

CRRICULUM VITAE

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Date of Birth: December 22, 1964
Place of Birth: Kazeroun, Fars Province, Iran
Marital Status: Single

EDUCATION

2002-2007 Received PhD in Biochemistry from University of Tehran, Tehran, Iran, May 2007.

1992-1994 Received M. Sc. in Analytical Chemistry from Ferdowsi University, Mashhad, Khorasan, Iran, April 1994. (Top Student)

1985-1990 Received B. Sc. in Pure Chemistry From Shiraz University, Shiraz, Fars, Iran, January 1990.

EXPERIENCE

1995 to date Lecturer in Chemistry at Persian Gulf University, Bushehr, Iran.

Teaching Experience:

General Chemistry, Analytical Chemistry, Instrumental Analysis, Biochemistry, Analytical Chemistry Lab., Environmental Chemistry for under-graduate students and Separation methods, Spectroscopy 1, Enzymology, Cellular biophysics, Biochemistry for graduate students.

۱۹۹۹-۲۰۰۱ Dean assistant of the faculty of Science.

۱۹۹۰-۱۹۹۱ Instructor in Chemistry Lab. at Islamic Azad University, Kazeroon, Fars,
Iran

PUBLICATIONS

Book

۱. R. Yousefi, S. Hashemnia, A.A. Moosavi-Movahedi, “ Conceptual Biochemistry”

بیوشیمی مفهومی، انتشارات دانشگاه تهران، زمستان ۱۳۸۸

Papers

۱. **S. Hashemnia** and F. Nourmohammad “Selective Determination of Dopamine in the Presence of Ascorbic Acid and Uric Acid at Neutral *pH* Using a Silver Nanoparticles-modified Carbon Paste Electrode” *Biomacromolecular Journal*, 1, 177-186 (2016).
۲. **S Hashemnia**, Z Mokhtari, J Tashkhourian and A A Moosavi-Movahedi “Effect of covalent attachment of neomycin on conformational and aggregation properties of catalase” *Indian journal of Biochemistry and Biophysics*, 52, 189-195 (2015).
۳. **S. Hashemnia** , M. Eskandari “Preparation and electrochemical characterization of an enzyme electrode based on catalase immobilized onto a multiwall carbon nanotube-Thionine film” *Journal of the Chinese Chemical Society*, 61, 903-909 (2014).
۴. **S. Hashemnia**, A.M. Mehranpour, Rezvani, J. Ameri Rad “Synthesis, electronic spectroscopy, electrochemistry and catalytic activity of a new Co (II) complex of 1,4,8,11-tetraaza[14]annulene derivative” *Synthetic Metals*, 187, 68-74 (2014).
۵. A. M. Mehranpour, **S. Hashemnia** , E. Bashiri “Synthesis of some bromomethyl- and (4- bromomethyl)phenyl- derivatives of 1, 4, 8, 11 tetraaza[14] annulene and their corresponding sulfanylmethylene- derivatives using 3-substituted trimethinium salts” *Journal of Heterocyclic Chemistry*, (2013) [accepted].
۶. Zahra Solati, Majid Hashemi, **Sedigheh Hashemnia**, Elahe Shahsevani, Zahra Karmand “Effect of coordination ability of axial ligands on the stability and

- catalytic activity of chloro(tetramesitylporphyrinato)manganese(III) and lifetime of Mn-oxointermediate” *Journal of Molecular Catalysis A*, 374– 375, 27– 31, (2013).
٧. A. M. Mehranpour, **S. Hashemnia**, F. Azamifar “Synthesis and Characterization of γ -Heteroaryl-substituted Pentamethine Cyanine Dyes with Carboxy or Methoxycarbonyl Substituents at the Two Heterocyclic End Groups” *journal of heterocyclic chemistry* (2012) [accepted].
٨. J. Tashkhourian , S. F. Nami Ana, **S. Hashemnia**, M. R. Hormozi-Nezhad “Construction of a modified carbon paste electrode based on TiO₂ nanoparticles for the determination of gallic acid” *Journal of solid state electrochemistry* 17, 157-165(2012).
٩. A. M. Mehranpour, **S. Hashemnia**, F. Azamifar “Synthesis of new malonaldehyde derivatives using 2-heteroaryl-substituted trimethinium salts” *Tetrahedron Letters* 54, 321–323, (2013).
١٠. A. M. Mehranpour, **S. Hashemnia** , E. Bashiri, “Synthesis of new dibenzo-tetraaza and dibenzo-dioxadiaza[14]annulene derivatives using 3-bromo-substituted vinamidinium salt” *Synthetic Communications*, 43, 1931-1938, (2012).
١١. A. M. Mehranpour, **S. Hashemnia**, J. Ameri Rad, “Synthesis of new metal-free 1,4,8,11-tetraaza, 14]annulene derivatives using 2-heteroaryl-substituted trimethinium salts” *journal of heterocyclic chemistry* 50, 821-827, (2011) .
١٢. Hassan Faridnouri, Hedayatollah Ghourchian ,and **Seddigheh Hashemnia**, “Direct electron transfer enhancement of covalently bound tyrosinase to glassy carbon via Woodward's reagent K” *Bioelectrochemistry* 89, 1-9, (2011).
١٣. **S. Hashemnia**, Sh. Khayat-zadeh, M. Hashemnia “Electrochemical detection of phenolic compounds using composite film of multiwall carbon nanotube/surfactant/tyrosinase on a carbon paste electrode” *Journal of Solid state Electrochemistry* 16, 473-479, (2012).

