

"بسمه تعالی"



اطلاعات شخصی:

نام: مهدی

نام خانوادگی: بقایری

تاریخ تولد: ۱۳۶۰

وضعیت تأهل: متاهل

میزان تحصیلات: دکتری تخصصی

تحصیلات:

کارشناسی شیمی کاربردی، دانشگاه تبریز، سال ۱۳۷۹

کارشناسی ارشد شیمی تجزیه، دانشگاه مازندران، سال ۱۳۸۳

دکتری تخصصی شیمی تجزیه (گرایش الکتروشیمی تجزیه‌ای)، دانشگاه مازندران، سال ۱۳۸۷

عنوان رساله در مقطع کارشناسی ارشد:

بررسی رفتار الکتروشیمیایی و کارایی الکتروود نیکل اصلاح شده با کمپلکس سالوفن، [فنیلن دی آمین (N و N-بیس سالیسیدین)]، در اکسایش متانول

عنوان رساله در مقطع دکتری:

اندازه گیری ولتامتری بعضی از ترکیبات بیولوژیکی گوگرد دار و کتکول آمین ها در سطح الکترودهای خمیر کربن و کربن شیشه ای اصلاح شده با برخی اصلاح گرهای آلی- فلزی، نانوذرات اکسید فلزی و نانو لوله های کربنی

فعالیت های پژوهشی انجام شده:

- ۱- همکاری با دانشگاه آرهوس کشور دانمارک در غالب فرصت مطالعاتی در زمینه توسعه و ساخت سنسورهای آنزیمی- دارویی (مهر-فروردین سال ۱۳۸۹)
- ۲- انجام پروژه تحقیقاتی در زمینه ساخت سنسور های دارویی در تشخیص بیماری های صرع و پارکینسون با همکاری ستاد توسعه زیست فناوری دانشگاه مازندران (۱۳۹۰-۱۳۸۹)
- ۳- انجام پروژه تحقیقاتی در زمینه ساخت سنسور های الکتروشیمیایی حساس به مواد مخدر با همکاری ستاد توسعه زیست فناوری دانشگاه مازندران (۱۳۹۰)

- ۴- کارشناس آزمایشگاه در سازمان انرژی اتمی ایران از سال ۱۳۸۴ تا ۱۳۸۶
- ۵- همکاری در انجام پروژه پیل سوختی سازمان انرژی اتمی ایران
- ۶- عضو گروه پیل سوختی سازمان انرژی اتمی ایران (۱۳۸۴ تا ۱۳۸۷)
- ۷- انجام پروژه تحقیقاتی در زمینه سنتز رنگدانه های معدنی شامل، فتالوسیانین های مس، آهن و کبالت در مقیاس آزمایشگاهی و صنعتی در دانشگاه تبریز
- ۸- همکاری با آزمایشگاه شیمی و بیوشیمی اداره آب و فاضلاب شهرستان سبزوار با تحقیق و بررسی در زمینه علل افزایش آلودگی منابع آب زیرزمینی شهرستان سبزوار
- ۹- همکاری در ترجمه دو کتاب تحت عناوین زیر
- Modern Analytical Chemistry
 - Electroanalytical Methods for Biological Materials

دستاوردهای پژوهشی:

- ۱- برنده جایزه مقاله برتر در ساخت سنسور الکتروشیمیایی حساس به ماده مخدر پتیدین از کنگره بین المللی کشف و آنالیز مواد مخدر (سالن همایش های بین المللی صدا و سیما، ۱۳۹۰).
- ۲- کسب عنوان مقاله برتر در ستاد نانوفناوری ریاست جمهوری در سال ۱۳۹۳ در زمینه ساخت سنسورهای الکتروشیمیایی حساس به هیدروژن پراکساید.

مقالات ارائه شده در کنفرانس های علمی:

1. Adsorptive cathodic stripping voltammetric measurements of trace tryptophane at the nano-structured film electrode, Ahmad Nozad-Golikand, **Mehdi Baghayeri**, Mehdi Asgari. *7th Biennial Electrochemistry Seminar of Iran, Aug. 28-30, 2007, Urmia University, Urmia, Iran.*
2. Electrocatalytic reduction of oxygen on glassy carbon electrode modified by Alizarin Red S in acidic medium, J.B. Raoof, A. Nozad-Golikand, **M. Baghayeri**. *15th Iranian Seminar of Analytical Chemistry, Feb. 27- March 1, 2007, Shiraz University, Shiraz, Iran.*
3. Electrocatalytic oxidation of methanol in alkaline conditions at the surface of salophen modified nickel electrode, A. Nozad-Golikand, J.B. Raoof, **M. Baghayeri**,

