



https://scholar.google.com/citations?hl=en&user=9ZzuRsEAAAAJ&view_op=list_works&sortby=pubdate

نام و نام خانوادگی: محمد رضا محمودیان

عضو هیئت علمی دانشگاه فرهنگیان (بهشتی تهران)
عضو پاره وقت دفتر تالیف کتب درسی (گروه شیمی)
عضو شورای برنامه ریزی کتب درسی شیمی دفتر تالیف کتب درسی
مدیر مسئول و صاحب امتیاز فصلنامه پژوهشی مدرسه سالم

تاریخ تولد: 1348/06/07

محل تولد: تهران

ایمیل: M_R_Mahmoudian@yahoo.com

همراه: 09123508510

تحصیلات:

کارشناسی: دانشگاه تربیت معلم تهران - ایران، 1367-1371

کارشناسی ارشد: دانشگاه اراک، ایران، 1377-1380

دکتری: دانشگاه مالایا مالزی، 1387-1390

پسا دکتری: حسگرهای الکتروشیمیایی 1390-1391

محقق ارشد در دانشگاه مالایا (شیمی)، 1391-

وابستگی حرفه ای / عضویت وابستگی حرفه ای / عضویت

انجام پروژه های بین المللی در کشورهای کره جنوبی و مالزی از سال ۹۱ تا کنون

اجرای کارگاه آموزشی EIS برای اساتید دانشگاه آزاد 1395

اجرای کارگاه آموزشی برای اساتید دانشگاه UM مالزی 1395

انجمن نانو آمریکا، ایالات متحده آمریکا، عضو، 2011، (بین المللی)
<http://members.nanosociety.us/reza>

The International Advisory Editorial Board of *International Journal of Electroactive Materials*

http://electroactmater.com/index.php?option=com_content&view=article&id=85&Itemid=1
34

تدریس و فعالیت:

عضو هیئت علمی دانشگاه فرهنگیان (مرکز بهشتی تهران)
معلم شیمی در دبیرستان، 1372-1387
سر گروه شیمی سازمان آموزش و پرورش شهر تهران، از سال 1381-1387
دانشگاه آزاد دماوند، 1382-1387، شیمی پایه و شیمی تجزیه
مدرس دوره ضمن خدمت تهران، زاهدان (1377-1396)
عضو هیئت مدیر international conferences AMPT 2009

دروس مورد تدریس:

شیمی عمومی 1 و آزمایشگاه شیمی عمومی 1
شیمی عمومی 2 و آزمایشگاه شیمی عمومی 2
شیمی تجزیه 1 و آزمایشگاه شیمی تجزیه 1
شیمی تجزیه 2 (الکتروشیمی) و آزمایشگاه شیمی تجزیه 2
آنالیز دستگاهی
شیمی تجزیه پیشرفته
تحلیل محتوای آموزشی در شیمی
راهنمای تدریس در آموزش شیمی

جوایز:

انتخاب طرح نانو افزودنی Sn-doped TiO₂ برای کنترل خوردگی اینجانب بعنوان طرح نوآورانه سال ۹۵ از طرف معاونت فناوری ریاست جمهوری و ستاد نانو فناوری
سه کمک هزینه پروژه از دانشگاه مالایا، (2009، 2010 و 2011)
انتخاب کتاب تحت عنوان "ساختار اتمی" (محراب قلم، تهران، ایران، 1384) در جشنواره رشد (ایران، 1384)

کتاب:

1) کتاب معلم شیمی ۳ و آزمایشگاه (وزارت آموزش و پرورش 1393)

- 2) ساختار اتم برای معلم شیمی " (قائم مقام فراهانی، تهران ایران، 1387)
- 3) "چرخه بورن هابر" (معراج، تهران ایران، 1386)
- 4) تصویر سازی در آموزش شیمی " (فرهیختگان علوی، تهران. ایران، 1385)
- 5) "ساختار اتم" (محراب قلم، تهران، ایران، 1383)

زمینه های تخصص:

-الکتروشیمی (الکترو سنتز، Electrodeposition)
-خوردگی (طیف سنجی امپدانس الکتروشیمیایی)
-سنسور

Publications: ISI Journals (Accepted or Published):

1-L Shokrzadeh, P Mohammadi, **MR Mahmoudian**, WJ Basirun, M Bahreini, L-glycine-assisted synthesis of SnO₂/Pd nanoparticles and their application in detection of biodeteriorating fungi, *Materials Chemistry and Physics* 240, 122172.

