CURRICULUM VITAE
MOHAMMAD RAFIENIA

CONTACT INFORMATION

Professor
Mohammad Rafienia

Phone: +98 31 7923856
Email: m_rafienia@med.mui.ac.ir

CURRENT STATUS

Department of Biomaterials, Nanotechnology and Tissue Engineering, School of Advanced Technologies in Medicine, Isfahan University of Medical Sciences, Isfahan, Iran

EDUCATIONAL BACKGROUND

2001 - 2007	PhD in Biomedical Engineering: Biomaterial (Drug Delivery Systems) Amirkabir University of Technology
1998 - 2001	MSc in Biomedical Engineering: Biomaterial Amirkabir University of Technology
1994 - 1998	BSc in Material Engineering: Metal Casting Isfahan University of Technology

COURSES TAUGHT

DRUG DELIVERY SYSTEMS, METAL BIOMATERIALS, BIOCOMPATIBILITY, BIOLOGICAL EZAMES, STATIC, TERMODYNAMIC AND HEAT TRANSFERING, DRAWING, PHYSIC FOR ANESTHETIZING, SEMINAR, ….

PROFESSIONAL EXPERIENCES

- Head of biosensor reaserch center
- Head of Department of Biomaterials, Nanotechnology and Tissue Engineering
- The best researcher in Isfahan
- The best researcher in Isfahan university of medical sciences
- Etc

RESEARCH PROJECTS

2018-2019 **Fabrication and characterization of bone tissue engineering scaffold based on novel gehlenite nanobioceramic by replication method and implemented a system for measuring its mechanical properties**
Members: Mohammad Rafienia, Saeed Kermani, Amir Hamed Aghajanian, Ashkan Bigham
Authority: Isfahan University of Medical Sciences

2018-2019 **Assessing treated sciatic nerve damage in rats with electrospun poly(glycerol sebacate)/poly(vinyl alcohol) / lignin scaffold and evaluation of nerve regeneration using the neural sensor**
Members: Mohammad Rafienia, Ahmad Saudi, Shahram Amini, Hosein Salehi, Nooshin Amir pur
Authority: Isfahan University of Medical Sciences

2018-2019 **Application of Gellan Gum/Carbon Nanotube Nanocomposite Hydrogels in Biosensors**
Members: Mohammad Rafienia, Mehdi Mehdi Khani, Seyed Mohammad Zargar
Authority: Isfahan University of Medical Sciences

2018-2019 **Synthesis and Characterization of Physical, Chemical, Mechanical and Biological Properties of Lignin Based Polyurethane Scaffolds Fabricated by 3D Printing/Near Field Electrospinning for Tissue Engineering Application**
Members: Mohammad Rafienia, Zari Pahlevan neshan, Seyed Ali Pursamar
Authority: Isfahan University of Medical Sciences

2017-2019 **Development a new non-enzymatic electrode based on Ti-Metallic Glass/CNT nonocamposites at glucose biosensors**
Members: Mohammad Rafienia, Mohsen Saraf, Hamid Reza Kaviani
Authority: Isfahan University of Medical Sciences, Biosensor Reaserch Center

2017-2018 **Fabrication and characterization of 3D scaffolds from novel gehlenite nanobioceramic to be applied in bone tissue engineering**
Members: Mohammad Rafienia, Zari Pahlevan neshan, Hamed Aghajanian
Authority: Isfahan University of Medical Sciences

2016-2018 **Electrophoretic deposition of rifampin loaded mesoporous magnesium silicate on surface-modified titanium substrate for orthopedic applications**
Members: Mohammad Rafienia, Ahmad Saudi, Ashkan Bigham, Shahram Rahmati
Authority: Isfahan University of Medical Sciences

2017-2018 **Fabricationand characterizationof poly(vinyl alcohol)/nanohydroxy apatite electrospun nanocomposite scaffolds reinforced by cellulose nanofibers for bone tissue engineering application**
Members: Mohammad Rafienia, Zari Pahlevan neshan, Mohammad Saeed Enayati
Authority: Isfahan University of Medical Sciences

2017-2018 **Evaluation of hydrogel wound dressing biological properties based on starch, hyaluronic acid and propolis to repair scar cutaneous leishmaniasis**
Members: Mohammad Rafienia, Asghar Eskandary nia
Authority: Isfahan University of Medical Sciences

2017-2018 **Bioactivity Evaluation of Novel Gehlenite Bioceramic in Comparison with Hydroxyapatite for Bone Tissue Engineering Applications**
Members: Mohammad Rafienia, Ashkan Bigam, Ahmad Soudi
Authority: Isfahan University of Medical Sciences

2017-2018 **Laboratory evaluation of corrosion resistance of coating deposited by**

	electrophoretic deposition on the plasma electrolytic oxidation surface modified titanium substrate to be applied in bone tissue engineering *Members:* Mohammad Rafienia, Ashkan Bigam, Ahmad Soudi, Shahram Rahmati *Authority*: Isfahan University of Medical Sciences
2016-2017	**Evaluation Of Mechanical, Physical And Biological Properties Of Hydroxyapatite/Copper oxide and copper Nanocoat Composites on the Ti-6Al-4V Alloy fabricated by electrophoretic method For Bone Tissue Engineering** *Members:* Mohammad Rafienia, Zahra Mohamamd Alizadeh *Authority*: Isfahan University of Medical Sciences
2016-2017	**Fabrication and characterization of poly(vinyl alcohol)/nanohydroxy apatite electrospun nanocomposite scaffolds reinforced by cellulose nanofibers for bone tissue engineering application** *Members:* Mohammad Rafienia, Zari Pahlevan neshan, Mohamamd Saeed Enayati *Authority*: Isfahan University of Medical Sciences
2015-2017	**Conjucation and optimization of specific aptamer for aflatoxin to polymer nano quantum dot** *Members:* Mohammad Rafienia, Saeed Karbasi, Vahid Nasirian *Authority*: Isfahan University of Medical Sciences, Biosensor Reaserch Center
2015-2017	**Preparation of fluorescent biosensors for rapid determination of aflatoxin by conjucationed plymer quantum dot - aptamer** *Members:* Mohammad Rafienia, Vahid Nasirian *Authority*: Isfahan University of Medical Sciences, Biosensor Reaserch Center
2015-2017	**Improving antiproliferative effect of Methotrexate by conjugation to corbone dot nanoparticles** *Members:* Mohammad Rafienia, Vahid Nasirian, Mohamamd Reza Salamat *Authority*: Isfahan University of Medical Sciences, Biosensor Reaserch Center
2013-2014	**Evaluation of effect of Poly hydroxyl butyrate nanoparticles loaded with simvastatin on stimulating of stem cells and regeneration of apical periodontitis teeth (In vivo study)** *Members:* Mohammad Rafienia, Maziar Ebrahimi Dastgerdi, Mansureh Satari *Authority*: Iranian council of stem cell technology
2013-2014	**In vitro biocompatibility assessment of hyper branched polyglycerol coated Fe_3O_4 nanoparticles** *Members:* Mohammad Rafienia, Ali Zarabi, Atefeh Zaree Pur *Authority*: Isfahan University of Medical Sciences, Biosensor Reaserch Center
2013-2014	**Electrochemical Determination of Curcumin on the surface of Glassy Carbon Electrode Modified with Graphen Based Nanocomposite.** *Members:* Mohammad Rafienia, Ali Zarabi, Behzad Mirzaee *Authority*: Isfahan University of Medical Sciences, Biosensor Reaserch Center
2013-2014	**Preparation and characterization of nano-composite membrane based on Polycaprolactone and bioactive glass nanoparticles containing Cu.** *Members:* Shiva Soltani, Mohammad Rafienia, Mehdi Mehdi khani, Shahin Bonakdar, Ali Dust Modammadi *Authority*: Iran National Science Foundation (INSF)
2012-2014	**Evaluation of mesenchymal stem cell differentiation into chondrocyte on silk-based scaffold containing chitosan nanoparticles** *Members:* Mohammad Rafienia, Mohammad Hosein Fathi, Mitra Naee mi, Shahin Bonakdar *Authority*: Iran National Science Foundation (INSF)
2012	**Evaluation of nano barium titanate coating as a piezoelectric coating on histologic and histomorphometric analysis of bone around dntal implants**

in animal samples
Members: Mohammad Rafienia, Jaber Yaghini, Satar Kabiri, seyed Saeed Hoseini
Authority: Iran National Science Foundation (INSF)

2013-2014 **Fabrication of tissue engineering scaffold from nanocomposite of starch–cellulose nanofibers and investigation of its properties**
Members: Mohammad Rafienia, Mohammad Mehr Asa, Bijan Nasri
Authority: Isfahan University of Medical Sciences

2013-2014 **Synthesis of nanofiber bioactive glass by sol-gel and electro-spinning processes as tissue-engineering scaffolds**
Members: Mohammad Rafienia, Jaleh Amirian, Hosein Salehi, Behruz Movahedi
Authority: Isfahan University of Medical Sciences

