochemical sensor composed of carbon paste electrode modified with  $Ni_x-Zn_{1-x}-Fe_2O_4$  nanocomposite and ion imprinted polymer for determination of molybdenum in water samples, 2016

*(i) Ph.D Degree:*

1. Masoumeh Mohammadnejad, Spectrofluorimetric and spectrophotometric determination of some metal ions and drug compounds and analysis of multi-component mixtures using chemometric methods,2011
2. Habibollah Bagheri, Application of nanomaterials modified electrodes to study of the electrochemical behavior of phytohemagglutinin and

- investigation of the interaction of albumin and hemoglobin with several ions and drugs using spectrophotometric and spectrofluorimetric methods, 2014
3. Mohammad Soleimani, Study and simultaneous determination of drug systems in biological environments by spectroscopic and electrochemical techniques using chemometric methods, 2015

### **PUBLICATIONS and PRESENTATIONS**

151. Mazaher Ahmadi, **Tayyebeh Madrakian**, Fariba Fazl, Abbas Afkhami, “Determination of D-phenylglycine in the presence of its L-enantiomer using a turn-on fluorescent nano-chemosensor” *Talanta*, 2016
150. **Tayyebeh Madrakian**, Sakineh Alizadeh, Morteza Bahram, Abbas Afkhami, “A novel electrochemical sensor based on magneto LDH / Fe<sub>3</sub>O<sub>4</sub> nanoparticles @ Glassy carbon electrode for voltammetric determination of tramadol in real Samples”. *Ionics*, DOI no. 10.1007/s11581-016-1871-2
149. **Tayyebeh Madrakian**, Mazaher Ahmadi, Maryam Ghadiri, Abbas Afkhami “Application of cysteamine functionalized CdS hollow nanospheres in determination of Cd(II) and Pb(II) in the presence of each other by resonance light scattering technique”, *Journal of Environmental Chemical Engineering* 4 (2016) 3484–3491
148. Tayyebeh Madrakian, Khadijeh Dinmohammadi Asl, Mazaher Ahmadi and Abbas Afkhami, Fe<sub>3</sub>O<sub>4</sub>@Pt/MWCNT/carbon paste electrode for determination of doxorubicin anticancer drug in human urine sample. *RSC Adv*, 2016, 6, 72803–72809.

147. Abbas Afkhami Fatemeh Gomar, Tayyebeh Madrakian, "CoFe<sub>2</sub>O<sub>4</sub> nanoparticles modified carbon paste electrode for simultaneous detection of oxycodone and codeine in human plasma and urine", *Sensors and Actuators B* 233 (2016) 263–271
146. Abbas Afkhami, Tayyebeh Madrakian, Ghaedi H. Morteza Soltani-Shahrivar Construction of modified carbon paste electrode for highly sensitive simultaneous electrochemical determination of trace amounts of copper (II) and cadmium (II) , *Electroanalysis* 2016, 28, 296 – 303
145. Madrakian, T., Alizadeh, S., Karamian, R., Asadbegy, M., Bahram, M., Soleimani, M.J. Green synthesis of silver nanoparticles using lactose sugar and evaluation of their antimicrobial activity, *Der Pharma Chemica*, Volume 7, Issue 10, 2015, Pages 442-452
144. Tayyebeh Madrakian, Somayeh Maleki, Mozghan Heidari, Abbas Afkhami." An electrochemical sensor for rizatriptan benzoate determination using Fe<sub>3</sub>O<sub>4</sub> nanoparticle/multiwall carbon nanotube-modified glassy carbon electrode in real samples", *Materials Science and Engineering C* 63 (2016) 637–643.
143. Tayyebeh Madrakian, Hojjat Ghasemi, Esmaeel Haghshenas, Abbas Afkhami, "Preparation of ZnO nanoparticles/multiwalled carbon nanotubes/carbon paste electrode as a sensitive tool for capecitabine determination in real samples". *RSC Adv.* , 2016, 6 , 33851–33856
142. Tayyebeh Madrakian, Somayeh Maleki, Abbas Afkhami Application of a sensitive nanocomposite-based electrochemical sensor for voltammetric

determination of dicyclomine hydrochloride in real samples, J IRAN CHEM SOC, DOI 10.1007/s13738-016-0899-6

141. Tayyebeh Madrakian, Hojjat Ghasemi, Abbas Afkhami, Esmaeel Haghshenas," ZnO/rGO nanocomposite/carbon paste electrode for determination of terazosin in human serum sample" RSC Advances 2016, 6 , 2552–2558