2-**MR Mahmoudian**, WJ Basirun, PM Woi, H Hazarkhani, YB Alias, Voltammetric sensing of formaldehyde by using a nanocomposite prepared by reductive deposition of palladium and platinum on polypyrrole-coated nitrogen-doped reduced graphene oxide, *Microchimica Acta* 186 (6), 369

3-R Yousefi, **MR Mahmoudian**, The use of nanotechnology in preventing corrosion of metal pipe and equipment of Shahid Abbaspour Dam, *Journal of Dam and Hydroelectric Powerplant* 6 (20), 31-37

4-**MR Mahmoudian**, WJ Basirun, M Sookhakian, PM Woi, E Zalnezhad , Synthesis and characterization of α -Fe₂O₃/polyaniline nanotube composite as electrochemical sensor for uric acid detection, *Advanced Powder Technology* 30 (2), 384-392

5-**MR Mahmoudian**, WJ Basirun, PM Woi, R Yousefi, Y Alias, l-Glutamine-assisted synthesis of ZnO oatmeal-like/silver composites as an electrochemical sensor for Pb²⁺ detection, *Analytical and bioanalytical chemistry* 411 (2), 517-526

6-R Yousefi, HR Azimi, **MR Mahmoudian**, WJ Basirun ,The effect of defect emissions on enhancement photocatalytic performance of ZnSe QDs and ZnSe/rGO nanocomposites *Applied Surface Science* 2018, 435, 886-893

7-R Yousefi, HR Azimi, **MR Mahmoudian**, M Cheraghizade , Highly enhanced photocatalytic performance of Zn (1- x) MgO/rGO nanostars under sunlight irradiation synthesized by one-pot refluxing method *Advanced Powder Technology* 2018, 29 (1), 78-85

8-M Cheraghizade, F Jamali-Sheini, R Yousefi, F Niknia, **MR Mahmoudian** The effect of tin sulfide quantum dots size on photocatalytic and photovoltaic performance *Materials Chemistry and Physics* 2017, 195, 187-194

9-F Jamali-Sheini, F Niknia, M Cheraghizade, R Yousefi, **MR Mahmoudian**, Broad Spectral Response of Se-Doped SnS Nanorods Synthesized through Electrodeposition *ChemElectroChem* 2017, 4 (6), 1478-1486

10-M Sookhakian, WJ Basirun, MAM Teridi, **MR Mahmoudian**, M Azarang, Prussian blue-nitrogen-doped graphene nanocomposite as hybrid electrode for energy storage applications *Electrochimica Acta* 2017, 230, 316-323

- 11-**MR Mahmoudian**, WJ Basirun, E Zalnezhad, M Ladan, Y Alias , L-Glutamine-assisted synthesis of flower-like NiO and ball-flower-like NiO/Ag as an electrochemical sensor for lead (II) detection *RSC Advances* 7 (49), 30870-30878
- 12- HR Azimi, M Ghoranneviss, SM Elahi, **MR Mahmoudian**, F Jamali-Sheini, Excellent photocatalytic performance under visible-light irradiation of ZnS/rGO nanocomposites synthesized by a green method *Frontiers of Materials Science* 10 (4), 385-393
- 13-R Yousefi, **MR Mahmoudian**, A Sa, M Cheraghizade, F Jamali-Sheini, Effect of annealing temperature and graphene concentrations on photovoltaic and NIR-detector applications of PbS/rGO nanocomposites, *Ceramics International* 2016, 42 (14), 15209-15216
- 14-WJ Basirun, IM Saeed, H Ghadimi, M Ladan, **MR Mahmoudian**, M Ebadi, Lead corrosion and formation of lead oxides from a lead-air cell in methanesulfonic acid *Journal of New Materials for Electrochemical Systems* 2017, 19 (4), 217-222