- L. Irannejad. *15th Iranian Seminar of Analytical Chemistry, Feb. 27- March 1, 2007, Shiraz University, Shiraz, Iran.*
4. Electrocatalytic oxidation of methanol on Ni (II)-N,N-bis(salicylidene) Phenylenediamine modified GC electrode, J.B. Raouf, R. Ojani, **M. Baghayeri**. *5th Electrochemical Seminar of Iran, May 7-8, 2009, Tarbiat Modaress University, Tehran, Iran.*
 5. Carbone paste electrode modified with ferrocene carbocxilic acid and nano-TiO₂ as sensitive voltammetric sensors for simultaneous detection of glutathione and tryptophan, J.B. Raouf, R. Ojani, **M. Baghayeri**. *8th Iranian Biennial Seminar of Electrochemistry, July 14-16, 2009, Department of Chemistry, University of Kurdistan, Sanandaj, Iran.*
 6. A graphite electrode modified by enzymatic reaction of laccase with dopamine for electrocatalysis of N-acetyl-l-cystein in presence of tryptophan, J.B. Raouf, R. Ojani, **M. Baghayeri**. *15th Iranian Chemistry Congress (ICC 2011), 4-6 September, Bu-Ali Sina University, Hamedan, Iran.*
 7. Simultaneous voltammetric determination of tyramine and paracetamol using carbon nanoparticles modified glassy carbon electrode, J.B. Raouf, M. Amiri-Aref, **M. Baghayeri**. *15th Iranian Chemistry Congress (ICC 2011), 4-6 September, Bu-Ali Sina University, Hamedan, Iran.*
 8. Simultaneous determination of tyramine, levodopa and uric acid with a new multi-walled carbon nanotube composite, J.B. Raouf, **M. Baghayeri**, R. Ojani, M. Amiri-Aref. *7th Annual Seminar of Electrochemistry of Iran, K.N. Toosi University of Technology, 9-10, November, 2011.*
 9. Simultaneous determination of 4-aminohippuric acid and uric acid at carbon nanotube modified glassy carbon electrode, J.B. Raouf, R. Ojani, F. Ahmadi, **M. Baghayeri**. *7th Annual Seminar of Electrochemistry of Iran, K.N. Toosi University of Technology, 9-10, November, 2011.*
 10. A novel sensor for simultaneous detection of ascorbic acid, epinephrine and uric acid based on new modified electrode with nano-metallic structure, J.B. Raouf, **M. Baghayeri**, R. Ojani. *7th Annual Seminar of Electrochemistry of Iran, K.N. Toosi University of Technology, 9-10, November, 2011.*
 11. Development of a novel voltammetric sensor for fast and sensitive detection of morphine based on multi-walled carbon nanotube/TiO₂ nano particle/nafion

composite film, *Congress on Detection and Analysis of ILLICIT DRUGS, 12-13 Jan., 2012, Tehran, Iran.*

12. Fabrication of a simple and rapid sensor for detection of methadone in real samples based on modification of a glassy carbon electrode with functionalized multiwalled carbon nanotube thin layer, J.B. Raoof, R. Ojani, M. Amiri-Aref, **M. Baghayeri**, M. hashemi. *Congress on Detection and Analysis of ILLICIT DRUGS, 12-13 Jan., 2012, Tehran, Iran.*

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14. Development of a novel voltammetric sensor for fast and sensitive detection of pethidine based on multi-walled carbon nanotube/nafion composite film: Application in addicts urine and serum samples analysis, **M. Baghayeri**, J. B. Raoof, M. Amiri-Aref. *The 6th National Congress on Addiction Biology, 20-22 Jun., 2012, Tehran University of Medical Sciences, Tehran, Iran.*

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16. A Novel Sensor for Simultaneous Determination of 4-Aminohippuric Acid, Epinephrine and Uric Acid Based on Carbon Paste Electrode Modified by Multi-Walled Carbon Nanotubes, J. B. Raoof, R. Ojani, **M. Baghayeri**, F. Ahmadi, *The 10th Iranian Biennial Electrochemistry Seminar, 17-19 July, 2012, Razi University, Kermanshah, Iran.*

17. Fabrication of a Nanoporous Pseudo-Multiwalled Carbon Nanotube Paste Electrode Modified by Ferrocen as a Novel Design for Simultaneous Determination of N-acetyl-l-cystein and Tryptophan, J. B. Raoof, **M. Baghayeri**, F. Ahmadi, *The 10th Iranian Biennial Electrochemistry Seminar, 17-19 July, 2012, Razi University, Kermanshah, Iran.*

18. A Voltammetric Sensor Based on Pt Nanoparticles for Simultaneous Determination of Phenobarbital and Acetaminophen, J. B. Raoof, **M. Baghayeri**, R.