140. Abbas Afkhami, Tayyebeh Madrakian, Morteza Soltani-Shahrivar, Mazaher Ahmadi, and Hamed Ghaedi "Selective and Sensitive Electrochemical Determination of Trace Amounts of Mercury Ion in Some Real Samples Using an Ion Imprinted Polymer Nano-Modifier" Journal of The Electrochemical Society, 163 (3) B1-B8 (2016)

139. Tayyebeh Madrakian, • Reza Haryani, • Mazaher Ahmadi, • Abbas Afkhami "A sensitive electrochemical sensor for rapid and selective determination of venlafaxine in biological fluids using carbon paste electrode modified with molecularly imprinted polymers coated magnetite nanoparticles" J IRAN CHEM SOC (2016) 13:243–251

138. Fariba Fazl, Mazaher Ahmadi, Tayyebeh Madrakian, Abbas Afkhami, Effect of morphine, oxycodone and thebaine on resonance light scattering properties of human serum albumin: Investigation possibility of morphine determination in the presence of the two other drugs, Sensors and Actuators B 223 (2016) 379–383

137. Tayyebeh Madrakian, Fariba Fazl, Mazaher Ahmadi and Abbas Afkhami, Efficient solid phase extraction of codeine from human urine samples using a



novel magnetic molecularly imprinted nanoadsorbent and its spectrofluorometric determination, *New J. Chem.*, Volume 40, Issue 1, 2016, Pages 122-129

136. Abbas Afkhami, Atousa Bahiraei, Tayyebeh Madrakian, "Gold nanoparticle/multi-walled carbon nanotube modified glassy carbon electrode as a sensitive voltammetric sensor for the determination of diclofenac sodium", *Materials Science and Engineering C* 59 (2016) 168–176

135. Mazaher Ahmadi, Tayyebeh Madrakian, Abbas Afkhami, Solid phase extraction of amoxicillin using dibenzo-18-crown-6 modified magnetic-multiwalled carbon nanotubes prior to its spectrophotometric determination, *Talanta* 148 (2016) 122–128

134. Ghaedi, H., Afkhami, A., Madrakian, T., Soltani-Felehgari, F. "Construction of novel sensitive electrochemical sensor for electro-oxidation and determination of citalopram based on zinc oxide nanoparticles and multi-walled carbon nanotubes" *Materials Science and Engineering C*, Volume 59, 1 February 2016, Pages 847-854

133. Haghshenas, E., Madrakian, T., Afkhami, A, Electrochemically oxidized multiwalled carbon nanotube/glassy carbon electrode as a probe for simultaneous determination of dopamine and doxorubicin in biological samples, *Anal Bioanal Chem* (2016) 408:2577 – 2586.

132. Abbas Afkhami, Shadieh Sayari, Razieh Moosavi, Tayyebeh Madrakian, "Magnetic nickel zinc ferrite nanocomposite as an efficient adsorbent for the removal of organic dyes from aqueous solutions" *Journal of Industrial and Engineering Chemistry* 21 (2015) 920–924

131. Tayyebeh Madrakian, Borhan Zadpour, Abbas Afkhami, Mazaher Ahmadi”  
New synthetic mercaptoethylamino homopolymer-modified maghemite  
nanoparticles for effective removal of some heavy metal ions from aqueous  
solution” *Journal of Industrial and Engineering Chemistry* 21 (2015) 1160–1166.
130. Abbas Afkhami, Ali Shirzadmehr, Tayyebeh Madrakian, Hasan Bagheri,  
“New nano-composite potentiometric sensor composed of graphene nanosheets /  
Thionine / molecular wire for nanomolar detection of silver ion in various real  
samples” *Talanta* 131 (2015) 548–555
129. Tayyebeh Madrakian, Mazaher Ahmadi, Abbas Afkhami , “Solid phase  
extraction of doxorubicin using molecularly imprinted polymer coated magnetite  
nanospheres prior to its spectrofluorometric determination “*New J. Chem.*, 2015,  
39 , 163-171
128. Mazaher Ahmadi, Tayyebeh Madrakian, Abbas Afkhami “ Enantioselective  
solid phase extraction prior to spectrofluorometric determination: a procedure for  
the determination of naproxen enantiomers in the presence of each other”, *RSC  
Adv.* , 2015, 5 , 5450–5457
127. Tayyebeh Madrakian, Reza Haryani, Mazaher Ahmadi and Abbas Afkhami,  
“Spectrofluorometric determination of venlafaxine in biological samples after  
selective extraction on the superparamagnetic surface molecularly imprinted  
nanoparticles” *Anal. Methods* , 2015, 7 , 428–435
126. Tayyebeh Madrakian, Borhan Zadpour, Abbas Afkhami, Mazaher Ahmadi  
“spectrometry after preconcentration on an ion-imprinted polymer coated

selective extraction and sensitive determination of mercury (II) ions by flame atomic absorption maghemite nanoparticles, J IRAN CHEM SOC (2015) 12:1235–1243