2012-2014 **Fabrication of Poly hydroxybutyrate-Polyethylene glycol-Folic acid nanoparticles loaded by paclitaxel for drug targeting to cancer cells**
Members: Mohammad Rafienia, Mansureh Satari
Authority: Isfahan University of Medical Sciences, Biosensor Reaserch Center

2011-2012 **Fabrication and evaluation properties of Poly hydroxy butyrate micro and nanoparticles**
Members: Mohammad Rafienia, Mansureh Satari
Authority: Isfahan University of Medical Sciences

2011-2012 **Synthesis and characterization of MCM-48/Hydroxyapatite nano composite to use in drug delivery system**
Members: Mohammad Rafienia, Saed Karbaci, Hoda Aghaee
Authority: Isfahan University of Medical Sciences

2009 -2011 **Investigation of manufacturing polymer coated urethral catheter containing antibacterial drug (gentamicin) for reducing hospital infection**
Members: Mohammad Rafienia, Saed Karbaci, Naser Tavakoli
Authority: Isfahan University of Medical Sciences

2005-2007 **A Study about Extraction of Hyaluronic Acid from Cockscomb**
Members: Mohammad Rafienia, Fariba Orang, Hamid Mirzadeh
Authority: Amirkabir University of Technology

2005 - 2007 **Manufacture of In situ Forming Systems based on PLGA as corticosteroid Drugs Delivery System**
Members: mohammad Rafienia, Hamid Mirzadeh, Hamid Mobedi, Ahmad Jamshidi
Authority: Iran Polymer and Petrochemical Institute

2003 - 2004 **Synthesis and characterization of Polyurethane Biomedical Grade for Medical Applications**
Members: Mohammad Rafienia, Fariba Orang
Authority: Amirkabir University of Technology

2000 - 2004 **Strategic Research about applications of Controlled Release Technology in Drug, Food and Agriculture Industries**
Members: Mohammad Rafienia, Shahriar Sharifi, Dr. Rafie, Amin mansur
Authority: Ministry of Science, Research and Technology

2001 - 2003 **Investigation of Effects of Porosity and Morphology on Release Behavior of Biological Agents from Polyurethane Microspheres**
Members: Mohammad Rafienia, Fariba Orang
Authority: Amirkabir University of Technology

PUBLICATIONS

A) CONFERENCES

2018 **In vitro assessment of aligned electrospun poly (vinyl alcohol)/ poly(glycerol sebacate)/ lignin nanofibrous for peripheral nervous tissue**
Conference: 1st International Iranian Tissue Engineering and Regenerative Medicine Congress (Iran) July 18-20 2018
Authors: Ahmad Saudi, Shahram Amini, **Mohammad Rafienia**, Hossein Salehi

2018 **Electrospinning of polycaprolactone/lignin nanofibrous for neural tissue engineering: an in vitro study**
Conference: 1st International Iranian Tissue Engineering and Regenerative Medicine Congress (Iran) July 18-20 2018
Authors: Shahram Amini, Ahmad Saudi, Hossen Salehi, **Mohammad Rafienia**, Hossein Abbastabar

2016 **Fabrication and evaluation of nanofiber of gelatin-silk-tyrosine for cartilage tissue engineering**
Conference: 3rd Iranian Congress On Progress In Tissue Engineering And Regenerative Medicine (Iran) 19-20-21 October 2016
Authors: M. Agheb**, M. Rafienia,** M. Dinari

2016 **Physical and antimicrobial properties of starch based film containing ethanolic propolis extract for biomedical applications**
Conference: The 1st International and 3rd national congress of wound and tissue repair (Iran) 26,27, 28 October 2016
Authors: A. Eskandarinia**, M. Rafienia**, S. Navid

2016 **Evaluation of structured parameters of electrospining and solvent casting of polyhydroxybutyrate nano scaffold for cartilage tissue engineering**
Conference: 7th International Congress on Nanostructures
(Iran) 24,25 May 2016
Authors: M.S. Enayati, T. Behzad, P. Sajkiewicz, **M. Rafienia,** R. Bagheri, L. Ghasemi-Mobarakeh

2016 **Fabrication and evaluation of nanofiber of gelatin-silk-tyrosine for cartilage tissue engineering**
Conference: 3rd Iranian congress on progress in tissue engineering and regenerative medicine 19-21 October 2016, Tehran, Iran (Oral)
Authors: maria agheb, **mohammad Rafienia**, mohammad dinari

2016 **Physical and antimicrobial properties of starch based film containing ethanolic propolis extract for biomedical application**
Conference: 3rd Iranian congress on progress in tissue engineering and regenerative medicine 19-21 October 2016, Tehran, Iran (Oral)
Authors: Asghar Eskandarinia, Mohammad Rafienia, Navid Sepehr

2016 **Fabrication of Poly hydroxybutyrate-Polyethylene glycol-Folic acid nanoparticles loaded by Paclitaxel and release survey of drug for drug targeting to cancer cells**
Conference: International conference on enginnering and applied sciences, Dubay, 10 March 2016 (Poster)
*Authors:*Fatemeh Rezaee, **Mohammad Rafienia**, Hamid Keshvari

2015 **Antibacterial activity of sol-gel derived copper-incorporated and copper free bioactive glass nanoparticles on a gram-positive bacterium**
Conference: 5th International Congress on Nanoscience & Nanotechnology (ICNN2014) (Oral)
Authors: Sh. Soltani-Dehnavi, M. Mehdikhani-Nahrkhalaji, **M. Rafienia**, A. Doostmohammadi

2014 **Fabrication and evaluation of nanofiber of gelatin-silk-tyrosine for cartilage tissue engineering**
Conference: 5th International congress on nanoscience and nanotechnology (Tehran- Iran),

October 22-24 2014
Authors: S. Soltani-Dehnavi, M. Mehdikhani-Nahrkhalaji, M. Rafienia, A. Doostmohammadi

۱۳۹۴ ساخت و ارزیابی خواص داربست مهندسی بافت استخوان بر پایه کامپوزیت پلی کاپرولاکتون/ژلاتین/شیشه زیست‌فعال
چهارمین کنفرانس بین المللی مواد مهندسی و متالورژی و نهمین همایش مشترک انجمن مهندسی مواد و متالورژی ایران و جامعه ریخته گری ایران، ۱۹ و ۲۰ آبان ۱۳۹۴
کیوان شیرانی، سید محمد صادق نوربخش، **محمد رفیعی‌نیا**، داریوش سمنانی

۱۳۹۳ ساخت نانوذرات و بررسی رهایش دارو از نانوذرات پلی هیدروکسی بوتیرات-پلی اتیلن گلیکول-اسید فولیک بارگذاری شده با داروی پاکلی تاکسل
پانزدهمین کنگره ملی مهندسی شیمی ایران، ۲۸ تا ۳۰ بهمن ۱۳۹۳
فاطمه رضایی، **محمد رفیعی‌نیا**، حمید کشوری، منصوره ستاری، حسین کیوانی

۱۳۹۴ کاربرد داربست نانوکامپوزیتی فیبروئین ابریشم در مهندسی بافت
علوم و فناوری نانو، ۳۰ و ۳۱ اردیبهشت ۱۳۹۴
ماریا عاقب، میترا نعیمی، **محمد رفیعی‌نیا**

2012 **Synthesis of nanofiber ceramic bioactive glass by sol-gel and electro-spinning processesusing PVA as tissue-engineering scaffolds**
Conference: ISPST2012, Amirkabir University of Technology, Tehran, Iran, 21-25 October 2012, (Poster)
Authors: Jhaleh Amirian, Behrooz Movahedi, **Mohammad Rafienia**

2012 **Synthesis of Poly hydroxybutyrate-Polyethylene glycol-Folic acid (PHB-PEG-FOL) nanoparticles for targeted drug delivery**
Conference: ISPST2012, Amirkabir University of Technology, Tehran, Iran, 21-25 October 2012, (Poster)
Authors: Mohammad Rafienia, Mansooreh sattari, Hamid Mobedi, Mohammad Mahmoudzadeh, Afshin Fassihi

۱۳۹۰ **تهيه نانوذرات پلي هيدروكسي بوتيرات اصلاح سطحي شده براي داروررساني هدفمند به سلولهاي سرطاني**
Conference:دومين كنگره نانوداروها-دانشگاه علوم پزشكي جندي شاپور اهواز-۱۶-۱۸ اسفند ۱۳۹۰
Authors:منصوره ستاري، محمد رفيعي نيا، حميد موبدي، افشين فصيحي، محمد محمودزاده

2011 **Preparation of biodegradable PHB nano-particles for drug delivery system**
Conference: 5th Iranian Controlled Release Conference. 2011; (Poster)
Authors: Mansooreh Satari, Mohammad Rafienia, Hamid Mobedi, Mohsen Janmaleki

2010 **بررسي خواص شيشه سراميک سيستم ليتيم دي سيليکات با افزودن عامل جوانه زاي اکسيدنيوبيوم**
Conference: 17th Iranian Conference on Biomedical Engineering (ICBME). 2010; (Poster)
Authors: منصوره ستاري، امير عباس نوربخش، پريسا گوهريان، محمد رفيعي نيا

