

CURRICULUM VITAE

Dr. Ali Ehsani

Associate professor



<https://scholar.google.com/citations?user=0urP8Q8AAAAJ&hl=en>

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Personal Information

Date of Birth: February 06, 1977

Place of Birth: Qom, Iran

Citizenship: Iran

Marital Status: Married

Job Position: Academic staff, Associate Professor in Physical chemistry (Electrochemistry)

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Education

Ph.D. in Electrochemistry: K. N. Toosi University of Technology, Tehran, Iran, April. 2012.

M.Sc. in physical Chemistry: K. N. Toosi University of Technology, Tehran, Iran, November 2002.

B.Sc. in chemistry: Zanjan University, 1999.

Professional Experience

1. Teaching assistant (during Ph.D. program), General and surface Chemistry, K. N. Toosi University of Technology, Tehran, Iran, 2010-2012
2. Assistant Professor of physical Chemistry, University of Qom, Qom, Iran, 2012-2016.
3. Associate Professor of physical Chemistry, University of Qom, Qom, Iran, 2016-present

Courses Taught

1. Advanced physical Chemistry
2. Statistical Thermodynamics
3. Advanced chemical kinetics
4. Advanced electrochemistry
5. Solid state electrochemistry
6. Physical chemistry
7. Surface chemistry
8. Corrosion
9. Industrial electrochemistry
10. General Chemistry
11. General and physical Chemistry Laboratories

Current Research Interests

1. Surface chemistry and impedance spectroscopy
2. Fuel Cell (electrocatalyst)
3. Corrosion
4. Conductive polymer
5. Electrosynthesis

6. Nanocomposite
7. Anomalous diffusion and fractal object
8. Electrochemical capacitors
9. Battery
10. Semiconductor

Honors & Awards

- ✓ **Research Excellence Award in 2019, Qom Province**
- ✓ Distinguished researcher in Qom university, 2019, Awarded by the Director of the Qom university.
- ✓ Distinguished researcher in Qom university, 201[^], Awarded by the Director of the Qom university.
- ✓ Distinguished teacher in Qom university, 2017, Awarded by the Director of the Qom university.
- ✓ Distinguished researcher in Qom university, 2016, Awarded by the Director of the Qom university.
- ✓ **Research Excellence Award in 2015, Qom Province**
- ✓ Distinguished researcher in Qom university, 2014, Awarded by the Director of the Qom university.
- ✓ Distinguished researcher in Qom university, 2013, Awarded by the Director of the Qom university.
- ✓ Selected as a best presentation in 7^h Iran Fuel Cell seminar, March 2014, Awarded by His Excellency the chairman of the Seminar, Qeshm-Iran.
- ✓ Distinguished Ph.D. student in K. N. Toosi university of Technology, 2010, Awarded by the Director of the K. N. Toosi university of Technology.

- ✓ Distinguished electrochemistry Ph.D. Student in Iranian Electrochemical Society, 2011, Awarded by the Director of the Iranian electrochemical Society.
- ✓ First ranking Ph.D. student of chemistry, K. N. Toosi University of technology, 2012.
- ✓ Selected as a best presentation in 6th Iran electrochemistry seminar, August 2010, Awarded by His Excellency the chairman of the Seminar, Kish-Iran.
- ✓ -Selected as a best poster in 9th Iranian nano conference, March 2011, Awarded by His Excellency the chairman of the Seminar, Amirkabir university of Technology-Iran.
- ✓ Selected as a best researcher and granted travel award by Romanian Society of Electrochemistry, 3th regional symposium of electrochemistry-East Europe, May-2012, Bucharest, Romania.