125. Mazaher Ahmadi, Tayyebeh Madrakian, Abbas Afkhami, “Chiral magnetic nanospheres resonance light scattering properties studies for selective determination of naproxen and phenylglycine enantiomers”, Sensors and Actuators B 210 (2015) 439–445

124. Tayyebeh Madrakian, Mohammad Soleimani, Abbas Afkhami, “Electrochemical determination of fluvoxamine on mercury nanoparticle multi-walled carbon nanotube modified glassy carbon electrode” Sensors and Actuators B 210 (2015) 259–266

123. Raziieh Moosavi, Abbas Afkhami, Tayyebeh Madrakian, “A simple cyanide sensing probe based on Ag/Fe<sub>3</sub>O<sub>4</sub> nanoparticles” RSC Adv. , 2015, 5 , 15886–15891

122. Ali Shirzadmehr, Abbas Afkhami, Tayyebeh Madrakian, “A new nano-composite potentiometric sensor containing an Hg<sup>2+</sup>-ion imprinted polymer for the trace determination of mercury ions in different matrices” Journal of Molecular Liquids 204 (2015) 227–235

121. Abbas Afkhami, Shadieh Sayari, Farzaneh Soltani-Felehgari, Tayyebeh Madrakian, “Ni<sub>0.5</sub> Zn<sub>0.5</sub>Fe<sub>2</sub> O<sub>4</sub> nanocomposite modified carbon paste electrode for highly sensitive and selective simultaneous electrochemical determination of trace amounts of mercury (II) and cadmium (II)” J IRAN CHEM SOC (2015) 12:257–265

120. Tayyebeh Madrakian, Esmaeel Haghshenas, Mazaher Ahmadi, Abbas Afkhami, "Construction a magneto carbon paste electrode using synthesized molecularly imprinted magnetic nanospheres for selective and sensitive determination of mefenamic acid in some real samples" *Biosensors and Bioelectronics* 68 (2015) 712–718

119. Abbas Afkhami, Fatemeh Kafrashi, Mazaher Ahmadi and Tayyebeh Madrakian, A new chiral electrochemical sensor for the enantioselective recognition of naproxen enantiomers using L -cysteine self-assembled over gold nanoparticles on a gold electrode" *RSC Adv.*, 2015, 5, 58609- 58615

118. Tayyebeh Madrakian, Abbas Afkhami, Ehsan Vanaei and Mazaher Ahmadi. "Solid phase extraction and spectrofluorometric determination of leached bisphenol A from some polycarbonate products under simulated use conditions using surface molecularly imprinted magnetite nanospheres " *Anal. Methods* , 2015, 7 , 6299–6306

117. T. Madrakian, H. Bagheri, and A. Afkhami, "SPECTROFLUOROMETRIC AND MOLECULAR MODELING STUDIES ON BINDING OF NITRITE ION WITH BOVINE HEMOGLOBIN: EFFECT OF NITRITE ION ON AMINO ACID RESIDUES", *Journal of Applied Spectroscopy*, Vol. 82, No. 2, May, 2015 (Russian Original Vol. 82, No. 2, March–April, 2015) 322-328

116. T. Madrakian, M. Madadi-Shad and M. Soleimani, "Simultaneous Spectrophotometric Determination of Mycophenolate Mofetil and Its Active Metabolite in Human Plasma Using Chemometrics Methods", *Anal. Bioanal. Chem. Res.*, Vol. 2, No. 1, 42-51, June 2015