2010 **بررسي ساخت سوندهاي مجاري ادرار با پوشش پليمري حاوي داروي ضد باکتري جنتامايسين به منظور کاهش عفونتهاي بيمارستاني (آزمون In Vitro)**
Conference: 17th Iranian Conference on Biomedical Engineering (ICBME). 2010; (Speech)
Authors: محمد رفيعي نيا، حسن زرين مهر، علي پورثمر، عليرضا خاوندي، محسن جانملکي

2009 **Application Potentials of Microwave in NanoMagnetic Particle Hyperthermia**
Conference: World Congress on Medical Physics and Biomedical Engineering 2009. (Speech)
Authors: M. Janmaleki, M. Mahmoudi, M. Rafienia, and H. Peirovi

2009 **Effect of Polymer Molecular Weight on Morphology and Particle Size of Chitosan Microspheres Prepared via Spray Drying Method**
Conference: World Congress on Medical Physics and Biomedical Engineering 2009. (Speech)
Authors: S. Taranejoo, M. Rafienia, M. Janmaleki, M. Kamali, L. Sadeghzadeh

2009 **Estimation of Betamethasone Release Profiles from an in Situ Forming System Based on the Biodegradable Polymer Using Artificial Neural Networks**
Conference: World Congress on Medical Physics and Biomedical Engineering 2009. (Speech)
Authors: M. Amiri, M. Rafienia and A. Sadeghian

2009 **In vitro/in vivo studies of betamethasone loaded in situ forming a polylactide- co-glycolide system**
Conference: 36th Annual Meeting & Exposition of the Controlled Release Society. 2009;

(Speech)
Authors: A Momeni, M Rafienia, H Mobedi

2009 **Simulation of betamethasone release profiles from in situ forming systems based on PLGA**
Conference: 32nd Conference of the Canadian Medical and Biological Engineering Society (CMBEC32). 2009; (Speech)
Authors: Saman Hossein Sarraf, Ehsan Marzbanrad, Hamid Mobedi, Mohammad Rafienia, Hamid Mirzadeh, Ahmad Jamshidi

2008 **Application of Artificial Neural Network in Prediction of Betamethasone Release Profiles from an in Situ Forming System Based on the Biodegradable Polymer (PLGA75/25)**
Conference: Biomedical Engineering 2008 (BioMed 2008). 2008; (Speech)
Authors: mohammad Rafienia, Mahmud Amiri, Hamid Mirzadeh

2008 **Effect of Freezing and Thawing Process on Betamethasone Release from Polyvinyl alcohol Nanospheres**
Conference: Nanocomposite materials. 2008; (Poster)
Authors: Shahin Bonakdar, Seyed Ali Poursamar, Mohammad Rafienia, Motahareh Hosseini, Mohammad Ali Shokrgozar

2007 **A Comparative Study of Physical-Mechanical Properties, Cytotoxicity and Platelet Adhesion of Biomedical Polyurethane Elastomers**
Conference: ISPST 8th International Seminar on Polymer Science and Technology. 2007; (Speech)
Authors: S. Bonakdar, F. Orang, M. Rafienia, A. Navvabzadeh

2007 **Comparison of the Effect of Hydrophilicity on Biocompatibility and Platelet Adhesion of Two Different Kinds of Biomaterials**
Conference: Iran's 1st International Conference on Biomaterials. 2007; (Speech)
Authors: Shahin Bonakdar, Fariba Orang, Mohammad Rafienia, Rana Imani

2007 **Gamma irradiation effects on the release of betamethasone acetate from the biodegradable in situ forming systems**
Conference: The 3rd Iranian Conference of Novel Drug Delivery Systems. 2007; (Speech)
Authors: M. Rafienia, A. Jamshidi, H. Mirzadeh, H. Mobedi

2007 **Gamma irradiation effects on the release of betamethasone from the biodegradable in situ forming systems**
Conference: ISPST 8th International Seminar on Polymer Science and Technology. 2007; (Speech)
Authors: M. Rafienia, H. Mirzadeh, H. Mobedi and A. Jamshidi

2007 **Influence of poly(lactide-co-glycolide) type and gamma irradiation on the betamethasone acetate release from in situ forming systems**
Conference: 34th Annual Meeting & Exposition of the Controlled Release Society. 2007; (Poster)
Authors: Mohammad Rafienia, Hamid Mobedi, Hamid Mirzadeh, Ahmad Jamshidi

2007 **Investigating Some Effective Parameters in Betamethasone Release Rate from In Situ Forming systems**
Conference: 15th Iranian Seminar of Analytical Chemistry (ISAC 15). 2007; (Speech)
Authors: M. Khanmohammadi. H. Nemati, M. Rafienia, A. Jamshidi

2007 **Investigation of drug release and 1H-NMR analysis of the in situ forming systems based on poly(lactide-co-glycolide)**
Conference: ISPST 8th International Seminar on Polymer Science and Technology. 2007; (Speech)
Authors: Z. Mohamadnia, E. Ahmadi, M. Rafienia, H. Mobedi, A. Nouri

2007 **Micro particles formation, characterization and application of biodegradable Polyurethane for Controlled Released of Theophiline**
Conference: TMS, 2007. 2007; (Speech)
Authors: M. Mahmoudi, F. Orang, M. Rafienia

2007 **Preparation and Evaluation of Blood Compatibility of Novel Epoxy-Modified Polyurethanes, Iran's 1st International Conference on Biomaterials**
Conference: Iran's 1st International Conference on Biomaterials. 2007; (Poster)
Authors: Atefeh Solouck, Hamid Yeganeh, Mohammad Rafienia, Fariba Orang

2007 **Preparation Of Patches For Transdermal Delivery Of Glucosamine Hcl For Treatment Of Osteoarthritis**
Conference: Iran's 1st International Conference on Biomaterials. 2007; (Speech)
Authors: Hossein Zehtab Minooei, Soheila Salahshoore Kordestani, Fathollah Moztarzade, Mohammad Naghie Tahmasbi, Mohammad Rafienia

2007 **Synthesis and characterization of biodegradable hemostas gelatin sponge for application on surgery**
Conference: Iran's 1st International Conference on Biomaterials. 2007; (Speech)
Authors: Rana Imani, Mohammad Rafienia

2006 **Controlled delivery of Betamethasone from injectable in situ forming biodegradable PLGH system (In vitro study)**
Conference: 10th Iranian Pharmaceutical Sciences Conference (IPSC 2006). 2006; (Speech)
Authors: Rafienia M., Mirzade H., Mobedi H., Jamshidi A., Bonakdar S.

2006 **Evaluation of Ceftriaxone release from microspheres based on starch**
Conference: 8th national Congress of Microbiology. 2006; (Poster)
Authors: Leila Sadeghzadeh, Fariba Orang, Parvize Olia, Mohamade Rafienia, Shahine Bonakdar

2006 **اثر نشاسته بر مورفولوژي و اندازه گيري رفتار رهايش ميكروسفرهاي پلي يورتان حاوي داروي تئوفيلين تهيه شده به روش تبخير حلال**
Conference: يازدهمين كنفرانس مهندسي پزشكي 2006 (Speech)
Authors: محمد رفيعي نيا، مرتضي محمودي، شهريار حجتي امامي، فريبا اورنگ

2006 **تاثير تابش گاما و ماده افزودني بر آزاد سازي داروي بتامتازون از سيستم دارورساني زيست تخريب پذيري تشكيل شونده در محل**
Conference: يازدهمين كنفرانس مهندسي پزشكي 2006 (Speech)
Authors: عاطفه پورجاهد، محمد رفيعي نيا، احمد جمشيدي، احمد جمشيدي

2006 **تعيين خصوصيات ميكروسفرهاي نشاسته حاوي داروي سفترياكسون و ارزيابي اثرات ضد ميكروبي آن**
Conference: يازدهمين كنفرانس مهندسي پزشكي 2006 (Speech)
Authors: محمد رفيعي نيا، ليلا صادق زاده، شاهين بنكدار، فريبا اورنگ

B) JOURNAL PAPERS

١- اثر تغيير تركيب شيميايي بر رفتار رهايش و مورفولوژي ميكروسفرهاي پلي يورتان تهيه شده به روش تبخير حلال
Journal: مجله مهندسي پزشكي زيستي، دوره اول، شماره دوم، زمستان ١٣٨٣، ١٧٣-١٨٠
Authors: فريبا اورنگ، **محمد رفيعي نيا**

2- **Preparation and Characterization of Polyurethane Microspheres Containing Theophiline**
Journal: Journal of Bioactive and Compatible Polymers. 2006;21(9):341-349
Authors: **Mohammad Rafienia**, Fariba Orang and Shahriar Hojjati Emami

3- **In Vitro Evaluation of Drug Solubility and Gamma Irradiation on the Release of Betamethasone under Simulated In Vivo Conditions**
Journal: Journal of Bioactive and Compatible Polymers. 2007;22(4):443-459
Authors: **Mohammad Rafienia**, Hamid Mirzadeh, Hamid Mobedi, Ahmad Jamshidi

4- **Evaluation of Ceftriaxone Releasing from Microspheres Based on Starch Against Salmonella spp.**
Journal: Biotechnology. 2007;6(4):597-600
Authors: Parviz Owlia, Leila Sadeghzadeh, Fariba Orang, **Mohammad Rafienia** and Shahin Bonakdar