✓ **Selected as reviewer for the following International Scientific Journals**

- *Electrochimica Acta*
- *Journal of power sources*
- *Journal of Electroanalytical chemistry*
- *ACS Sustainable Chemistry & Engineering*
- *Synthetic Metals*
- *Material chemistry and physics*
- *Corrosion Science*
- *Journal of Industrial and Engineering Chemistry*
- *Electroanalysis*
- *Journal of Molecular Liquid*
- *Analyst*
- *Ionics*
- *Applied surface science*
- *Journal of Colloid and Interface Science*
- *Colloids and Surfaces A: Physicochemical and Engineering Aspects*
- *RSC Advances*

- *Jacobs Journal of Materials Science*
- *Research on chemical intermediates*
- *Materials Science and Engineering B*
- *Pharmaceutical Nanotechnology*
- *Nanochemistry Research*
- *African Journal of Pure and Applied Chemistry*
- *Iranian journal of Material Science and Engineering*
- *Chemistry International*
- *Journal of Alloy and Compound*
- *Journal of the Taiwan Institute of Chemical Engineers*
- *IEEE Sensors Journal*
- *Material @design*
- *Chemical Engineering Journal*
- *Journal of Adhesion Science and Technology*
- *The Journal of Physical Chemistry*
- *Plastics, Rubber and Composites: Macromolecular Engineering*
- *The Chemical Record*
- *Chem ElectroChem*
- *International Journal of Energy Research*
- *Advanced Ceramics Progress*
- *Journal of Physics and Chemistry of Solids*
- *ACS Omega*
- *ACS Applied Materials & Interfaces*
- *Journal of The Electrochemical Society*
- *Journal of Energy storage*
- *Journal of Molecular Structure*

- *Physical Chemistry C*
- *Ceramics International*
- *Surface and Coatings Technology*
- *Colloids and Surfaces A: Physicochemical and Engineering Aspects*
- *Journal of Physics and Chemistry of Solids*
- *Langmuir*
- *Solid state Science*

Membership

- ✓ International Society of Electrochemistry
- ✓ Iranian society of Electrochemistry
- ✓ Iranian Chemical Society

Thesis Supervised (MSc):

1. *Jalil Khodayari* , Kinetic study of electrocatalytic oxidation of methanol on the surface of composite and metal oxide nanostructures modified electrodes. **University of Qom**, September 2016 (supervisor).
2. *A. Norozi* , Kinetic study of carbon steel (as used in oil and gas pipes) corrosion in different corrosive media . **University of Qom**, September 2016 (supervisor).
3. *M. Bigdeloo*, Electrochemical and kinetic investigation of charge transfer and energy storage Process in hybrid nanocomposites of conductive polymer /metal oxide nanostructure, **University of Qom**, October 2017 (supervisor).

4. *Nasrin Dehghani*, Synthesis of functionalized graphene oxide nanocomposites and has been restored with magnetic ionic liquid and its application in coating absorbing electromagnetic waves, **University of Qom**, October 2017 (co-supervisor).

5. *M. Hosseini*, Electrochemical study of protective effect of polymer nanocomposites and organic inhibitors for aluminium corrosion, **Alzahra University**, September 2016 (supervisor).

6. *M. Mohammadi*, Electrochemical study of the inhibitory effects of organic compounds and nanocomposites on the corrosion of copper in corrosive media, **Alzahra University**, September 2016 (co-supervisor).

7. *N. Fathali*, Novel electroactive nanocomposite of polytyramine for increasing the performance of anode of direct methanol fuel cell, **Alzahra University**, September 2017 (co-supervisor).

8. *M. Dashti Najafi*, Electrosynthesis and Supercapacitor Behavior of Conductive Polymer Nanocomposites Functionalized by Ionic Liquids and Graphene Oxide, **Amirkabir University of Technology**, September 2017 (supervisor).

9. *S. Assadi*, Electrosynthesis and Supercapacitor behavior of Conducting Polymer Composites with N-benzoyl derivatives of Isoleucine, Glycine and Phenylglycine, **Amirkabir University of Technology**, December 2017 (co-supervisor).