115. Esmaeel Haghshenas, Tayyebeh Madrakian, Abbas Afkhami, "A novel electrochemical sensor based on magneto Au nanoparticles/ carbon paste electrode for voltammetric determination of acetaminophen in real samples" *Materials Science and Engineering C* 57 (2015) 205–214
114. Habibollah Bagheri, Mazaher Ahmadi, Tayyebeh Madrakian, Abbas Afkhami, " Preconcentration and spectrofluorometric determination of 1 - tryptophan in the presence of d -tryptophan using a chiral magnetic nanoselector" *Sensors and Actuators B* 221 (2015) 681–687.
113. Abbas Afkhami, Samira Aghajani, Milad Mohseni, Tayyebeh Madrakian, "Effectiveness of Ni<sub>0.5</sub>Zn<sub>0.5</sub>Fe<sub>2</sub>O<sub>4</sub> for the removal and preconcentration of Cr(VI), Mo(VI), V(V) and W(VI) oxyanions from water and wastewater samples" *J IRAN CHEM SOC* (2015) 12:2007–2013
112. Tayyebeh Madrakian, Sakineh Alizadeh, Roya Karamian, Mostafa Asadbegy, Morteza Bahram, Mohammad Javad Soleimani, "Green synthesis of silver nanoparticles using lactose sugar and evaluation of their antimicrobial activity" *Der Pharma Chemica* 10/2015; 7(10).
111. Abbas Afkhami, Fatemeh Kafrashi, Tayyebeh Madrakian, "Electrochemical determination of levodopa in the presence of ascorbic acid by polyglycine/ZnO nanoparticles/multi-walled carbon nanotubes-modified carbon paste electrode" *Ionics* (2015) 21:2937–2947.
110. **Tayyebeh Madrakian**, Abbas Afkhami, Nahid Rezvani-jalal, Mazaher Ahmadi "Removal and preconcentration of lead(II), cadmium(II) and

chromium(III) ions from wastewater samples using surface functionalized magnetite nanoparticles”, J IRAN CHEM SOC (2014) 11:489–498

109. Abbas Afkhami, Farzaneh Soltani-Felehgari, **Tayyebeh Madrakian**, Hamed Ghaedi,” Surface decoration of multi-walled carbon nanotubes modified carbon paste electrode with gold nanoparticles for electro-oxidation and sensitive determination of nitrite”, *Biosensors and Bioelectronics* 51(2014)379–385.

108. **Tayyebeh Madrakian**, Abbas Afkhami, Reza Haryani and Mazaher Ahmadi, “Synthesis of  $\gamma$ -Fe<sub>2</sub>O<sub>3</sub>/TiO<sub>2</sub> nanocomposite and its application in removal of dyes from water samples by adsorption and degradation processes” *RSC Adv.*, 2014, 4, 44841-44841.

107. Abbas Afkhami, Hosein Khoshshafar, Hasan Bagheri, **Tayyebeh Madrakian**,” Construction of a carbon ionic liquid paste electrode based on multi-walled carbon nanotubes–synthesized Schiff base composite for trace electrochemical detection of cadmium” *Materials Science and Engineering: C, Volume 35,1 February 2014, Pages 8-14*

106. **Tayyebeh Madrakian**, Esmaeel Haghshenas, Abbas Afkhami “Simultaneous determination of tyrosine, acetaminophen and ascorbic acid using gold nanoparticles/multiwalled carbon nanotube/glassy carbon electrode by differential pulse voltammetric method”, *Sensors and Actuators B: Chemical* Volume 193, 31 March 2014, Pages 451–460

105. Abbas Afkhami, Hamed Ghaedi, **Tayyebeh Madrakian**, Davood Nematollahi, Banafsheh Mokhtari, ” Electro-oxidation and voltammetric determination of oxymetholone in the presence of mestanolone using glassy carbon electrode modified with carbon nanotubes” *Talanta, Volume 121, April 2014, Pages 1-8.*