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19. Electrochemistry and Electroanalysis of Hemoglobin at Glassy Carbon Electrodes Modified with Dendrimer-Encapsulated Fe-Ni Nanoparticles, **M. Baghayeri**, R. Zarghani, *20th Iranian Analytical Chemistry Conference, 25-27 February, 2014, Isfahan University of Technology, Isfahan, Iran.*

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21. Amperometric biosensor based on direct electrochemistry of hemoglobin in poly-allylamine@Fe₃O₄ film, **M. Baghayeri**, S. Farhadi, *11th Iranian Biennial Electrochemistry Seminar, 9-11 September, 2014, University of Guilan, Rasht, Iran.*

22. Synergistic effect of single-walled carbon nanotube decorated with silver nanoparticle for the estimation of glucose in real systems, **M. Baghayeri**, A. Motamedi far, *11th Iranian Biennial Electrochemistry Seminar, 9-11 September, 2014, University of Guilan, Rasht, Iran.*

23. Simultaneous determination of 4-aminohippuric acid and uric acid on a glassy carbon electrode modified with gold-platinum alloy nanoparticles/multiwall carbon nanotubes, **M. Baghayeri**, A. Motamedi far, *11th Iranian Biennial Electrochemistry Seminar, 9-11 September, 2014, University of Guilan, Rasht, Iran.*

مقالات چاپ شده در مجلات علمی:

2009

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2) Electrochemical reduction of dioxygen on alizarin modified glassy carbon electrode in acidic medium, A. N. Golikand, J.B. Raof, **M. Baghayeri**, M. Asgari, L.

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3) Simultaneous electrochemical determination of glutathione and tryptophan on a nano-TiO₂ / ferrocene carboxylic acid modified carbon paste electrode, J.B. Raoof, R. Ojani, **M. Baghayeri**, *Sensors and Actuators B: Chemical*, 143 (2009) 261-269. (ISI)

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6) Sensitive voltammetric determination of captopril using a Carbon Paste Electrode Modified with Nano-TiO₂/Ferrocene Carboxylic Acid, J. B. Raoof, R. Ojani, **M. Baghayeri**, *Chinese Journal of Catalysis*, Vol. 32, No. 11, (2011), 1685-1692. (ISI)

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8) Electrodeposition of quercetin at a multi-walled carbon nanotubes modified glassy carbon electrode as a novel and efficient voltammetric sensor for simultaneous determination of levodopa, uric acid and tyramine, J.B. Raoof, R. Ojani, M. Amiri-

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10) Fabrication of a fast, simple and sensitive voltammetric sensor for the simultaneous determination of 4-aminohippuric acid and uric acid using a functionalized multi-walled carbon nanotube modified glassy carbon electrode, J.B. Raoof, R. Ojani, **M. Baghayeri**, F. Ahmadi, *Anal. Methods*, 4 (2012) 1825-1832. (ISI)

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11) Fabrication of layer-by-layer deposited films containing carbon nanotubes and poly(malachite green) as a sensor for simultaneous determination of ascorbic acid, epinephrine and uric acid, J.B. Raoof, R. Ojani, **M. Baghayeri**, *Turkish Journal of Chemistry*, 37 (2013) 36-50. (ISI)

12) Determination of nifedipine using nanostructured electrochemical sensor based on simple synthesis of Ag nanoparticles at the surface of glassy carbon electrode: Application to the analysis of some real samples, **Mehdi Baghayeri**, Melika Namadchian, Hassan Karimi-Maleh, Hadi Beitollahi, *Journal of Electroanalytical Chemistry*, 697 (2013) 53-59. (ISI)

13) Electrocatalytic measurement of methionine concentration with a carbon nanotube paste electrode modified with benzoylferrocene, H. Beitollahi, A. Mohadesi, F. Ghorbani, H. Karimi Maleh, **M. Baghayeri**, R. Hosseinzadeh, *Chinese Journal of Catalysis* 34 (2013) 1333–1338. (ISI)