10. *Saeed Moradkhani*, Investigation of electrochemical behavior of polytyramine in different electrosynthesis condition , **Payme Noor University**, September 2013 (supervisor).

11. *Ameneh Vaziri-Rad*, Electrosynthesis and electrocatalytic activity of poly tyramine nanocomposite films with carbon nanostructures, Payme Noor University, September 2014 (supervisor).

12. *Ahmad Khodadadi* , Electrochemical study of inhibition effect of organic compound with donor and acceptor substituents , Payme Noor University, December 2014 (supervisor).

13. *M. Ghanbari* , Electrochemical investigation of inhibition effect of tetrazoles compounds on Al corrosion, Payme Noor University, September 2015 (supervisor).

14. *SH. Bodaghi*, Electrochemical study of inhibition effect of tetrazole compound in corrosion of stainless steel in acidic solution, Payme Noor University, September 2015 (supervisor).

15. *R. Asgari* , Investigation electrocatalytic oxidation of methanol on the POAP/CuO modified graphite electrode in alkaline media. Payme Noor University , September 2016 (supervisor).
16. *S. kazemi* , Investigation of electrochemical behavior and sensor activity of poly amino phenol-graphene oxide nanocomposite. Payme Noor University , October 2016 (supervisor).
17. *H. Yazdanpanah*, Investigation of electrochemical activity and supercapacitive properties of prepared electrode from nanocomposite of conductive polymer and ionic liquid functionalized reduced graphene oxide . Payme Noor University , December 2017 (supervisor).
18. *M. Yousefi* , Electrosynthesis of hybrid nanocomposite of poly ortho amino phenol/Metal organic framework as a electroactive material in electrochemical supercapacitors. Payme Noor University, December 2017 (supervisor).
19. *M. Yazdan Panah* , Study of inhibitory effect of new absorbable organic compound on Al 1005 corrosion by common electrochemical methods, Payme Noor University, December 2017 (supervisor).
20. *E. Ashrafi* , Electrochemical and computational investigation of charge transfer and energy storage process in nanocomposites of poly orthoaminophenol with ionic liquid and graphene structures. **University of Qom**, (supervisor).
- 21) *E. Kamali Ardakani*, The effect of new imidazolium based functionalized ionic liquid on corrosion inhibition of mild steel, **Amirkabir University of Technology**, January 2019 (supervisor).
- 22) *M. Maghsodi*, High performance supercapacitor based on new poly ionic liquid/functionalized graphene oxide/conductive polymer nanocomposites, **Amirkabir University of Technology**, January 2019 (supervisor).
- 23) *A. Ebrahimi*, Electrosynthesis of poly amino phenol/transition metal organic compound nanocomposite and investigation of electrocatalytic activity and energy storage of them in conventional three electrode system by common electrochemical methods , **Payme Noor University**, January 2019 (supervisor).
- 24) *Z. Samiei*, Payame Noor University (January, 2019)

- 25) *F. Assefi*, **University of Qom**, (October 2019).
- 26) *M. Jahani*, Payame Noor University (January, 2019)
- 27) *Z. Rostami*, Payame Noor University (2019)
- 28) *F. karimi*, **University of Qom**, (2019)).
- 29) *S. Shayei*, **University of Qom**, (2019).
- 30) *M. Mousavi*, **University of Qom**, (2019).
- 31) *M. Safarpoor*, Payame Noor University 2020)
- 32) *M. Heidari*, **University of Qom**, (2020).
- 33) *M. Hazbaei*, **University of Qom**, (2020).
- 34) *M. Esfahaniha*, **University of Qom**, (2020).
- 35) *M. R. Zamani*, **University of Qom**, (2020).
- 36) *R. Kashi*, **University of Qom**, (2020).