104. Abbas Afkhami, Farzaneh Soltani-Felehgari, **Tayyeb Madrakian** "Highly sensitive and selective determination of thiocyanate using gold nanoparticles surface decorated multi-walled carbon nanotubes modified carbon paste electrode" *Sensors and Actuators B: Chemical* Volume 196, June 2014, Pages 467–474.
103. **Tayyeb Madrakian**, Sara Heidari, "Interaction of benzene-1,3-disulfonylamid-kriptofix [22] with iodine in chloroform and dichloromethane solutions" *Chinese Chemical Letters* 25 (2014) 1375–1378.
102. Abbas Afkhami, Farzaneh Soltani-Felehgari, **Tayyeb Madrakian**, "A sensitive electrochemical sensor for rapid determination of methadone in biological fluids using carbon paste electrode modified with gold nanofilm" *Talanta* 128 (2014) 203–210.
101. Abbas Afkhami, Hosein Khoshshafar, Hasan Bagheri, **Tayyeb Madrakian**, "Preparation of NiFe<sub>2</sub>O<sub>4</sub>/graphene nanocomposite and its application as a modifier for the fabrication of an electrochemical sensor for the simultaneous determination of tramadol and acetaminophen" *Analytica Chimica Acta*, Volume 831, 11 June 2014, Pages 50-59
100. **Tayyeb Madrakian**, Habibollah Bagheri, Abbas Afkhami, and Abdolkarim Chehregani Rad, "Direct Electrochemical Reaction of Phytohemagglutinin Adsorbed at the Multi-Walled Carbon Nanotubes Modified Glassy Carbon Electrode" *Journal of The Electrochemical Society*, 161 (6) G37-G42 (2014)
99. Afkhami, A., Shirzadmehr, A., **Madrakian, T.** "Improvement in performance of a hyoscine butylbromide potentiometric sensor using a new

nanocomposite carbon paste: a comparison study with polymeric membrane sensor” *Ionics* (2014) 20:1145 – 1154

98. **Tayyebeh Madrakian**, Mohammad Soleimani, Abbas Afkhami, “Simultaneous determination of mycophenolate mofetil and its active metabolite, mycophenolic acid, by differential pulse voltammetry using multi-walled carbon nanotubes modified glassy carbon electrode” *Materials Science and Engineering: C* Volume 42, 1 September 2014, Pages 38–45

97. Abbas Afkhami, Hosein Khoshshafar, Hasan Keypour, Hamid Zeynali, **Tayyebeh Madrakian**, “Novel Sensor Fabrication for the Determination of Nanomolar Concentrations of  $Hg^{2+}$  in Some Foods and Water Samples Based on Multi-walled Carbon Nanotubes/Ionic Liquid and a New Schiff Base” *Food Anal. Methods* (2014) 7:1204 – 1212

96. **Tayyebeh Madrakian**, Habibollah Bagheri, Abbas Afkhami, Mohammad Soleimani,” Spectroscopic and molecular docking techniques study of the interaction between oxymetholone and human serum albumin” *Journal of Luminescence*, Volume 155, November 2014, Pages 218–225

95. Abbas Afkhamia, Hosein Khoshshafar, Hasan Bagheri, **Tayyebeh Madrakian**, “Facile simultaneous electrochemical determination of codeine and acetaminophen in pharmaceutical samples and biological fluids by graphene- $CoFe_2O_4$  nanocomposite modified carbon paste electrode” *Sensors and Actuators B* 203 (2014) 909–918

94. Habibollah Bagheri, **Tayyebeh Madrakian**, Abbas Afkhami, “Investigation of the interaction between nitrite ion and bovine serum albumin using



spectroscopic and molecular docking techniques” J. Chin. Chem. Soc. 2014, 61, 1223-1230

93. Abbas Afkhami, Ali Shirzadmehr, Tayyebeh Madrakian, Hasan Bagheri, “Improvement in the performance of a  $Pb^{2+}$  selective potentiometric sensor using modified core/shell  $SiO_2/Fe_3O_4$  nano-structure” Journal of Molecular Liquids 199 (2014) 108–114

92. Abbas Afkhami, Hosein Khoshshafar, **Tayyebeh Madrakian**, Ali Shirzadmehr “A new nano-composite electrode as a copper (II) selective potentiometric sensor” J IRAN CHEM SOC (2014) 11:1373–1380

91. Afkhami, A. Moosavi, R., **Madrakian, T.**, Keypour, H., Ramezani-Aktij, A., Mirzaei-Monsef, M “Construction and Application of an Electrochemical Sensor for Simultaneous Determination of Cd(II), Cu(II) and Hg(II) in Water and Foodstuff Samples” Electroanalysis Volume 26, Issue 4, April 2014, Pages 786-795.

90. Habibollah Bagheri, **Tayyebeh Madrakian**, Abbas Afkhami, “Determination of human albumin in serum and urine samples by constant-energy synchronous fluorescence method”, Luminescence 2015 ; 30: 576 – 582

89. Mazaher Ahmadi, **Tayyebeh Madrakian**, Abbas Afkhami, “Molecularly imprinted polymer coated magnetite nanoparticles as an efficient mefenamic acid resonance light scattering nanosensor” Analytica Chimica Acta 852 (2014) 250–256

88. **Tayyebeh Madrakian**, Abbas Afkhami, Mazaher Ahmadi, ‘Simple *in situ* functionalizing magnetite nanoparticles by reactive blue-19 and their application to the effective removal of  $Pb^{2+}$  ions from water samples “Chemosphere 90 (2013) 542–547.