- 15-**M.R. Mahmoudian**, WJ Basirun, Y binti Alias, A sensitive dopamine biosensor based on polypyrrole coated palladium silver nanospherical composites, *Industrial & Engineering Chemistry Research*, 2016, 55 (25), pp 6943–6951.
- 16-Abdolhossein Sa, Ramin Yousefi, Farid Jamali-Sheini, Ali Khorsand Zak, Mohsen Cheraghizade, **M.R. Mahmoudian**, Mohammad Amin Baghchesara, Abbas Shirmardi Dezaki, XPS studies and photocurrent applications of alkali-metals-doped ZnO nanoparticles under visible illumination conditions, *Physica E: Low-dimensional Systems and Nanostructures* 79, 113-118
- 17-**M.R. Mahmoudian**, WJ Basirun, PM Woi, M Sookhakian, R Yousefi and Yatimah Alias, Synthesis and characterization of Co₃O₄ ultra-nanosheets and Co₃O₄ ultra-nanosheet-Ni (OH)₂ as non-enzymatic electrochemical sensors for glucose detection, *Materials Science and Engineering: C* 59, 500-508
- 18-**M.R. Mahmoudian**, WJ Basirun, Y Alias, A sensitive electrochemical Hg²⁺ ions sensor based on polypyrrole coated nanospherical platinum, *RSC Advances* 6 (43), 36459-36466.
- 19-M Sookhakian, NA Ridwan, E Zalnezhad, GH Yoon, Majid Azarang, **M.R. Mahmoudian**, Y Alias, Layer-by-Layer Electrodeposited Reduced Graphene Oxide-Copper Nanopolyhedra Films as Efficient Platinum-Free Counter Electrodes in High Efficiency Dye-Sensitized Solar Cells, *Journal of The Electrochemical Society* 163 (5), D154-D159
- 20-Ramin Yousefi, **M.R. Mahmoudian**, Abdolhosain Sa, Mohsen Cheraghizade, Farid Jamali-Sheini, M Azarang, Effect of annealing temperature and graphene concentrations on photovoltaic and NIR-detector applications of PbS/rGO nanocomposites, *Ceramics International*, Volume 79, May 2016, Pages 113–118
- 21-**M.R. Mahmoudian**, Y Alias, WJ Basirun, Pei MengWoi, Farid Jamali-Sheini, M Sookhakian, M Silakhori ,A sensitive electrochemical nitrate sensor based on

polypyrrole coated palladium nanoclusters, *Journal of Electroanalytical Chemistry*, In Press, Accepted Manuscript

22-Mahyar Silakhori, Hadi Fauzi, **Mohammad R Mahmoudian**, Hendrik Simon Cornelis Metselaar, Teuku Meurah Indra Mahlia, Hossein Mohammad Khanlou, Preparation and thermal properties of form-stable phase change materials composed of palmitic acid/polypyrrole/graphene nanoplatelets, *Energy and Buildings*, 99, 2015, 189–195

23-**M. R. Mahmoudian**, Y. Alias, W.J. Basirun, Pei Meng Woi, M. Sookhakian, Farid Jamali-Sheini, Synthesis and characterization of Fe₃O₄ rose like and spherical/reduced graphene oxide nanosheet composites for lead (II) sensor, *Electrochimica Acta*, In Press, Accepted Manuscript, Available online 9 April 2015.

24-H Ghadimi, **M.R. Mahmoudian**, WJ Basirun, A sensitive dopamine biosensor based on ultra-thin polypyrrole nanosheets decorated with Pt nanoparticles, *RSC Advances* 5 (49), 39366-39374

25-F Jamali-Sheini, R Yousefi, NA Bakr, **M.R. Mahmoudian**, J Singh, Electrodeposition of Cu–ZnO nanocomposites: Effect of growth conditions on morphologies and surface properties, *Materials Science in Semiconductor Processing* 27, 507-514

26- Pooria Moozarm Nia, Woi Pei Meng^a, Farnaz Lorestani, **M.R. Mahmoudian**, Y. Alias, Electrodeposition of copper oxide/polypyrrole/reduced graphene oxide as a nonenzymatic glucose biosensor, *Sensors and Actuators B: Chemical*, Volume 209, 31 March 2015, Pages 100–108