Theses Supervised and Advised (Ph.D):

1. *M. Dashti Najafi*, *Amirkabir University of Technology* (Ph.D)
2. *F. Boorboor Ajdari*, *Amirkabir University of Technology* (Ph.D)
3. *M. Shahrivari*, *Kharazmi University* (Ph.D)
4. *M. Naseri*, *Alzara University* (Ph.D)
5. *M. Bigdeloo*, *Amirkabir University of Technology*(Ph.D)
6. *S. Sadeghi*. *PayameNoor University* (Ph.D)

Postdoctoral Researcher:

Mahdieh Korepazane Moftakhar (2019-2020)

Published Book:

- ✓ *Graphene Surfaces: particles and catalyst, Elsevier, 2018.*
- ✓ *Electrochemistry and corrosion science, 2019.*
- ✓ *Analytical Microextraction Techniques, 2020.*
- ✓ *Electrochemical Supercapacitors, 2020.*

List of ISI Publications

125) A. Ehsani, H.R. Parsimehr, Corn-based Electrochemical Energy Storage Devices, *The chemical Records*, 2020, Accepted.

124) F. Zahraei, F. Babaei, A. Ehsani, Effect of morphology on supercapacitive and optical properties of chemically grown Graphene-Nickel Oxide nanocomposites, *International Journal of Modern Physics B*, 2020. Accepted.

123) E. Kowsari, F. Ajdari, A. Ehsani, ..., A review on the field patents and recent developments over the application of Metal Organic Frameworks (MOFs) in supercapacitors, *Coordination Chemistry Reviews*, 2020. Accepted.

122) Peyman Khodaei kahriz, Hossein Mahdavi, Ali Ehsani, Ali Akbar Heidari, M Bigdeloo, Influence of synthesized functionalized reduced graphene oxide aerogel with 4,4'-methylenedianiline as the spacer on electrochemical and pseudocapacitance performance of poly orthoaminophenol electroactive film, *Electrochim Acta*, (2020) Accepted.

121) E. kowsari, F. Ajdari, M. Maghsoudi, **A. Ehsani**, Electrochemical performance of Silsesquioxane-GO loaded with alkoxy substituted ammonium-based ionic liquid and POAP for supercapacitor, *Electrochim. Acta*, (2020) Accepted.

120) Cover Picture: **Ali Ehsani** , Ali Akbar Heidari , Maryam Sajedi, Graphene and Graphene/Polymer Composites as the Most Efficient Protective Coatings for Steel, Aluminum and Copper in Corrosive Media: A Review of Recent Studies (Chem. Rec. 6/2020).

119) S. Sadeghi, H. Mohammad Shiri, **A. Ehsani**, M. Oftadeh Electrosynthesis of high-purity TbMn₂O₅ nanoparticles and its nanocomposite with conjugated polymer: Surface, density of state and electrochemical investigation, solid state science, 2020, <https://doi.org/10.1016/j.solidstatesciences.2020.106227>.

118) **A. Ehsani**, M. Bigdeloo, F. Assefi, M. Kiamehr, R. Alizadeh, Ternary nanocomposite of conductive polymer/chitosan biopolymer/metal organic framework: Synthesis, characterization and electrochemical performance as effective electrode materials in pseudocapacitors, *Inorganic Chemistry Communications*, 115 (2020) 107885.

117) **A. Ehsani**, H.R. Parsimehr, Electrochemical Energy Storage Electrodes (EESE) via Citrus Fruits derived carbon: a mini review, *The chemical Records*, 2020, Accepted.

116) Mojtaba Hadi, , Elaheh Ahmadvanda, **Ali Ehsani**, Electroanalytical Sensing of Piperazine at Carbon Nanotubes/Nafion Composite-Modified Glassy Carbon and Screen-Printed Carbon Electrodes in Human Plasma, *Journal of Analytical Chemistry*, 75(2)(2020)238–245.

115) M. Abbasi, E. Kowsari, **A. Ehsani**, A. Akbari, Functionalized graphene oxide (GO-imi-CH₂)₂-NH₂) as a high efficient material for electrochemical sensing of lead: Synthesis, surface and electrochemical characterization, *Journal of Electroanalytical Chemistry*, 858(2020)113784.