14) Fabrication of a nanostructured luteolin biosensor for simultaneous determination of levodopa in the presence of acetaminophen and tyramine: Application to the

analysis of some real samples, **M. Baghayeri**, M. Namadchian, *Electrochimica Acta* 108 (2013) 22–31. **(ISI)**

15) A fast and sensitive nanosensor based on MgO nanoparticle room-temperature ionic liquid carbon paste electrode for determination of methyl dopa in pharmaceutical and patient human urine samples, J. Vahedi, H. Karimi-Maleh, **M. Baghayeri**, A. L. Sanati, M. A. Khalilzadeh, M. Bahrami, *Ionics* 19 (2013) 1907–1914. **(ISI)**

16) Direct electrochemistry and electrocatalysis of hemoglobin-immobilized on biocompatible poly(styrene-alternative-maleic acid)/functionalized multi-wall carbon nanotubes blends, **M. Baghayeri**, E. Nazarzadeh Zare, M. Namadchian, *Sensors and Actuators B* 188 (2013) 227–234. **(ISI)**

17) One-Pot Synthesis of Sulfonamides and Sulfonyl Azides from Thiols using Chloramine-T, B. Maleki, S. Hemmati, R. Tayebee, S. Salemi, Y. Farokhzad, **M. Baghayeri**, F. Mohammadi Zonoz, E. Akbarzadeh, R. Moradi, A. Entezari, M. R. Abdi, S. Sedigh Ashrafi, F. Taimazi, M. Hashemie, *Helvetica Chimica Acta* 96 (2013) 2147-2151. **(ISI)**

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18) A simple hydrogen peroxide biosensor based on a novel electro-magnetic poly(p-phenylenediamine)@Fe₃O₄ nanocomposite, **M. Baghayeri**, E. Nazarzadeh Zare, M. Mansour Lakouraj, *Biosensors and Bioelectronics* 55 (2014) 259–265. **(ISI)**

19) Voltammetric determination of hydroxylamine in water samples using a 1-benzyl-4-ferrocenyl-1H-[1,2,3]-triazole/carbon nanotube-modified glassy carbon electrode, H. Beitollahi, S. Tajik, S.Z. Mohammadi, **M. Baghayeri**, *Ionics* 20 (2014) 571–579. **(ISI)**

20) Voltammetric sensor for simultaneous determination of ascorbic acid, acetaminophen, and tryptophan in pharmaceutical products, H. Beitollahi, A.

Mohadesi, M. Mostafavi, H. Karimi-Maleh, **M. Baghayeri**, A. Akbari, *Ionics* 20 (2014) 729–737. (ISI)

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22) Facile synthesis of PSMA-g-3ABA/MWCNTs nanocomposite as a substrate for hemoglobin immobilization: Application to catalysis of H₂O₂, **M. Baghayeri**, E. Nazarzadeh Zare, R. Hasanzadeh, *Materials Science and Engineering C* 39 (2014) 213–220. (ISI)

23) Novel superparamagnetic PFu@Fe₃O₄conductive nanocomposite as a suitable host for hemoglobin immobilization, **M. Baghayeri**, E. Nazarzadeh Zare, M.M. Lakouraj, *Sensors and Actuators B* 202 (2014) 1200–1208. (ISI)

24) Voltammetric behavior of tiopronin on carbon paste electrode modified with nanocrystalline Fe₅₀Ni₅₀ alloys, **M. Baghayeri**, B. Maleki, R. Zarghani *Materials Science and Engineering C* 44 (2014) 175–182. (ISI)

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26) Multi-walled carbon nanotubes decorated with palladium nanoparticles as a novel platform for electrocatalytic sensing applications, **M. Baghayeri**, H. Veisi, H. Veisi, B. Maleki, H. Karimi Maleh, H. Beitollahi, *RSC Advances*, 4 (2014) 49595–49604. (ISI)

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27) Electro-Magnetic Polyfuran/Fe₃O₄ Nanocomposite: Synthesis, Characterization, Antioxidant Activity, and Its Application as a Biosensor, E. Nazarzadeh Zare, M.M. Lakouraj, **M. Baghayeri**, International Journal of Polymeric Materials and Polymeric Biomaterials, 64 (2015) 175–183. (ISI)

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