۱۴. **S. Hashemnia**, Sh. Khayatzadeh, A. A. Moosavi-Movahedi, H.Ghourchian, " Direct electrochemistry of catalase in multiwall carbon nanotube/dodecyl trimethylammonium bromide film covered with a layer of Nafion on a glassy carbon electrode " *International journal of Electrochemical Science* 6, 581-595, (2011).
۱۵. A. M. Mehranpour, **S. Hashemnia**, Z. Shayan, "Synthesis and characterization of new derivatives of 1,4-diazepinium salts" *Synthetic Communications*, 41, 3501-3511, (2010).
۱۶. A. M. Mehranpour, **S. Hashemnia**, R. Maghamifar, "Synthesis and characterization of new γ -substituted pentamethine cyanine dyes" *Synthetic Communications*, 40, 3594-3602, (2010).
۱۷. **S. Hashemnia**, H. Ghourchian, A. A. Moosavi-Movahedi, H. Faridnouri, " Direct electrochemistry of chemically modified catalase immobilized on oxidatively activated glassy carbon electrode" *Journal of Applied Electrochemistry*, 39, 7-14, (2009).
۱۸. H. Sotudeh, N. Changiz, **S. Hashemnia**, " Iranian scientists approach to publishing in and referencing to open access journals".
رویکرد دانشمندان ایرانی به انتشار در مجلات آزاد معتبر و ارجاع به آنها.
مدیریت اطلاعات سلامت / دوره ی هفتم / شماره ی اول / بهار ۸۹ / صفحات ۴۶-۳۴.
۱۹. A.A. Moosavi-Movahedi, P. Pirzadeh, **S. Hashemnia** and *et al* "Fibril formation of lysozyme upon interaction with sodium dodecyl sulfate at pH 9.2" *Colloids and Surfaces B: Biointerfaces*, 60, 55-61, (2007).
۲۰. A.A. Moosavi-Movahedi, M. Amani, S.Z. Moosavi-Nejad, **S. Hashemnia** and *et al*, "Thermal dissection of lentil seedling amine oxidase domains by
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differential scanning calorimetry" *Biosci. Biotechnol. Biochem.*, 71, 1644-1649, (2007).

۲۱. S. Hashemnia, A.A. Moosavi-Movahedi, H. Ghourchian, and *et al* " Diminishing of aggregation for bovine liver catalase through acidic residues modification" *International Journal of Biological Macromolecules*, 40, 47-53, (2006).

۲۲. A.M. Mehranpour, S. Hashemnia, " Solvatochromism in binary solvent mixtures by means of a penta-tertbutyl pridinium-N-phenolat betaine dye" *Journal of the Chinese Chemical Society*, 53, 759-765, (2006).

۲۳. S. Hashemnia, H. Sotoudeh, "The study of coverage of laccase enzyme literature by data bases: measuring algorithmic and cognitive relevance" *Informology*, (2004).

اطلاع شناسی، سال دوم، شماره ۱ (پائیز ۱۳۸۳) صفحه ۱۷۵.
اصل مقاله در بخش انگلیسی این مجله آورده شده است.

CONFERANCES

۱. S. Hashemnia, F. Nourmohammad "Voltammetric Determination of Dopamine in presence of Uric acid Using a Silver Nanoparticles Modified Electrode"

دهمین سمینار سالانه الکتروشیمی ایران، دانشگاه علم و صنعت ایران، ۵ و ۶ آذر ۱۳۹۳.