- 114) E. kamali Ardakani, E. Kowsari, **A. Ehsani**, Imidazolium-derived polymeric ionic liquid as a green inhibitor for corrosion inhibition of mild steel in 1.0 M HCl: Experimental and computational study, *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, (2019) 124195. <https://doi.org/10.1016/j.colsurfa.2019.124195>
- 113) M. Sadeghinia, J. Shabani Shayeh, , F. Fatemi, M. Rahmandoust, **A. Ehsani**, M. Rezaei, Electrochemical study of perlite-barium ferrite/ conductive polymer nano composite for super capacitor applications, *Int. J. Hydrogen Energy*, 44(2019)28088-28095.
- 112) S. Shahrivari, E. Kowsari, A. Shockravi, **A. Ehsani**, Synthesis and electrochemical capacitor characterization of new copolyimides containing thiazole ring and their composites with conductive polymer chemical intermediate, *Research on Chemical Intermediates*, <https://doi.org/10.1007/s11164-019-03995-x>.
- 111) A. Ehsani, A.A. Heidari, M. Sajedi, Graphene and Graphene/Polymer Composites as the Most Efficient Protective Coatings for Steel, Aluminum and Copper in Corrosive Media: a Review of Recent Studies, *The Chemical Records*, 20(6)(2020)467-493.
- 110) A. Ehsani, H. Parsimehr, H. Nourmohammadi, R. Safari, S. Doostikhah, Environment-friendly electrodes using biopolymer chitosan/poly ortho aminophenol with enhanced electrochemical behavior for use in energy storage devices, *polymer Composite*, 40(12)(2019)4629-4637.
- 109) **A. Ehsani**, H. Shiri, R. behjatmanesh, S. Hajghani, Electrosynthesis of transition metal nanoparticles and its nanocomposite with conjugated polymer as high efficient electrode materials in energy storage device: surface, density of state (DOS) and electrochemical investigation, *Solid State Ionics*, 338(2019)87-95.
- 108) **A. Ehsani**, A.A. Heidari, R. Asgari, Electrocatalytic Oxidation of Ethanol on the Surface of the Graphene Based Nanocomposite: An Introduction and Review to it in Recent Studies , *The Chemical Records*, 19(11)(2019)2341-2360.

107) A.R. Jannat, R. Naderi, E. Kowsari, H. Zandi, M. Saybani, Reza Safari, **Ali Ehsani**, Electrochemical techniques and quantum chemical analysis as tools to study effect of a dicationic ionic liquid on steel behavior in H_2SO_4 , *Journal of the Taiwan Institute of Chemical Engineers*, 99(2019)18-28, <https://doi.org/10.1016/j.jtice.2019.02.037>.

106) R. Safari, M. Bigdelo, **A. Ehsani**, B. Mirtamizdoust, H. Mohammad Shiri, Enhancing the electrochemical properties of the p- type conductive polymer on the surface of the new synthesized 2-(pyridin-3-Imethylene) hydrazine-1-carbothioamide modified electrode: electrochemical and quantum theory of atoms in molecules study, *Journal of Iranian Chemical Society*, 16(2019) 1441-1449.

105) Somaye Shahrivari, Elaheh. Kowsari, Abbas Shockravi, **Ali Ehsani**, Synthesis of different new copolyimides and influence of different molar ratios of diamines and dianhydride on pseudocapacitance performance of p-type conductive polymer, *Journal of Electroanalytical Chemistry*, 837(2019)123-136.

104) E. Kowsari, **A. Ehsani**, S. Assadi, R. Safari, M. Sajedi, Electrochemical and theoretical study on enhanced pseudocapacitance performance of poly orthoaminophenol film in the presence of different derivatives of phenylglycine, *Solid State Ionic*, 329(2019)52-60.