27- Wan Jeffrey Basirun, Mehran Sookhakian, Saeid Baradaran, Zulkarnain Endut, **Mohammad Reza Mahmoudian**, Mehdi Ebadi, Ramin Yousefi, Hanieh Ghadimi, Sohail Ahmed, Graphene oxide electrocatalyst on MnO₂ air cathode as an efficient electron pump for enhanced oxygen reduction in alkaline solution, *Scientific Reports* 5, Article number: 9108

28- M.T. Tajabadi, W.J. Basirun^d, F. Lorestani, R. Zakaria, S. Baradaran, Y.M. Amin, **M.R. Mahmoudian**, M. Rezayi, M. Sookhakian, Nitrogen-doped graphene-silver nanodendrites for the non-enzymatic detection of hydrogen peroxide, *Electrochimica Acta*, Volume 151, 2015, 126–133

29-**M.R. Mahmoudian**, Y. Alias, W.J. Basirun, P.M. Woi, R. Yousefi, Synthesis of Polypyrrole Coated Silver Nanostrip Bundles and Their Application for Detection of Hydrogen Peroxide, *Journal of The Electrochemical Society* 161(2014) (9), H487-H492.

30. M. Sookhakian, Y.M. Amin, R. Zakaria, W.J. Basirun, **M.R. Mahmoudian**, B. Nasiri-Tabrizi, S. Baradaran, M. Azarang, Significantly improved photocurrent response of ZnS-reduced graphene oxide composites, *Journal of Alloys and Compounds*, In Press, Accepted Manuscript.

31. Mohsen Cheragizade, Ramin Yousefi, Farid Jamali-Sheini, **M. R Mahmoudian**, Abdolhossein Sa'aei, Nay Ming Huang, Synthesis and characterization of PbS

mesostructures as an IR detector grown by hydrogen-assisted thermal evaporation, **Materials Science in Semiconductor Processing**, 2014, 26, 704–709

32.Ramin Yousefi, Mohsen Cheragizade, Farid Jamali-Sheini, **M. R. Mahmoudian**, Abdolhossein Saaédi and Nay Ming Huang, Influences of anionic and cationic dopants on the morphology and optical properties of PbS nanostructures, **Chinese Phys. B**, 2014, 23.

33-T. Marimuthu, **M.R. Mahmoudian**, S. Mohamad, Y. Alias, Synthesis and characterization of non-enzymatic hydrogen peroxide sensor of polypyrrole coated cobalt nanocomposites, accepted **Sensors and Actuators B: Chemical**

34-**M. R. Mahmoudian**, Y. Alias, W.J. Basirun, Pei Meng Woi, M. Sookhakian, Facile preparation of MnO₂ nanotubes / reduced graphene oxide nanocomposite for electrochemical sensing of hydrogen peroxide, **Sensors and Actuators B: Chemical**, Volume 201, 1 October 2014, Pages 526-534

35-Farid Jamali-Sheini, Ramin Yousefi, **M. R. Mahmoudian**, Nabeel Ali Bakr, Facile synthesis of different morphologies of Te-doped ZnO nanostructures, **Ceramics International**, Volume 40, Issue 6, July 2014, Pages 7737-7743

36-**M. R. Mahmoudian**, Y. Alias, W.J. Basirun, Pei Meng Woi, S. Baradaran, M. Sookhakian, Synthesis, Characterization, and Sensing Applications of polypyrrole coated Fe₃O₄ nanostrip bundles, **Ceramics International**, Volume 40, Issue 7, Part A, August 2014, Pages 9265-9272

37-W.J. Basirun, M. Sookhakian, **M. R. Mahmoudian**, M. Ebadi, Solid-phase electrochemical reduction of graphene oxide films in alkaline solution, **Nanoscale Research Letters**, 2013, 8:397.