5- **Synthesis and Characterization of Biodegradable Hemostat Gelatin Sponge for Surgery**

Application
Journal: Iranian Journal of Pharmaceutical Sciences. 2008;4(3):201-208
Authors: Rana Imani, **Mohammad Rafienia**, Shahriar Hojjati Emami, Maryam Kabiri, Mohsen Rabbani

6- **Preparation and Evaluation of Blood Compatibility of Novel Epoxy-Modified Polyurethanes**
Journal: Iranian Journal of Pharmaceutical Sciences. 2008;4(4):281-288
Authors: Atefeh Solouck, Hamid Yeganeh, **Mohammad Rafienia**, Fariba Orang

7- **Investigation of drug release from biodegradable polymeric delivery system by infrared spectrometry**
Journal: International Journal of Polymer Analysis and Characterization. 2008;13(5):353-368
Authors: Mohammadreza Khanmohammadi, Hossien Nemati, **Mohammad Rafienia**, Ahmad Jamshidi, Amir Bagheri Garmarudi

8- **A Study of Starch Addition on Burst Effect and Diameter of Polyurethane Microspheres Containing Theophiline**
Journal: Polymers for Advanced Technologies. 2008;19(3):167-170
Authors: Morteza Mahmoudi, Fariba Orang and Shahriar Hojjati Emami, **Mohammad Rafienia**

9- **Synthesis, Characterization and Preliminary Investigation of Blood Compatibility of Novel Epoxy-modified Polyurethane Networks**
Journal: Journal of Bioactive and Compatible Polymers. 2008;23(3):276-300
Authors: Hamid Yeganeh, Fariba Orang, Atefeh Solouk, and **Mohammad Rafienia**

10- **Comparison of the effect of hydrophilicity on biocompatibility and platelet adhesion of two different kinds of biomaterials**
Journal: Iranian Journal Of Pharmaceutical Sciences. 2008;4(1):37-44
Authors: Bonakdar Shahin,Orang Fariba, **Rafieinia Mohamamd**, Imani Rana

11- **Influence of Poly (lactide-co-glycolide) Type and Gamma Irradiation on the Betamethasone Acetate Release from the In Situ Forming Systems**
Journal: Current Drug Delivery. 2009;6(2):184-191
Authors: **Mohammad Rafienia**, Shahriar Hojjati Emami, Hamid Mirzadeh, Hamid Mobedi, Saeed Karbasi

12- **Effect of Freezing and Thawing Process on Betamethasone Acetate Release from Polyvinyl alcohol Nanospheres**
Journal: Solid State Phenomena. 2009;151:159-165
Authors: Shahin Bonakdar, Seyed Ali Poursamar, **Mohammad Rafienia**, Mohammad Shokrgozar, Afshin Farhadi, Motahhareh Hosseini

13- **Investigation of drug release and ^{1}H-NMR analysis of the in situ forming systems based on poly(lactide-co-glycolide)**
Journal: Polymers for Advanced Technologies. 2009;20(1):48-57
Authors: Z. Mohamadnia, E. Ahmadi, **M. Rafienia**, H. Mirzadeh and H. Mobedi

14- **Application Of Artificial Neural Networks In Controlled Drug Delivery Systems**
Journal: Applied Artificial Intelligence: An International Journal. 2010;24(8):807-820
Authors: **Mohammad Rafienia**; Mahmood Amiri; Mohsen Janmaleki; Alireza Sadeghian

15- **Preparation and characterization of absorbable hemostat crosslinked gelatin sponges for surgical applications**
Journal: Current Applied Physics. 2011;11(3):457-461
Authors: Kabiri, M., Emami, S.H., **Rafinia, M.**, Tahriri, M.

16- **Chitosan microparticles loaded with exotoxin A subunit antigen for intranasal vaccination against Pseudomonas aeruginosa: An in vitro study**
Journal: Carbohydrate Polymers. 2011;83(4):1854-1861
Authors: Shahrouz Taranejooa, Mohsen Janmalekia, **Mohammad Rafienia**, Mahdi Kamalic and Maysam Mansouri

17- **The effects of vitamin E and selenium on cisplatininduced nephrotoxicity in cancer patients treated with cisplatin-based chemotherapy: A randomized, placebo-controlled**

study
Journal: Journal of Research in Medical Sciences. 2012; Special Issue (1):49-58.
Authors: Simin Hemati, Nafiseh Arbab Jolfaie, Nafiseh Arbab Jolfaie, **Mohammad Rafienia**, Mohammadreza Ghavamnasiri

18- **Coated urinary catheter by PEG/PVA/gentamicin with drug delivery capability against hospital infection**
Journal: Iranian Polymer Journal, (2013) 22:75-83
Authors: **Mohammad Rafienia**, Babak Zarinmehr, Seyed Ali Poursamar, Shahin Bonakdar, Mahdi Ghavami, Mohsen Janmaleki

19- **Synthesis and characterization of glutaraldehyde-based crosslinked gelatin as a local hemostat sponge in surgery: an in vitro study**
Journal: Bio-Medical Materials and Engineering, (2013) 23:211-224
Authors: Rana Imani, **Mohammad Rafienia**, Shahriar Hojjati Emami

20- **In-Vitro Effects of Copper Nanoparticles on Common Bacterial Strains Implicated in Nosocomial Infections**
Journal: Journal of Isfahan Medical School, Vol. 31, No. 240, 2nd Week, August 2013
Authors: Elham Yousefi, **Mohammad Rafienia**, Hossein Fazeli, Mohammad Zaman Kasai

21- **Comparing the Effect of Silk Fibroin-Based Scaffolds on Differentiation of Rabbit Chondrocytes**
Journal: Journal of Isfahan Medical School, Vol. 32, No. 286, 3rd Week, July 2014
Authors: Mitra Naeimi, Mohammadhossein Fathi, **Mohammad Rafienia**, Shahin Bonakdar

22- **Double-walled microspheres loaded with meglumine antimoniate: Preparation, characterization and in vitro release study**
Journal: Drug Development and Industrial Pharmacy, (2014) 40 (6): 701-710
Authors: Ali Navaei, Morteza Rasoolian, Arash Momeni, Shahriar Emami, **Mohammad Rafienia**

23- **Investigation on bioactivity and cytotoxicity of mesoporous nano-composite MCM-48/hydroxyapatite for ibuprofen drug delivery**
Journal: Drug Development and Industrial Pharmacy, (2014) 40 (5):7355-7362
Authors: Hoda Aghaei, Amir Abbas Nourbakhsh, Saeed Karbasi, Roozbeh JavadKalbasi, **Mohammad Rafienia**, Nosrat Nourbakhsh, Shahin Bonakdar, Kenneth J.D. Mackenzie

24- **Porous starch/cellulose nanofibers composite prepared by salt leaching technique for tissue engineering**
Journal: Carbohydrate Polymers 108 (2014) 232–238
Authors: Bijan Nasri-Nasrabadi, Mohammad Mehrasa, **Mohammad Rafienia**, Shahin Bonakdar, Tayebeh Behzad, Shahin Gavanji

25- **Silk Fibroin-Chondroitin Sulfate-Alginate Porous Scaffolds: Structural Properties and In Vitro Studies**
Journal: Journal of Applied Polymer Science (2014) 131 (21) 41048-41057
Authors: Mitra Naeimi, Mohammadhossein Fathi, **Mohammad Rafienia**, Shahin Bonakdar

۲۶- **ساخت و ارزیابی داربست ابریشم-کیتوسان به عنوان ابزار کشت سه بعدی سلول های شبه استخوانی**
مجله: مجله دانشکده پزشکی اصفهان، سال ۳۳، شماره ۳۴۲، شهریور ۱۳۹۴
نویسندگان: شاهین روحی، محمد رفیعی‌نیا، حسین صالحی، الهه پورعزیزی

۲۷- **سنتز و ارزیابی سمیت سلولی نانوالیاف شیشه‌ی زیستی تهیه شده به روش الکتروریسی جهت ساخت داربست مهندسی بافت**
مجله: فرآیندهای نوین در مهندسی مواد، سال ۹، شماره ۳، پاییز ۱۳۹۴
نویسندگان: ایمان یزدانی چم زینی، محمد رفیعی نیا، بهروز موحدی، حسین صالحی

۲۸- **سنتز الکتروشیمیایی فیلم متخلخل نانوذرات نیکل اکسید در محیط اسیدی: کاربرد در ساخت حسگر پارانیتروفنل**
مجله: نظام تحقیقات سلامت، ۱۳۹۵، ۱۲ (۳)، ۳۴۲-۳۴۹
نویسندگان: عبداله نوربخش، هدایت حسینی منوجان، محمدرفیعی نیا

29- **A new approach to fabrication of Cs/BG/CNT nanocomposite scaffoldtowards bone tissue engineering and evaluation of its properties**
Journal: Applied Surface Science, 357 (2015) 1758–1764.
Authors: S. Shokri, B. Movahedi, M. Rafieinia, H. Salehi