103) **A. Ehsani**, A.A. Heidari, H. Mohammad Shiri, Electrochemical pseudocapacitors based on ternary nanocomposite of conductive polymer/ graphene/ metal oxide: An introduction and review to it in recent studies, *The Chemical Records*, 19(5)(2019)908-926.

102) **A. Ehsani**, M. Bigdeloo, A. Lorparizangene, M. Hadi, R. Safari, H. Mohammad Shiri, A.A. Heidari, Carbon nanotube/metal oxide dispersed poly orthoaminophenol as a ternary nanocomposite film: facile electrosynthesis, surface characterization and electrochemical pseudocapacitive performance, *Journal of the Chinese Chemical Society*, 66(2019) 396-401. <http://dx.doi.org/10.1002/jccs.201800176>.

101) Farshad Boorboor Ajdari, Elaheh Kowsari, **Ali Ehsani**, Tayebeh Ameri, M. Schorowski, New synthesized ionic liquid functionalized graphene oxide: synthesis, characterization and its nanocomposite with conjugated polymer as effective electrode materials in energy storage device. *Electrochim. Acta*, 292(2018)789-804.

100) Hamid Mohammad Shiri, **Ali Ehsani**, Reza Behjatmanesh-Ardakani, Electrochemical deposition and plane-wave periodic DFT study on Dy₂O₃ nanoparticles and pseudocapacitance performance of Dy₂O₃ /conductive polymer nanocomposite film, *Journal of the Taiwan Institute of Chemical Engineers*, 93(2018)632-643.

99) E. Kowsari, **A. Ehsani**, S. Assadi, R. Safari, Influence of different N-benzoyl derivatives of isoleucine on electrochemical properties and pseudocapacitance performance of conductive polymer electroactive film: Electrochemical and theoretical study, *J. Electroanal. Chem*, 826(2018)65-75.

98) Farshad Boorboor Ajdari, Elaheh Kowsari, **Ali Ehsani**, Liudmyla Chepyga, Milan Schirowski, Sebastian Jäger, Olga Kasian, Frank Hauke, Tayebeh Ameri, Melamine-functionalized graphene oxide: synthesis, characterization and considering as pseudocapacitor electrode material with intermixed POAP polymer, *Applied Surface Science*, 459(2018)874-883.

97) **A. Ehsani**, R. Safari, H. Yazdanpanah, E. Kowsari, H. Mohammad Shiri, Electroactive conjugated polymer / magnetic functional reduced graphene oxide for highly capacitive pseudocapacitors: Electrosynthesis, physioelectrochemical and DFT investigation, *Electrochemical Science and technology*, (4) (2018)301-307.

96) Reza Safari, **Ali Ehsani**, Javad Torabian , AmirHossein Nikkhoo, A study of the Electro-Catalytic Oxidation of Methanol on a Ni-Functionalized Graphene Oxide/p-type Conductive Polymer Modified Graphite Electrode: Experimental and Theoretical Approach, *Russian Journal of Electrochemistry*, 55(5)(2019)381-391.