۲. احسان زارعی، سید جواد حسینی، صدیقه هاشم نیا، زهرا نوروزی، تعیین توالی cDNA هورمون مهار کننده پوست اندازی در میگوی ببری سبز خلیج فارس. هشتمین همایش بیوتکنولوژی جمهوری اسلامی ایران

و چهارمین همایش ملی ایمنی زیستی -۹۲/۴/۱۵

۳. مریم سپرهم، سید جواد حسینی، صدیقه هاشم نیا، احسان زارعی، مقایسه مولکولی میگوی ببری سبز

Penaeus semisulcatus و زیر گونه آن *Penaeus semisulcatus persicus* با استفاده از ناحیه ۱۶S

rRNA-tRNA val میتوکندریایی. هشتمین همایش بیوتکنولوژی جمهوری اسلامی ایران و چهارمین همایش

ملی ایمنی زیستی -۹۲/۴/۱۵

۴. زهرا نوروزی، سید جواد حسینی، صدیقه هاشم نیا، مریم سپرهم، مطالعه مولکولی میگوی ببری سبز

Penaeus semisulcatus و زیر گونه آن *Penaeus semisulcatus persicus* با استفاده از D-loop

میتوکندریایی. هشتمین همایش بیوتکنولوژی جمهوری اسلامی ایران و چهارمین همایش ملی ایمنی زیستی -

۹۲/۴/۱۵

۵. S. Hashemnia, Z. Hami “Direct Electron Transfer of Cytochrome c on Silver Nanoparticles Modified Carbon Paste Electrode” بیستمین کنفرانس شیمی تجزیه ایران Feb. ۲۵ ۲۰۱۴.
۶. S. HashemniaZ. Moradi “UV-Vis Spectroscopic Studies of Dopamine Interaction with Catalase” شانزدهمین کنگره شیمی ایران Aug. 7, 2013.
۷. S. Hashemnia, Z. Solati, M.Mohammadi “Electrochemical investigation of Mn(T(4Me)PP)Cl. Effects of imidazole and binary mixture of methanol dichloromethane”. 8th Iranian Annual Seminar of Electrochemistry, Jan. 30, 2013.
۸. S. Hashemnia, S. Rezvani, A. M. Mehranpour “Cyclic Voltammetric Investigations of Newly Synthesized Co(II) complex of dibenzotetraaza[14] annulene in DMF”. 8th Iranian Annual Seminar of Electrochemistry, Jan. 30, 2013.
۹. Z. Solati, S. Hashemnia, H.Bolhaji “Electrochemical Reactivity of Mn(4FTPP)Cl. Effects Axial Ligand and Oxidant” 8th Iranian Annual Seminar of Electrochemistry, Jan. 30, 2013.
۱۰. S. Hashemnia, Z. Mokhtari, “Chemical modification of carboxyl residues of bovine liver catalase using neomycin”. 10th Iran Biophysical Chemistry Conference, 22-23 February 2011.
۱۱. S. Hashemnia, M. Eskandari, Z.Solati, “A second-generation hydrogen peroxide biosensor fabricated by immobilization of carbon nanotube/thionine/catalase film on glassy carbon electrode”. 9th Iranian Biennial Electrochemistry Conference Jan. 22-24, 2011.

۱۲. S. Hashemnia, M. Eskandari, Z. Karmand, "Electrochemical Study of Phenazine Dyes Immobilized on a Carbon Paste Electrode". 9th Iranian Biennial Electrochemistry Conference Jan. 22-24, **2011**.

۱۳. J. Tashkhourian, S. Hashemnia, S. F. Nami Ana, "Construction of Nanocomposite Modified Carbon Paste Electrodes based on TiO₂ and SiO₂ Nanoparticles For Determination of Gallic Acid". 9th Iranian Biennial Electrochemistry Conference Jan. 22-24, **2011**.

۱۴. S. Hashemnia, Sh. Khayatzadeh, "Phenol biosensor based on immobilizing a film of tyrosinase/carbon nanotubes/surfactant on a carbon paste electrode".

سومین همایش ملی نانو تکنولوژی در پزشکی و علوم زیستی - دانشگاه علوم پزشکی و خدمات بهداشتی درمانی ایران. تاریخ: چهارم لغایت ششم اسفند ۱۳۸۸

۱۵. S. Hashemnia, Sh. Khayatzadeh, H. Ghourchian, A. A. Moosavi-Movahedi "Direct electron transfer of catalase in carbon nanotube-surfactant film on a glassy carbon electrode". 8th Biennial Electrochemistry Seminar of Iran (8BESI) Jul. 14-16, **2009**.