30- **Incorporation of Chitosan Nanoparticles into Silk Fibroin-Based Porous Scaffolds: Chondrogenic Differentiation of Stem Cells**
Journal: International Journal of Polymeric Materials and Polymeric Biomaterials, 2016, VOL. 65, NO. 4, 202–209.
Authors: Mitra Naeimi, **Mohammad Rafienia**, Mohammadhossein Fathi, Mohsen Janmaleki, Shahin Bonakdar, Mehdi Ebrahimian-Hosseinabadi

31- **Surfactant-assisted sol–gel synthesis of forsterite nanoparticles as a novel drug delivery system**
Journal: Materials Science and Engineering C 58 (2016) 737–741
Authors: S.A. Hassanzadeh-Tabrizi, Ashkan Bigham, **Mohammad Rafienia**

32- **Incorporation of zeolite and silica nanoparticles into electrospun PVA/collagen nanofibrous scaffolds: The influence on the physical, chemical properties and cell behavior**
Journal: International Journal of Polymeric Materials and Polymeric Biomaterials, 2016, VOL. 65, NO. 9, 457–465.
Authors: Mohammad Mehrasa, Abdolrahman Omidinia Anarkoli, **Mohammad, Rafienia**, Nasim Ghasemi, Navid Davary, Shahin Bonakdar, Mitra Naeimi, Maria Agheb and Mohammad Reza Salamat

33- **Fabrication of poly hydroxybutyrate-polyethylene glycol-folic acid nanoparticles loaded by Paclitaxel and the evaluation of drug release for drug targeting to cancer cells**
Journal: Current Drug Delivery, 2016, 13, 57-64
Authors: Fatemeh Rezaei, **Mohammad Rafienia**, Hamid Keshvari, Mansooreh Sattary, Mitra Naeimi and Hossein Keyvani

34- **Characterization and in vitro evaluation of nanostructure Barium titanate coating on Ti6Al4V**
Journal: Journal of Ceramic Processing Research. Vol. 17, No. 5, pp. 434~438 (2016)
Authors: Shahram Rahmati, Mohammad Basir Basiriani, **Mohammad Rafienia**, Jaber Yaghini, Keyvan Raeissi, Saeid Hosseini and Sattar Kabiri

35- **Novel Electrospun Nanofibers of Modified Gelatin-Tyrosine in Cartilage Tissue Engineering**
Journal: Materials Science and Engineering: C. 2017 Feb 1;71:240-251
Authors: Maria Agheb, Mohammad Dinari, **Mohammad Rafienia**, Hossein Salehi

36- **Highly Sensitive Electrochemical Hydrogen Peroxide Sensor Based on Iron Oxide-Reduced Graphene Oxide-Chitosan Modified with DNA-celestine Blue**
Journal: Electroanalysis 2017, 29, 1–12
Authors: Abdollah Noorbakhsh, Mohmmad Khakpoor, **Mohammad Rafienia**, Ensiyeh Sharifi, Mohammad Mehrasa

37- **Ultrasensitive aflatoxin B1 assay based on FRET from aptamer labelled fluorescent polymer dots to silver nanoparticles labeled with complementary DNA**
Journal: Microchim Acta (2017) 184:4655–4662
Authors: Vahid Nasirian, Ammar Chabok, Ali Barati, **Mohammad Rafienia**, Mehdi Sheikh Arabi, Mojtaba Shamsipur

38- **Fabrication and characterization of electrospun poly lactic-co-glycolic acid/zeolite nanocomposite scaffolds using bone tissue engineering**
Journal: Journal of Bioactive and Compatible Polymers, 2017, Vol-33 issue-1, pp: 63-78
Authors: Rahele Davarpanah Jazi, **Mohammad Rafienia**, Hossein Salehi Rozve, Ebrahim Karamian, Mansooreh Sattary

39- **Fabrication and characterization of fibrin/carbon nanotubes electrospun composite scaffold for tissue engineering applications**
Journal: International Journal of Advanced Biotechnology and Research, Vol-8, Issue-2, 2017, pp1486-1495
Authors: Ali Valiani1*, Ali Samadi, Batool Hashemibeni, **Mohammad Rafienia**

40- **Effects of nanozeolite/starch thermoplastic hydrogels on wound healing**
Journal: Journal of Research in Medical Sciences, 2017, 22: 110-119

Authors: Hossein Salehi, Mohammad Mehrasa, Bijan Nasri-Nasrabadi, Mohsen Doostmohammadi, Reihaneh Seyedebrahimi, Navid Davari, **Mohammad Rafienia**, Mehdi E Hosseinabadi, Maria Agheb, Mansour Siavash

41- **A novel fabrication of PVA/Alginate-Bioglass electrospun for biomedical engineering application**
Journal: Nanomedicine Journal 4(3): 152-163, Summer 2017
Authors: Aliasghar Saberi, **Mohammad Rafienia**, Elahe Poorazizi

42- **The Effect of Electrospinning Parameters on the Compliance Behavior of Electrospun Polyurethane Tube for Artificial Common Bile Duct**
Journal: Polymer Science, Series A, 2017, Vol. 59, No. 1, pp. 67–75
Authors: Najmeh Moazeni, Dariush Semnani, **Mohammad Rafeinia**, Hossein Hasani, Mitra Naeimi, and Mehdi Sadrjahani

43- **Design, synthesis, characterization and bioactivity evaluation of polyglycerol-grafted Fe_3O_4 nanoparticles**
مجله پژوهشهاي سلولي و مولكولي (مجله زيست شناسي ايران) جلد ، ۲۹شماره ۱، ۱۳۹۵
Authors: Zarepourer A, **Rafienia M**, Zarrabi A, Salehi H

44- **Copper-doped and copper-free bioactive glass nanopowders cytotoxicity and antibacterial activity assessment**
Journal: Scientia Iranica, F (2017) 24(3), 1706-1716
Authors: Sh. Soltani-Dehnavi, M. Mehdikhani-Nahrkhalaji, **M. Rafienia**, A. Doostmohammadi

45- **Electrophoretic-deposited hydroxyapatite-copper nanocomposite as an antibacterial coating for biomedical applications**
Journal: Surface & Coatings Technology 321 (2017) 171–179
Authors: Mohammad Hadidi, Ashkan Bigham, Ehsan Saebnoori, S.A. Hassanzadeh-Tabrizi, Shahram Rahmati, Zahra Mohammad Alizadeh, Vahid Nasirian, **Mohammad Rafienia**

46- **Fabrication and Characterization of Polyphosphazene/Calcium Phosphate Scaffolds Containing Chitosan Microspheres for Sustained Release of Bone Morphogenetic Protein 2 in Bone Tissue Engineering**
Journal: Tissue Engineering Regenerative Medicine (2017) 14(5):525–538
Authors: Adnan Sobhani, **Mohammad Rafienia**, Mehdi Ahmadian, Mohammad-Reza Naimi-Jamal

47- **Study of Cell Behavior of the Electrospun Polycaprolactone/Gelatin Scaffold Containing Nano-hydroxyapatite and Vitamin D3**
Journal: Journal of Isfahan Medical School, Vol. 35, No. 425, 1st Week, June 2017
Authors: Mansoureh Sattary, **Mohammad Rafienia**, Mohammad Taghi Khorasani, Hossein Salehi-Rozve

48- **Electrospun Polycaprolactone/lignin-based Nanocomposite as a Novel Tissue Scaffold for Biomedical Applications**
Journal: Journal of Medical Signals & Sensors, Vol 7, No 4 (2017)
Authors: Mohammad Ali Salami, Faranak Kaveian, Mohammad Rafienia, Saeed Saber Samandari, Amirsalar Khandan, Mitra Naeimi

49- **Incorporation of nanohydroxyapatite and vitamin D3 into electrospun PCL/Gelatin scaffolds: The influence on the physical and chemical properties and cell behavior for bone tissue engineering**
Journal: Polymer for Advanced Technologies, Volume 29, Issue 1, January 2018, Pages 451–462
Authors: Mansoureh Sattary, Mohammad Taghi Khorasani, **Mohammad Rafienia**, Hossein Salehi Rozve

50- **Multifunctional nanoporous magnetic zinc silicate-$ZnFe_2O_4$ core-shell composite for bone tissue engineering applications**
Journal: Ceramics International 44 (2018) 11798–11806
Authors: Ashkan Bigham, Firoozeh Foroughi, Mehdi Motamedi, **Mohammad Rafienia**

51- **Solvothermal Synthesis of Magnetic Spinel Ferrites**
Journal: Journal of Medical Signals & Sensors, (2018) Volume 8, Issue 2, 108-118

Authors: **Mohammad Rafienia**, Ashkan Bigham1, Seyed Ali HassanzadehTabrizi

52- **Preparation and in vitro evaluation of polycaprolactone/PEG/bioactive glass nanopowders nanocomposite membranes for GTR/GBR applications**
Journal: Materials Science & Engineering C 90 (2018) 236–247
Authors: Shiva Soltani Dehnavi, Mehdi Mehdikhani, **Mohammad Rafienia**, Shahin Bonakdar