- 95) **Ali Ehsani**, Reza Safari, Hamid Mohammad Shiri, Amir Mohammad Yazdanpanah, Effect of Complex Ceramic Oxide Nanoparticles Addition on the Corrosion Behaviour of Stainless Steel in Artificial Sea Water: Physical Chemistry Approach, *Protection of Metals and physical chemistry of the surface*, 55(3)(2019)371-376.
- 94) M. Beikmohammadi, L. Fotouhi, **A. Ehsani**, M. Naseri, Potentiodynamic and electrochemical impedance spectroscopy study of anticorrosive properties of p-type conductive polymer/TiO₂ nanoparticles, *Solid State Ionic*, 324(2018) 138-143.
- 93) F. Boorboor Ajdari, E. Kowsari, **A. Ehsani**, Ternary nanocomposites of conductive polymer/functionalized GO/MOFs: Synthesis, characterization and electrochemical performance as effective electrode materials in pseudocapacitors, *Journal of Solid State Chemistry* 265 (2018) 155–166.
- 92) M. hadi, M. Bayat, **A. Ehsani**, H. Mostaanzadeh, A. Yeganeh-Faal, Sensitive electrochemical detection of picloram utilising a multi-walled carbon nanotube/Cr-based metal-organic framework composite-modified glassy carbon electrode *International Journal of Environmental Analytical Chemistry*, <https://doi.org/10.1080/03067319.2018.1441838>.
- 91) Maryam Naseri, Lida Fotouhi, **Ali Ehsani**, Recent Progress in the Development of Conducting Polymer-Based Nanocomposites for Electrochemical Biosensors Applications: A Mini-Review, *The Chemical Records*, **18(6)(2018)599-618**.
- 90) Maryam Naseri, Lida Fotouhi, **Ali Ehsani**, Nanostructured Metal Organic Framework Modified Glassy Carbon Electrode as a High Efficient Non-Enzymatic Amperometric Sensor for Electrochemical Detection of H₂O₂, *J. Electrochem. Sci. Technol.*, 2018, 9(1), 28-36.
- 89) Lida Fotouhi, **Ali Ehsani**, Nasrin Fathali, ZnO/Polytyramin nanocomposite film: Facile electrosynthesis and high performance electrocatalytic activity toward methanol oxidation, *International Journal of Hydrogen Energy*, 43 (2018) 6987-6996.

- 88) E. Kowsari, **A. Ehsani**, M. Dashti Najafi, N. Seifvand, A.A. Heidari, Geminal dicationic ionic liquid functionalized graphene nanoribbon/POAP composite film: synthesis, characterization and electrochemical pseudocapacitance performance, *Ionic*, July 2018, Volume 24, [Issue 7](#), pp 2083–2092.
- 87) A. Ehsani, B. Mirtamizdoust, M. Yousefi, R. Safari, M. Hadi, AK. Heidari, Nanocomposite of conjugated polymer/ Nano-flowers Cu(II) metal-organic system with 2-methylpyridinecarboxaldehyde isonicotinohydrazide as a novel and hybrid electrode material for highly capacitive pseudocapacitors, *Bulletin of the Chemical Society of Japan*, 2018, 91, 617-622.
- 86) E. Kowsari, **A. Ehsani**, M. Dashti Najafi, M. Bigdeloo, Enhancement of pseudocapacitance performance of p-type conductive polymer in the presence of newly synthesized graphene oxide-hexamethylene tributylammonium iodide nanosheets, *Journal of Colloid and Interface*, 512 (2018) 346–352.
- 85) **A. Ehsani**, E. Kowsari, F. Boorboor Ajdari, R. safari, H. Mohammad Shiri, Enhanced pseudocapacitance performance of conductive polymer electroactive film in the presence of green compound of 1-Butyl-3-methylimidazolium Chloride: Electrochemical and DFT study, *Journal of Colloid and Interface*, 512 (2018) 151–157.
- 84) **A. Ehsani**, M. Hadi, E. Kowsari, S. Doostikhah, J. Torabian, Electrocatalytic oxidation of ethanol on the surface of the POA P/ phosphoric acid-doped ionic liquid-function alized graphene oxide nanocompo site film, *Iranian Journal of Catalysis*, 7(3), 2017, 187-192.
- 83) M. Hadi, Molae, A. Ehsani, Graphene oxides/multi-walled carbon nanotubes hybrid-modified carbon electrodes for fast and sensitive voltammetric determination of the anticancer drug 5-fluorouracil in spiked human plasma samples, *Chemical paper*, DOI: 10.1007/s11696-017-0295-4.

82) F. Boorboor Ajdari, E. Kowsari, **A. Ehsani**, P-type conductive polymer/zeolitic imidazolate framework-67 (ZIF-67) nanocomposite film: Synthesis, characterization, and electrochemical performance as efficient electrode materials in pseudocapacitors, *Journal of Colloid and Interface*, 509 (2018) 189–194.