۱۶. S. Hashemnia, H. Ghourchian & A. A. Moosavi-Movahedi "The Investigation of direct electron transfer between an electrode surface and catalase through acidic residues modification" The First Regional Symposium on Bioelectrochemistry Oct. 13-15, **2008**.

۱۷. H. Sotoudeh, N. Changiz, S. Hashemnia, " The Iranian scientists' approach to publishing and referencing Open Access papers".

اولین همایش سراسری علم سنجی در علوم پزشکی، دانشگاه علوم پزشکی و خدمات بهداشتی درمانی استان اصفهان. تاریخ: پانزدهم لغایت شانزدهم اسفند ماه ۱۳۸۶.

۱۸. S. Hashemnia, H. Ghourchian, A.A. Moosavi-Movahedi, " Electrochemical behavior of catalase on activated glassy carbon electrode: a chemical modification approach". 7th Biennial Electrochemistry Seminar of Iran (7 BESI) Aug. 28-30, **2007**.

۱۹. H. Faridnouri, S. Hashemnia, H. Ghourchian, " Study of direct electrochemical redox of modified tyrosinase on activated glassy carbon electrode". 7th Biennial Electrochemistry Seminar of Iran (7 BESI) Aug. 28-30, **2007**.

۲۰. S. Hashemnia, A. A. Moosavi-Movahedi, H. Ghourchian, "Chemical modification of acidic residues as a tool to prevent the aggregation of bovine liver catalase". 7th Iranian Biophysical Chemistry conference, 18-19 July **2006**.
۲۱. S. Hashemnia, A.A. Moosavi-Movahedi, H. Ghourchian, "Structural and functional structure of bovine liver catalase upon chemical modification of carboxyl residues". 31st FEBS Congress Molecules in Health & Disease, 24-29 June, **2006**/Istanbul, Turkey.
۲۲. M.H. Arbab-Zavar, S.Hashemnia, " Determination of arsenic with potentiometric methods used modified solid state electrode".

پنجمین سمینار شیمی تجزیه ایران، دانشگاه صنعتی اصفهان.

تاریخ: فروردین ۱۳۷۳.

RESEARCH PROJECTS

۱. S. Hashemnia **Completed 2014**
Persian Gulf University "Cyclic voltammetric investigations of newly synthesized Metallic complexes of tetraaza[14]annulene"
۲. S. Hashemnia **Completed 2014**
Persian Gulf University "Electrochemical study of the redox dyes thionine and safranin adsorbed on carbon paste electrode"
۳. S. Hashemnia. **Completed 2011**
Persian Gulf University "Direct electron transfer between phenol oxidase-surfactant film and electrode surface"

POSTGRADUATE TEACHING EXPERIENCE

Supervised students (M.Sc)

۱. Sh. hayatzadeh (2010).
The of carbon nanotubes-surfactant films in studying direct electron transfer of catalase and in designing a tyrosinase biosensor for determination of phenolic compounds.

- ۲ . **M. Eskandari (2011).**
Electrochemical studies of dyes and dye-protein films immobilized on carbon paste electrode and glassy carbon electrode.
- ۳ . **Z. Mokhtari (2011).**
Structural and electrochemical studies of modified catalase using neomycin.
- ۴ . **Z. Karmand (2012).**
Structural studies of native and chemically modified cytochrome C: using phenazines.
- ۵ . **S. Rezvani (2013).**
The study of catalytic activity of some metal derivatives of annulenes in reactive oxygen decomposition of species
- ۶ . **Z. Moradi (2014).**
The structural and functional study of catalase in the presence of dopamine
- ۷ . **Z. Hami (2014).**
Electrochemical and structural studies of cytochrome C in the presence of silver nanoparticles
- ۸ . **F. Nourmohammad (2015).**
Voltammetric Determination of Dopamine in presence of Ascorbic Acid and Uric acid Using a Silver Nanoparticles Modified Electrode
- ۹ . **Z. Etemadi (2016).**
Synthesis and Electrochemical Studies of cytochrom c-Functionalized Magnetic Iron Oxide Nanoparticles
- ۱۰ . **S. Zofonon (2016).**
Synthesis and Electrochemical Studies of Dopamine-Functionalized Magnetic Iron Oxide Nanoparticles