53- **Gehlenite nanobioceramic: Sol-gel synthesis, characterization, and in vitro assessment of its bioactivity**
Journal: Materials Letters 225 (2018) 89-92
Authors: **Mohammad Rafienia**, Ashkan Bigham, Ahmad Saudi, Shahram Rahmati

54- **Development of electrospun poly (vinyl alcohol)-based bionanocomposite scaffolds for bone tissue engineering**
Journal: Journal of Biomedical Materials Research: Part A 106 (4) (2018) 1111-1120
Authors: Mohammad Saied Enayati, T. Behzad, P. Sajkiewicz, **M. Rafienia**, R. Bagheri, L. Ghasemi-Mobarakeh, D. Kolbuk, Z. Pahlevanneshan, SH. Bonakdar

55- **Physicochemical, Antimicrobial and Cytotoxic Characteristics of Corn Starch Film Containing Propolis for Wound Dressing**
Journal: Journal of Polymers and the Environment (2018) Volume 26, Issue 8, pp 3345–3351
Authors: Asghar Eskandarinia, **Mohammad Rafienia**, Sepehr Navid, Maria Agheb

56- **Methotrexate-conjugated to polymer quantum dot for cytotoxicity effect improved against MCF-7 and Hela cells**
Journal: Medicinal Chemistry Research (2018) Volume 27, Issue 6, pp 1578–1588
Authors: **Mohammad Rafienia**, Vahid Nasirian, Kamran Mansouri, Asad Vaisi-Raygani

57- **Synthesis and characterization of mesoporous magnesium silicate for controlled release drug applications**
Journal: (in Persian) New Process in Material Engineering, 2018, 12(1), 73-83
Authors: Ashkan Bigham, Seyed Ali Hassanzadeh Tabrizi, **Mohammad Rafienia**, Hossein Salehi

58- **Evaluation of Wound Healing and Antimicrobial Properties of Hydrogel Dressings of Starch Containing Ethanolic Extract of Propolis in the Rat**
Journal: (in Persian) Journal of Isfahan Medical School, Vol. 35, No. 458, 2nd Week, February 2018
Authors: Asghar Eskandarinia, **Mohammad Rafienia**, Mosayeb Gharakhloo, Sepehr Navid, Amirhosein Kefayat

59- **Study of Cell Behavior of the Electrospun Polycaprolactone/Gelatin Scaffold Containing Nano-hydroxyapatite and Vitamin D3**
Journal: (in Persian) Journal of Isfahan Medical School, Vol. 35, No. 425, 1st Week, June 2017
Authors: Mansoureh Sattary, **Mohammad Rafienia**, Mohammad Taghi Khorasani, Hossein Salehi-Rozve

60- **Fabrication of Porous Mg-Zn Scaffold through Modified Replica Method for Bone Tissue Engineering**
Journal: Journal of Bionic Engineering, Vol. 15, Issue: 5, pp. 907-913 *Authors*: Aghajanian, AH, Khazaei, BA, Khodaei, M, **Rafienia, M**

61- **Assessing the physical and mechanical properties of poly 3-hydroxybutyrate-chitosan-multi-walled carbon nanotube/silk nano-micro composite scaffold for long-term healing tissue engineering applications**
Journal: Micro & Nano Letters (2018) Vol.13, Issue: 6, pp. 829-834
Authors: Mirmusavi, MH, Karbasi, S, Semnani, D, **Rafienia, M**, Kharazi, AZ

62- **Design and fabrication of poly (glycerol sebacate)-based fibers for neural tissue engineering: Synthesis, electrospinning, and characterization**
Journal: Polymers for Advanced Technologies (2019) Volume: 30, Issue: 6, Pages: 1427-1440
Authors: Ahmad Saudi, **Mohammad Rafienia**, Anousheh Zargar Kharazi, Hossein Salehi, Ali Zarrabi, Mehdi Karevan

63- **Potential of an electrospun composite scaffold of poly (3-hydroxybutyrate)-**

chitosan/alumina nanowires in bone tissue engineering applications
Journal: Materials Science & Engineering C 99 (2019) 1075–1091
Authors: Elahe Bahremandi Toloue, Saeed Karbasi, Hossein Salehi, **MohammadRafienia**

64- **The effect of collector type on the physical, chemical, and biological properties of polycaprolactone/gelatin/nano-hydroxyapatite electrospun scaffold**
Journal: Journal of Biomedical Materials Research Part B-Applied Biomaterials, 2019 May;107(4):933-950
Authors: Sattary M, **Rafienia M**, Khorasani MT, Salehi H

65- **Electrophoretically deposited mesoporous magnesium silicate with ordered nanopores as an antibiotic-loaded coating on surface-modified titanium**
Journal: Materials Science & Engineering C 96 (2019) 765–775
Authors: Ashkan Bigham, Ahmad Saudi, **Mohammad Rafienia**, Shahram Rahmati, Hassan Bakhtiyari, Fatemeh Salahshouri, Mansoureh Sattary, S.A. Hassanzadeh-Tabrizi

66- **Promoting effect of nano hydroxyapatite and vitamin D3 on the osteogenic differentiation of human adipose-derived stem cells in polycaprolactone/gelatin scaffold for bone tissue engineering**
Journal: Materials Science & Engineering C 97 (2019) 141–155
Authors: Mansoureh Sattary, **Mohammad Rafienia**, Mohammad Kazemi, Hossein Salehi,Mohammad Mahmoudzadeh

67- **Electrospun polycaprolactone/gelatin/bioactive glass nanoscaffold for bone tissue engineering**
Journal: International Journal of Polymeric Materials and Polymeric Biomaterials, 68 (10) 2019 607-615
Authors: Keyvan Shirani, Mohammad Sadegh Nourbakhsh and **Mohammad Rafienia**

68- **Chondrogenesis of human adipose-derived mesenchymal stromal cells on the [devitalized costal cartilage matrix/poly(vinyl alcohol)/fibrin] hybrid scaffolds**
Journal: European Polymer Journal 118 (2019) 528–541
Authors: Mohsen Setayeshmehr, Ebrahim Esfandiari, Batool Hashemibeni, Amir Hossein Tavakoli, **Mohammad Rafienia**, Ali Samadikuchaksaraei, Lorenzo Moroni, Mohammad Taghi Joghataei

69- **Hybrid and Composite Scaffolds Based on Extracellular Matrices for Cartilage Tissue Engineering**
Journal: Tissue Engineering: Part B, Volume 25, Number 3, (2019) 202–224
Authors: Mohsen Setayeshmehr, Ebrahim Esfandiari, **Mohammad Rafieinia**, Batool Hashemibeni, Asghar Taheri-Kafrani, Ali Samadikuchaksaraei, David L. Kaplan, Lorenzo Moroni, Mohammad T. Joghataei

70- **Cornstarch-based wound dressing incorporated with hyaluronic acid and propolis: In vitro and in vivo studies**
Journal: Carbohydrate Polymers 216 (2019) 25–35
Authors: Asghar Eskandarinia, Amirhosein Kefayat, **Mohammad Rafienia**, Maria Agheb, Sepehr Navid, Karim Ebrahimpour

71- ***In vitro* and *in vivo* performance of a propolis-coated polyurethane wound dressing with high porosity and antibacterial efficacy**
Journal: Colloids and Surfaces B: Biointerfaces 178 (2019) 177–184
Authors: Darioush Khodabakhshi, Asghar Eskandarinia, Amirhosein Kefayat, **Mohammad Rafienia**, Sepehr Navid, Saeed Karbasi, Jamal Moshtaghian

72- **Development of a sensitive B12 determination method based on inner filter effect on CdTe quantum dots**
Journal: Advances in Nanochemistry 2019, 1, 1-5 1
Authors: Mojtaba Shamsipur, Vahid Nasirian, Ali Barati, **Mohammad Rafienia**, Mehdi Sheikh Arabi

73- **Reduced graphene oxide–reinforced gellan gum thermoresponsive hydrogels as a myocardial tissue engineering scaffold**

Journal: Journal of Bioactive and Compatible Polymers 2019, Vol. 34(4-5) 331–345
Authors: Seyed Mohammad Zargar, Mehdi Mehdikhani and **Mohammad Rafienia**

74- **Promoting neural cell proliferation and differentiation by incorporating lignin into electrospun poly(vinyl alcohol) and poly(glycerol sebacate) fibers**
Journal: Materials Science & Engineering C 104 (2019) 110005
Authors: Ahmad Saudi, Shahram Amini, Noushin Amirpour, Mohammad Kazemi, Anousheh Zargar Kharazi, Hossein Salehi, **Mohammad Rafienia**

75- **Potential of novel electrospun core-shell structured polyurethane/starch (hyaluronic acid) nanofibers for skin tissue engineering: *In vitro* and *in vivo* evaluation**
Journal: International Journal of Biological Macromolecules 146 (2020) 627–637
Authors: Mehdi Movahedi, Azadeh Asefnejad, **Mohammad Rafienia**, Mohammad Taghi Khorasani