38.Farid Jamali-Sheini, Ramin Yousefi, **M. R. Mahmoudian**, Effect of annealing process on the growth and surface properties of Au–ZnO nanowire films grown by chemical routes, **Ceramics International**.(2013)39, pp.7577-7581

39- **M. R. Mahmoudian***, Y. Alias and W. J. Basirun. Synthesis of polypyrrole coated manganese nanowires and their application in hydrogen peroxide detection , **Materials chemistry and physics**.(2013)141, pp. 298-303

40- **M. R. Mahmoudian***, W. J. Basirun and Y. Alias. Effects of different polypyrrole/TiO₂ nanocomposite morphologies in polyvinyl butyral coatings for preventing the corrosion of mild steel. **Applied surface science**. (2013) 268 , pp. 302-311

41-A. Khorsand Zak, W.H. Abd. Majid, **M.R. Mahmoudian**, Majid Darroudi, Ramin Yousefi, Starch-stabilized synthesis of ZnO nanopowders at low temperature and optical properties study, **Advanced Powder Technology**, (2013) 24 (3) , pp. 618-624

42-**M. R. Mahmoudian***, Y. Alias, W. J. Basirun, ,Ramin Yosefi, Synthesis and characterization of Zinc/ Polypyrrole nanotube as a protective pigment in organic coatings, (2013) *Metallurgical and Materials Transactions A*.

43-**M. R. Mahmoudian***, W. J. Basirun and Y. Alias. Effect of narrow diameter polyaniline nanotubes and nanofibers in polyvinyl butyral coating on corrosion protective performance of mild steel. *Progress in organic coatings* (2013) 75 (4), pp. 301-308 (<http://dx.doi.org/10.1016/j.porgcoat.2012.08.004>)

44- S. Baradaran, W. J. Basirun, **M. R. Mahmoudian**, M. Hamdi, Y. Alias, Synthesis and characterisation of monetite in water/ethylene glycol/N,N-dimethylformamide mixed solvents by a sonochemical method, *Metallurgical and Materials Transactions A* (2012) 44 (5) , pp. 2331-2338

45- electrodeposited polypyrrole nanofibers between two layers of reduced graphene oxide nanosheets, (2012), *Electrochimica Acta*, 72, 53–60.(<http://dx.doi.org/10.1016/j.electacta>).

46-**M.R. Mahmoudian***, Y. Alias, W.J. Basirun, M.Ebadi, Preparation of ultra-thin polypyrrole nanosheets decorated with Ag nanoparticles and their application in hydrogen peroxide detection,(2012), *Electrochimica Acta*, 72 , 46-52 . (<http://dx.doi.org/10.1016/j.electacta>).

47-Ramin Yousefi, Farid Jamali-Sheini, A. Khorsand Zak, **M.R.Mahmoudian**, Effect of indium concentration on morphology and optical properties of In-doped ZnO nanostructures, *Ceramics International* 38 (2012) 6295–6301

48-**M. R. Mahmoudian***, W. J. Basirun and Y. Alias. (2012). Comparison of protection between double strands of polyaniline and poly o-anisidine with poly (acrylic acid- co- acryl amide) on steel. *Journal of Coatings Technology and Research*. 9 (1) 79–86

49-M. Ebadi,W. J. Basirun, S. Y. Leng and **M. R. Mahmoudian**, Investigation of Corrosion Inhibition Properties of Caffeine on Nickel by Electrochemical Techniques, *Int. J. Electrochem. Sci.*, 7 (2012) 8052 – 8063

50- M.Ebadi, W.J. Basirun, Y. Alias, **M.R. Mahmoudian**, S.Y. Leng, (2012) Investigation of electrodeposition of Ni-Co-Fe-Zn alloys in DMSO with MHD effect. *Materials Characterization* (66) 46-55

51-**M. R. Mahmoudian***, Y. Alias, W. J. Basirun and M. Ebadi. (2011). Poly (N-methyl pyrrole) and its copolymer with o-toluidine electrodeposited on steel in mixture of DBSA and oxalic acid electrolytes. *Current Applied Physics*. 11, 368-375

52-**M. R. Mahmoudian***, W. J. Basirun and Y. Alias. (2011). Synthesis and characterization of poly(N-methylpyrrole)/TiO₂ composites on steel. *Applied Surface Science*. 257, 3702–3708