81) Reza Safari, **Ali Ehsani** , Hamid Reza Ebrahimi, Study of Imidazolium Ionic Liquid Effect on the Corrosion Inhibition of 316-Stainless Steel, Using Electrochemical Test Methods and Quantum Mechanics Theories, **in Persian**, *New Process in Material Engineering*, 2018, 12(1), 25-39.

80) Javad Shabani Shayeh, **Ali Ehsani**, Ali Naeemy, Hamid Mohammad Shiri, Fataneh Fatemi, Amir Yadegari, Meisam Omid, Electrosynthesis and characterization of poly aniline/ garnet nanoparticles for high performance electrochemical capacitors, *Ionics* (2018) 24:505–511.

79) Hamid Mohammad Shiri, **Ali Ehsani**, Mina Jalali Kholes, Electrochemical Synthesis of Sm_2O_3 Nanoparticles: Application in Conductive Polymer Composite Films for Supercapacitors, *Journal of Colloid and Interface*, 505 (2017) 940–946.

78) **Ali Ehsani**, Elaheh Kowsari, F. Boorboor Ajdari, Reza safari, H. Mohammad Shiri, Influence of newly synthesized geminal dicationic ionic liquid on electrochemical and pseudocapacitance performance of conductive polymer electroactive film, *Journal of Colloid and Interface*, 505 (2017) 1158–1164.

77) M. Hadi, **A. Ehsani** , R. Alizadeh, From heart valves to skies: A review on structures, fabrication methods, and diverse applications of pyrolytic carbon, **Journal of Applied Research in Chemistry**, 10 (2017)5-10.

- 76) E. Kowsari, **A. Ehsani**, M. Dashti Najafi, Electrosynthesis and pseudocapacitance performance of ionic liquid – Cr ($\text{PF}_6\text{-C}_6\text{H}_5$) complex functionalized reduced graphene oxide/ poly ortho aminophenol nanocomposite film, *Journal of Colloid and Interface*, 504 (2017)507-513.
- 75) Maryam Hosseini, Lida Fotouhi, **Ali Ehsani**, Maryam Naseri, Enhancement of corrosion resistance of polypyrrole using metal oxide nanoparticles : potentiodynamic and electrochemical impedance spectroscopy study , *Journal of Colloid and Interface*, 505 (2017) 213–219.
- 74) **A. Ehsani**, E. Kowsari, M. Dasti Najafi, R. safari, H. Mohammad Shiri, Enhanced pseudocapacitive performance of electroactive p-type conductive polymer in the presence of 1-octadecyl-3-methylimidazolium bromide, *Journal of Colloid and Interface* , 503 (2017) 10-16.
- 73) **A. Ehsani**, E. Kowsari, M. Dasti Najafi, R. safari, H. Mohammad Shiri, Influence of ionic liquid on pseudocapacitance performance of electrochemically synthesized conductive polymer: Electrochemical and theoretical investigation *Journal of Colloid and Interface* , 500 (2017) 315-320.
- 72) **A. Ehsani**, E. Kowsari, F. Boorboor Ajdari, R. safari, H. Mohammad Shiri, Sulfonated graphene oxide and its nanocomposites with electroactive conjugated polymer as effective pseudocapacitor electrode materials, *Journal of Colloid and Interface Science*, 497 (2017) 258–265.
- 71) Javad Shabani Shayeh, Mohammad Sadeghinia, Seyed Omid Ranaei Siadat, **Ali Ehsani**, Mehran Rezaei, Meisam Omid, A novel route for electrosynthesis of CuCr_2O_4 nanocomposite with p-type conductive polymer as a high performance material for electrochemical supercapacitors, *Journal of Colloid and Interface Science*, 496 (2017) 401-406.
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