76- **A propolis enriched polyurethane-hyaluronic acid nanofibrous wound dressing with remarkable antibacterial and wound healing activities**
Journal: International Journal of Biological Macromolecules 149 (2020) 467–476
Authors: Asghar Eskandarinia, Amirhosein Kefayat, Mosayeb Gharakhloo, Maria Agheb, Darioush Khodabakhshi, Mehdi Khorshidi, Vafa Sheikhmoradi, **Mohammad Rafienia**, Hossein Salehi

77- **A Novel Non-enzymatic Biosensor Based on Ti-Metallic Glass Thin Film: The Blood Glucose Oxidation Approach**
Journal: Journal of Medical Signals and Sensors 10 (1) 2020, 35-41
Authors: Mohsen Sarafbidabad, Hamidreza Kaviani Jazi, Mohammad Rafienia

78- **On the Bioactivity and Mechanical Properties of Gehlenite Nanobioceramic: A Comparative Study**
Journal: Journal of Medical Signals and Sensors 10 (2) 2020, 105-112
Authors: Ashkan Bigham, Saeed Kermani, Ahmad Saudi, Amir Hamed Aghajanian, **Mohammad Rafienia**

79- **Hierarchical porous Mg2SiO4-CoFe2O4 nanomagnetic scaffold for bone cancer therapy and regeneration: Surface modification and in vitro studies**
Journal: Materials Science & Engineering C 109 (2020) 110579
Authors: Ashkan Bigham, Amir Hamed Aghajanian, Ahmad Saudi, **Mohammad Rafienia**

80- **Novel electrospun polyurethane scaffolds containing bioactive glass nanoparticles**
Journal: Bioinspired, Biomimetic and Nanobiomaterials, doi.org/10.1680/jbibn.18.00004
Authors: I. Yazdani, B. Movahedi, M. Naeimi, M. Sattary, **M. Rafienia**

81- **A novel Bilayer Wound Dressing composed of a Dense polyurethane/propolis Membrane and a Biodegradable polycaprolactone/Gelatin Nanofbrous Scaffold**
Journal: Scientific Reports, (2020) doi.org/10.1038/s41598-020-59931-2
Authors: Asghar eskandarinia, Amirhosein Kefayat, Maria Agheb, **Mohammad Rafenia**, Moloud Amini Baghbadorani, Sepehr navid, Karim ebrahimpour, Darioush Khodabakhshi and fatemeh Ghahremani

C) BOOKS

Biodegradable Metals: from Concept to Application
2015; (Translation, in Farsi)
*Authors:*Mohammad Rafienia, Davud Sadeghi, Hosein Mohammadi

An Introduction to Biomaterials
2012; (Translation, in Farsi)
*Authors:*Mohammad Rafienia, Ali Pursamar, Mahdis Shayan

Application Potentials of Microwave in NanoMagnetic Particle Hyperthermia (Book Chapter)

Publisher: springer. 2009; (in English)
Authors: M. Janmaleki, M. Mahmoudi, M. Rafienia, and H. Peirovi
http://www.springerlink.com/content/v5u3251787187463/

Effect of Polymer Molecular Weight on Morphology and Particle Size of Chitosan Microspheres Prepared via Spray Drying Method (Book Chapter)
Publisher: springer. 2009; (in English)
Authors: S. Taranejoo, M. Rafienia, M. Janmaleki, M. Kamali, and L. Sadeghzadeh
http://www.springerlink.com/content/x0m03245w7146187/

Estimation of Betamethasone Release Profiles from an in Situ Forming System Based on the Biodegradable Polymer Using Artificial Neural Networks (Book Chapter)
Publisher: springer. 2009; (in English)
Authors: M. Amiri, M. Rafienia and A. Sadeghian
http://www.springerlink.com/content/q61041577820n50x/

An introduction to Tissue-Biomaterial Interactions
2008; (Translation, in Farsi)
Authors: Shahin Bonakdar, Mohammad Rafienia

Biomaterials Principles and Applications
2008; (Translation, in Farsi)
*Authors:*Mohammad Rafienia, Shahin Bonakdar

Encyclopedia of Biomedical Engineering
2008; (Compilation, in Farsi)

Nanoparticles and their application in controlled release of biological agents
2003; (in Farsi)
Authors: Shahriar Sharifi, Mohammad Rafienia, Esmal Jabari

THESES SUPERVISION

2017-2019 **Fabrication and Evaluation of the Physical and Mechanical Properties of Engineered Bilayer Skin Substitute based on Polyurethane-Polyurethane/Chitosan containing Propolis and Deferoxamine for using in Wound Healing**
Supervisors: Mohammad Rafienia (me as Supervisor), Saeed Karbasi
Student: Daryush Khoda Bakhshi Hafshejan
Place: Isfahan University of Medical Sciences

2017-2019 **Fabrication and evaluation of electrospun scaffold properties based on polyglycerol sebacate/polyvinyl alcohol/lignin nanocomposite to use nerve tissue engineering**
Supervisors: Mohammad Rafienia (me as Supervisor), Ali Zarabi, Anushe Zargar
Student: Ahmad Saudi
Place: Isfahan University of Medical Sciences

2016-2018 **Fabrication and evaluation of Biphasic calcium phosphate/Graphene nano-composite coatings on titanium substrate for biomedical applications**
Supervisors: Mohammad Rafienia (me as Advisor), Mehdi Ebrahimian
Student: Safura Farshid
Place: Isfahan University

2016-2018 **Fabrication and evaluation of Poly(caperolactone)- lignin-Graphene nano-composite scaffolds for nerve tissue engineering**

Supervisors: Mohammad Rafienia (me as Advisor), Mehdi Ebrahimian
Student: Hosein Momeni
Place: Isfahan University

2016-2018 **Evaluation of Physical, Mechanical and Cellular Properties of Polyhydroxybutyrate/Chitosan/ Al2O3 Nanocomposite Scaffold for Tissue Engineering Application**
Supervisors: Mohammad Rafienia (me as Advisor), Saeed Karbasi
Student: Elahe Bahrmandi
Place: Isfahan University of Medical Sciences

2015-2016 **Fabrication and Evaluation properties of hydrogel wound dressing based on starch, hyaluronic acid and propolis to repair scar cutaneous Leishmaniasis**
Supervisors: Mohammad Rafienia (me as Supervisor), Ali Zarrabi
Student: Asghar Eskandari nia
Place: Isfahan University of Medical Sciences

2015-2019 **Investigation of Chondrogenesis of Human Adipose Derived stem cells on Poly Vinyl Alcohol (PVA) /Acellular Cartilage Matrix (ACM) /Fibrin hybrid scaffold**
Supervisors: Mohammad Taghi Joghataee, Mohammad Rafienia (me as Supervisor), Batul Hashemi Beni
Student: Mohsen Setayesh Mehr
Place: Iran University of Medical Sciences

2015-2017 **Fabrication Polycaprolactone/Hydroxyapatite electrospun nanocomposite Containing Vitamin D for Jaw bone tissue engeneering Scaffold application**
Supervisors: Mohammad Taghi Khorasani, Mohammad Rafienia (me as Supervisor), Hosein Salehi
Student: Mansure Sattari
Place: Science and Research Branch, Islamic Azad University

2014-2016 **Fabrication and characterization of polycaprolactone and lignin nanocomposite scaffolds by electrospinning method for tissue engineering**
Supervisors: Mohammad Rafienia (me as Supervisor), Hosein Salehi
Student: Mohamamd Ali Salami
Place: Isfahan University of Medical Sciences

2014-2016 **Synthesis and characterization of mesoporous magnesium silicate nanoparticles loaded by ibuprofen**
Supervisors: S.A. Hassanzadeh-Tabrizi, Ashkan Bigham, Mohammad Rafienia (me as Advisor), Hosein Salehi
Student: Ashkan Bigham
Place: Islamic Azad University, Najaf Abad Branch

2014-2016 **Fabrication and characterization of nanocomposite scaffold on based polyphosphozen/calcium phosphate/chitosan microsphere in mesenchymal stem cell differentiation into osteoblast used in bone tissue engineering**
Supervisors: Mehdi Ahmadian, Mohammad Rafienia (me as Supervisor), Mohammad Hosein Fathi
Student: Adnan Sobhani
Place: Isfahan University of Technology

2014-2016 **Synthesis and characterization of piezoelectric barium titanate nanocoating on titanium dental implant**
Supervisors: Mohammad Rafienia (me as Supervisor)
Student: Shahram Rahmati
Place: Isfahan University of Medical Sciences

2014-2016 **Fabrication and Characterization of Poly lactic-co-glycolic Acid and Nano-zeolite Scaffold by Electrospinning as a Bone Tissue Engineering**
Supervisors: Mohammad Rafienia, Hosein Salehi Rezve (me as Supervisor)
Student: Raheleh Davarpanah
Place: Islamic Azad University of Najafabad