- 53-**M. R. Mahmoudian***, W. J. Basirun and Y. Alias. (2011). Synthesis of polypyrrole/Ni-doped TiO₂ nanocomposites (NCs) as a protective pigment in organic coatings. *Progress in Organic Coatings*. 71 (1), 56-64
- 54- Mehdi Ebadi*, Wan Jeffrey Basirun, Yatimah Alias, **Mohammadreza Mahmoudian** 'Electrodeposition of Quaternary Alloys with High Saturation Magnetic Flux Density' *Chemistry Central Journal*, No; 2010, 4:14
- 55- Mehdi Ebadi*, Wan Jeffrey Basirun, Yatimah Alias, **Mohammad Reza Mahmoudian**. 'Normal and Anomalous co-deposition of Ni-Co-Fe-Zn Alloys from EMIC/EG in the presence of an external magnetic field' *Metallurgical and Materials Transactions A* Volume 42, Number 8, 2402-2410
- 56-**M. R. Mahmoudian***, Y. Alias and W. J. Basirun. (2011). Studies on the effects of the potential sweep rates and pH on the corrosion rate of polyaniline coated steel. *Advance materials research* (264 – 265), 463-468
51. **M. R. Mahmoudian***, W. J. Basirun, Y. Alias, M. Ebadi. (2011). Synthesis and characterization of Polypyrrole/ Sn-doped TiO₂ nanocomposites (NCs) as a protective pigment. *Applied Surface Science*. 257, 8317– 8325
- 57-Mehdi Ebadi*, Wan Jeffrey Basirun, Yatimah, **M. R. Mahmoudian**. Galvanostatic Electrodeposition of Ni-Co Alloys in DMSO under Magnetic Field. *South African Journal of Chemistry*, 2011, vol 64, 17 - 22
- 58- **M. R. Mahmoudian***, W. J. Basirun and Y. Alias. (2011).Electrochemical Characteristics of coated Steel with Poly (N-methyl pyrrole) Synthesized in presence of ZnO NPs. *Thin solid films* 520(1) 258-265.
- 59- **M. R. Mahmoudian***, Y. Alias and W. J. Basirun. (2011). Facile fabrication of Zn/Zn₅(OH)₈Cl₂. H₂O flower-like nanostructure on the surface of coated Zn with Poly (N-methyl pyrrole). *Applied Surface Science*. 257(24) 10539-10544
- 60-Yang Kok Kee, **M. R. Mahmoudian**, Mehdi Ebadi, Koay Hun Lee, Wan Jeffrey Basirun (2011), Diffusion coefficient of Tin (II) Methanesulfonate in Ionic Liquid and Methane Sulfonic Acid (MSA) solvent, *Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science* 42 (6) 1274-1279
- 61- Ramin Yousefi, A.K. Zak, **M. R. Mahmoudian** (2011) Growth and characterization of Cl-doped ZnO hexagonal nanodisks. *Journal of solid state chemistry*, 184, (10) 2678-2682
- 62-**M. R. Mahmoudian***, Y. Alias and W. J. Basirun. (2010). Electrodeposition of (pyrrole-co-phenol) on steel surfaces in mixed electrolytes of oxalic acid and DBSA. *Materials Chemistry and Physics*, 124 (2-3), 1022-1028
- 63- M Ebadi, WJ Basirun, Y Alias, **M.R. Mahmoudian**, Evaluation of nickel-cobalt deposition through the electrochemical impedance spectroscopy under magnetic field, *Galvanotechnik* 102 (6), 1265

(international conferences) :

1-**M. R. Mahmoudian***, Y. Alias and W. J. Basirun. (2009). International Conference of advances in materials and processing technologies (AMPT'09), Kuala Lumpur, Malaysia. Oral presentation and co-chair.

2-**M. R. Mahmoudian***, Y. Alias and W. J. Basirun. (2009). Regional Conference on Ionic Liquids 2009, University of Malaya Kuala Lumpur, Malaysia. Oral presentation

3-M. R. Mahmoudian*, **Y. Alias and W. J. Basirun. (2010). 3rd International Conference on Functional Materials and Devices (ICFMD)**