87. Abbas Afkhami, Hamed Ghaedi, **Tayyebeh Madrakian**, Majid Rezaeivala, Highly sensitive simultaneous electrochemical determination of trace amounts of Pb(II) and Cd(II) using a carbon paste electrode modified with multi-walled carbon nanotubes and a newly synthesized Schiff base, *Electrochim. Acta* 89 (2013)377–386.
86. **Tayyebeh Madrakian**, Abbas Afkhami, Hediye Mahmood-Kashani, Mazaher Ahmadi,” Superparamagnetic surface molecularly imprinted nanoparticles for sensitive solid-phase extraction of tramadol from urine samples”, *Talanta* 105 (2013)255–261.
85. **Tayyebeh Madrakian**, Abbas Afkhami, Hediye Mahmood-Kashani, Mazaher Ahmadi, Adsorption of some cationic and anionic dyes on magnetite nanoparticles-modified activated carbon from aqueous solutions: equilibrium and kinetics study, *J IRAN CHEM SOC* (2013) 10:481–489
84. Abbas Afkhami, FarzanehSoltani-Felehgari, **Tayyebeh Madrakian**, Hamed Ghaedi, Majid Rezaeivala, “Fabrication and application of a new modified electrochemical sensor using nano-silica and a newly synthesized Schiff base for simultaneous determination of Cd<sup>2+</sup>, Cu<sup>2+</sup> and Hg<sup>2+</sup> ions in water and some foodstuff samples”, *Analytica Chimica Acta* 771 (2013) 21– 30
83. Abbas Afkhami, Farzaneh Soltani-Felehgari, **Tayyebeh Madrakian**,” Gold nanoparticles modified carbon paste electrode as an efficient electrochemical sensor for rapid and sensitive determination of cefixime in urine and pharmaceutical samples “*Electrochimica Acta* 103 (2013) 125– 133
82. Abbas Afkhami, Hamed Ghaedi, **Tayyebeh Madrakian**, Mazaher Ahmadi, Hedy Mahmood-Kashani, “Fabrication of a new electrochemical sensor based on a new nano-molecularly imprinted polymer for highly selective and sensitive

determination of tramadol in human urine samples” *Biosensors and Bioelectronics* 44 (2013) 34–40

81. **Tayyeb Madrakian**, Mazaher Ahmadi, Abbas Afkhami and Mohammad Soleimani, “Selective solid-phase extraction of naproxen drug from human urine samples using molecularly imprinted polymer-coated magnetic multi-walled carbon nanotubes prior to its spectrofluorometric determination” *Analyst*, 2013, 138, 4542-4549

80. **Tayyeb Madrakian**, Abbas Afkhami , Nahid Rezvanijalal, Mazaher Ahmadi “Kinetic and Thermodynamic Studies of the Adsorption of Several Anionic yes From Water Samples on Magnetite-Modified Multi-Walled Carbon Nanotubes”, *Separation Science and Technology*, 48: 2638–2648, 2013

79. **Madrakian, T**; Afkhami, A; Rahimi, M; Ahmadi, M; Soleimani, “Preconcentration and spectrophotometric determination of oxymetholone in the presence of its main metabolite (mestanolone) using modified maghemite nanoparticles in urine sample” ***Talanta* 115 (2013) 468–473**

78. Abbas Afkhami, Razieh Moosavi, and **Tayyeb Madrakian**,”Maghemite-Nanoparticles Enhanced Effects in Electrochemical Determination of Dipyridamole Utilizing Simultaneous Statistical Based Experimental Design Optimization” *Journal of The Electrochemical Society*, **160** (10) H775-H781 (2013).

77. **Madrakian, T.**, Afkhami, A., Rahimi, M., Removal, preconcentration and spectrophotometric determination of U(VI) from water samples using modified maghemite nanoparticles, *J Radioanal Nucl Chem* (2012) 292:597–602

76. Abbas Afkhami, **Tayyeb Madrakian**, Hamed Ghaedi, Construction of a chemically modified electrode for the selective determination of nitrite and

nitrate ions based on a new nanocomposite, *Electrochimica Acta*, 66(2012) , pp. 255-264.

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