2014-2016	**Preparation and characterization of silk fibroin-chitosan composite incorporated carbon nanotubes** *Supervisors:* Mohammad Rafienia, Hosein Salehi Rezve (me as Supervisor) *Student*: Shahin Ruhi *Place*: Islamic Azad University of Najafabad
2013-2015	**Fabrication and Evaluation of Electrospun PCL/Gelatin/Bio glass Composite Scaffolds for Bone Tissue Engineering** *Supervisors:* Seyed Mohammad Sadegh Nurbakhsh, Mohammad Rafienia (me as Advisor), Daryush Semnani *Student*: Keyvan Shirani *Place*: Semnan University
2013-2014	**Preparation and characterization of nano-composite membrane based on Polycaprolactone and bioactive glass nanoparticles containing Cu** *Supervisors:* Mohammad Rafienia, Mehdi Mehdi Khani (me as Supervisor) *Student*: Shiva Soltani *Place*: Semnan University
2013-2014	**Electrophoretic deposition of Nano Hydroxy apatite-Copper oxide coating on Ti-6Al-4V and evaluation of the coating properties** *Supervisors:* Mohammad Rafienia (me as Supervisor) *Student*: Mohamamd Hadidi *Place*: Islamic Azad University of Najafabad
2012-2014	**evaluation of mesenchymal stem cell differentiation into chondrocyte on silk-based scaffold containing chitosan nanoparticles** *Supervisors:* Mohammad Rafienia, Mohammad Hosein Fathi (me as Supervisor) *Student*: Mitra Naeemi *Place*: Isfahan University of Medical Sciences- Isfahan University of Technology
2012-2013	**Fabrication of Poly hydroxybutyrate-Polyethylene glycol-Folic acid nanoparticles loaded by paclitaxel for drug targeting to cancer cells** *Supervisors*: Mohammad Rafienia, Hamid Keshvari (me as Supervisor) *Student*: Fateme Rezaee *Place*: Amirkabir University of Technology
2012-2013	**Modelling and manufacturing the endoprosthesis of bile duct using by PU nanofibers** *Supervisors:* D. Semnani, H. Hasani, Mohammad Rafienia (me as Advisor) *Student*: Najmeh Moazeni *Place*: Isfahan University of Technology
2012-2013	**Synthesis and characterization of polymer nano composites based on MCM-48 and CMK-1 as mesoporous materials and their application in adsorption and release of Ibuprofen** *Supervisors:* Rouzbeh Javad Kalbasi, Mohammad Rafienia (me as Advisor) *Student*: Forugh Bayat *Place*: Azad University of Shahreza
2012-2013	**Synthesis and characterization of polymer nano composites based on KIT-5 as mesoporous materials and their application in adsorption and release of Ibuprofen** *Supervisors:* Rouzbeh Javad Kalbasi, Mohammad Rafienia (me as Advisor) *Student*: Ali Zirakbash *Place*: Azad University of Shahreza
2012-2013	**Synthesis and characterization of polymer nano composites based on KIT-6 as mesoporous materials and their application in adsorption and release of Ibuprofen** *Supervisors:* Rouzbeh Javad Kalbasi, Mohammad Rafienia (me as Advisor) *Student*: Keyvani Hafshejani *Place*: Azad University of Shahreza

2010-2011 **Investigation of manufacturing polymer coated urethral catheter containing antibacterial drug (Gentamicine) for reducing hospital infection**
Supervisors:Mohammad Rafienia (me as Supervisor), Alireza Khavandi
Student: Babak Zarin mehr
Place: Iran University of Science and Technology

2010-2011 **Fabrication and evaluation properties of Poly hydroxyl butyrate micro and nano particles and functionalized them by Folic acid for drug targeting to cancer cell**
Supervisors:Mohammad Rafienia (me as Supervisor), Hamid Mobedi
Student: Mansureh Satari
Place: Islamic Azad University

2010-2011 **Evaluation of gentamicin solfate release from poly (ethylene-co-vinyl acetate) and poly(ethylene glycol) coating of urethral catheter**
Supervisors:Mohammad Rafienia (me as Supervisor), Shahin Bonakdar
Student: Fateme Rezaee
Place: Amirkabir University of Technology

2010-2011 **Preparation and characterization of bioactive Co-base alloy composite reinforced with nanobioactive glass**
Supervisors: Mohammad Hosein Fathi, Mahdi Ahmadian, Mohammad Rafienia (me as Advisor)
Student: Razie Gharakhani
Place: Isfahan University of Technology

2007 - 2007 **In Vivo Evaluation of Betamethasone and Betamethasone Acetate Release from Injectable In Situ Forming PLGA Implant**
Supervisors: Mohammad Rafienia (me as Supervisor), Hamid Mobedi
Student: Arash Momeni
Place: Amirkabir University of Technology

2006 - 2007 **Evaluation of Theophine Release from Starch Microspheres**
Supervisors: Mohammad Rafienia (me as Supervisor), Fariba Orang
Student: Mahmudian
Place: Amirkabir University of Technology

2006 - 2007 **Synthesis & Characterization of Biodegradable Hemostat Gelatin Sponge by Carbodiimide for Surgery Application**
Supervisors: Mohammad Rafienia (me as Supervisor), Shahriar Hojjati Emami
Student: Maryam Kabiri
Place: Amirkabir University of Technology

2006 - 2007 **Synthesis & Characterization of Biodegradable Hemostat Gelatin Sponge by Glutaraldehyde for Surgery Application**
Supervisors: Mohammad Rafienia (me as Supervisor), Shahriar Hojjati Emami
Student: Rana Imani
Place: Amirkabir University of Technology

2005 - 2006 **Evaluation of Betamethasone and Betamethasone Acetate Release from In Situ Forming Drug Delivery Systems based on PLGA (50/50) and PLGA (75/25)**
Supervisors: Mohammad Rafienia (me as Supervisor), Hamid Mobedi
Student: Atefe Purjahed
Place: Amirkabir University of Technology

2005 - 2006 **Synthesis of Biodegradable Polyurethane Microspheres to Controlled Release of Theophiline**
Supervisors: Fariba Orang, Mohammad Rafienia (me as Advisor)
Student: Morteza Mahmudi
Place: Amirkabir University of Technology

2004 - 2005 **Synthesis and Characterization of Novel Biocompatible Polyurethanes and Evaluation of Their Blood Compatibility**
Supervisors: Hamid Yeganeh, Fariba Orang, Mohammad Rafienia (me as Advisor)
Student: Atefe Soluk

Place: Amirkabir University of Technology

2003 - 2005 **Synthesis and Characterization of Biomedical Polyurethane based on MDI and Improving Properties Related to Suitable Diol**
Supervisors: Fariba Orang, Mohammad Rafienia (me as Advisor)
Student: Sara Karimianpur
Place: Amirkabir University of Technology

2003 - 2004 **Measuring Contact Angle of Liquid with Surface**
Supervisors: mohammad rafienia (me as Supervisor), hosein rabani
Student: Mahnaz Daliri
Place: Amirkabir University of Technology

THEORIES, DISCOVERIES AND INVENTIONS

2012 **Fabrication of Poly Hydroxybutyrate-Polyethylene Glycol-Folic Acid Nanoparticles For Drug Targeting To Cancer Cells**
Pioneers: Mohammad Rafienia- Mansure Satari

2011 **Using of Corals As Bioceramic In Restoration Of Bone Defects**
Pioneers: Mohammad Rafienia- Ahmad Toghi Eshghi

2008 **In Situ Forming Drug Delivery System Based on Poly Lactic-Glycolic Acid In Order To Release Corticosteroid Drugs**
Pioneers: Mohammad Rafienia- Arash Momeni Borujeni

2007 **Making Biodegradable Hemostat Gelatin Sponge For Surgery Application**
Pioneers: Rana Imani, Mohammad Rafienia

FOUNDINGS AND PLANNINGS

HONORS, PRIZES AND AWARDS

2012 Selected researcher in Biosensor Research Center during 1391 (2012)
From Isfahan University of Medical Sciences

2009 Selected researcher in Isfahan during 1388 (2009)

2007 Ranked 1nd in the Ph.D. courses in Biomedical Engineering
From Amirkabir University of Technology

2007 Ranked 1nd in the Ph.D. research studies in Biomedical Engineering
From Amirkabir University of Technology

2001 Ranked 2nd in the M.Sc. courses in Biomedical Engineering, Amirkabir University of Technology
From Amirkabir University of Technology

1998 Ranked 3nd in the B.Sc. courses in Materials Engineering, Isfahan University of Technology
From Isfahan University of Technology

RESEARCH INTERESTS

Biodegradable Materials
Injectable Biodegradable scaffolds, Biodegradable Hydrogels, Biopolymers, Biodegradable Photo-Polymerizable Polymers, Biodegradable Biocomposites

Biomaterials
Biocomposites, Bioceramics, Biocompatibility, Hemocompatibility, Sterilization Methods, Dental Materials, Surgical Alloys, porous metals, Surface Treatment of Biomaterials, Orthosis and Prosthesis

Drug delivery systems
In situ forming systems, Micro and Nano capsulation, Vaccine delivery, Drug Delivery in Tissue Engineering, Applications of Artificial Neural Networks in Drug Delivery

Biosensors

Material Science
Advanced materials, Composites, Shape Memory alloys, Selection of Materials

Tissue Engineering
Design and Fabrication of Biodegradable Scaffolds, Stem Cells, Environmental Factors, Regenerating of Different Tissues, Bioreactor Design

Multidisciplinary Scientific Researches