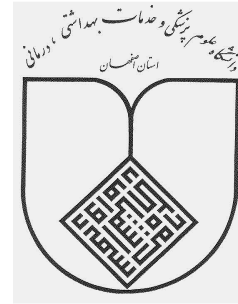


**CURRICULUM VITAE
MOHAMMAD RAFIENIA**



CONTACT INFORMATION

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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 EXAMES, STATIC, THERMODYNAMIC 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

- 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 nonocomposites 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 **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, 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

- 2017-2018 *Authority:* Isfahan University of Medical Sciences
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
- 2016-2017 *Authority:* Isfahan University of Medical Sciences
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
- 2016-2017 *Authority:* Isfahan University of Medical Sciences
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
- 2015-2017 *Authority:* Isfahan University of Medical Sciences
Conjugation and optimization of specific aptamer for aflatoxin to polymer nano quantum dot
Members: Mohammad Rafienia, Saeed Karbasi, Vahid Nasirian
- 2015-2017 *Authority:* Isfahan University of Medical Sciences, Biosensor Reaserch Center
Preparation of fluorescent biosensors for rapid determination of aflatoxin by conjugated plymer quantum dot - aptamer
Members: Mohammad Rafienia, Vahid Nasirian
- 2015-2017 *Authority:* Isfahan University of Medical Sciences, Biosensor Reaserch Center
Improving antiproliferative effect of Methotrexate by conjugation to corbone dot nanoparticles
Members: Mohammad Rafienia, Vahid Nasirian, Mohamamd Reza Salamat
- 2013-2014 *Authority:* Isfahan University of Medical Sciences, Biosensor Reaserch Center
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
- 2013-2014 *Authority:* Iranian council of stem cell technology
In vitro biocompatibility assessment of hyper branched polyglycerol coated Fe₃O₄ nanoparticles
Members: Mohammad Rafienia, Ali Zarabi, Atefeh Zaree Pur
- 2013-2014 *Authority:* Isfahan University of Medical Sciences, Biosensor Reaserch Center
Electrochemical Determination of Curcumin on the surface of Glassy Carbon Electrode Modified with Graphen Based Nanocomposite.
Members: Mohammad Rafienia, Ali Zarabi, Behzad Mirzaee
- 2013-2014 *Authority:* Isfahan University of Medical Sciences, Biosensor Reaserch Center
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
- 2012-2014 *Authority:* Iran National Science Foundation (INSF)
Evaluation of mesenchymal stem cell differentiation into chondrocyte on silk-based scaffold containing chitosan nanoparticles
Members: Mohammad Rafienia, Mohammad Hosein Fathi, Mitra Naeemi, 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 dental 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 Research 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, Hossein 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 electrospinning 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 engineering and applied sciences, Dubai, 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 زیست فعال
 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 رفیعی نیا، 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 رفیعی نیا، 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 رفیعی نیا
- 2012 Synthesis of nanofiber ceramic bioactive glass by sol-gel and electro-spinning
 processes using 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 تهیه نانوذرات پلی هیدروکسی بوتیرات اصلاح سطحی شده برای دارورسانی هدفمند به سلولهای سرطانی
Conference: ۱۳۹۰: دومین کنگره نانوداروها-دانشگاه علوم پزشکی جندی شاپور اهواز-۱۶-۱۸ اسفند
Authors: منصوره ستاری، محمد رفیعی نیا، حمید موبدی، افشین فصیحی، 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 بررسی خواص شیشه سرامیک سیستم لیتیم دی سیلیکات با افزودن عامل جوانه زای اکسید نیویوم**
Conference: 17th Iranian Conference on Biomedical Engineering (ICBME). 2010; (Poster)
Authors: منصوره ستاری، امیر عباس نوربخش، پریسا گوهریان، محمد رفیعی نیا
- 2010 بررسی ساخت سوندهای مجاری ادرار با پوشش پلیمری حاوی داروی ضد باکتری جنتامایسین به منظور کاهش
 عفونت‌های بیمارستانی (آزمون In Vitro)**
Conference: 17th Iranian Conference on Biomedical Engineering (ICBME). 2010; (Speech)
Authors: محمد رفیعی نیا، حسن زرین مهر، علی پورثمر، علیرضا خاوندی، محسن جانملکی
- 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 Salahshoor 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 شناسایی بر مورفولوژی و اندازه گیری رفتار رهایش میکروسفرهای پلی یورتان حاوی داروی تنوفیلین تهیه شده به روش تبخیر حلال
Conference: 2006 یازدهمین کنفرانس مهندسی پزشکی (Speech)
Authors: محمد رفیعی نیا، مرتضی محمودی، شهریار حجتی امامی، فریبا اورنگ
- 2006** تاثیر تابش گاما و ماده افزودنی بر آزاد سازی داروی بتامتازون از سیستم دارورسانی زیست تخریب پذیری تشکیل شونده در محل
Conference: 2006 یازدهمین کنفرانس مهندسی پزشکی (Speech)
Authors: عاطفه پورجاهد، محمد رفیعی نیا، احمد جمشیدی، احمد جمشیدی
- 2006** تعیین خصوصیات میکروسفرهای شناسایی حاوی داروی سفتریاکسون و ارزیابی اثرات ضد میکروبی آن
Conference: 2006 یازدهمین کنفرانس مهندسی پزشکی (Speech)
Authors: محمد رفیعی نیا، لیلا صادق زاده، شاهین بنگدار، فریبا اورنگ

B) JOURNAL PAPERS

- ۱- اثر تغییر ترکیب شیمیایی بر رفتار رهایش و مورفولوژی میکروسفرهای پلی یورتان تهیه شده به روش تبخیر حلال
Journal: ۱۸۰-۱۷۳، زمستان ۱۳۸۳، شماره دوم، دوره اول، شماره دوم، زمستان ۱۳۸۳، ۱۷۳-۱۸۰
Authors: فریبا اورنگ، محمد رفیعی نیا
- 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
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Journal: Current Drug Delivery. 2009;6(2):184-191
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Journal: *Journal of Bionic Engineering*, Vol. 15, Issue: 5, pp. 907-913 *Authors:* Aghajanian, AH, Khazaei, BA, Khodaei, M, **Rafienia, M**
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Journal: *Journal of Biomedical Materials Research Part B-Applied Biomaterials*, 2019 May;107(4):933-950
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Journal: *Materials Science & Engineering C* 97 (2019) 141–155
Authors: Mansoureh Sattary, **Mohammad Rafienia**, Mohammad Kazemi, Hossein Salehi, Mohammad Mahmoudzadeh
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Journal: International Journal of Polymeric Materials and Polymeric Biomaterials, 68 (10)
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C) BOOKS

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Authors: Mohammad Rafienia, Davud Sadeghi, Hosein Mohammadi

An Introduction to Biomaterials

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Authors: Mohammad Rafienia, Ali Pursamar, Mahdis Shayan

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

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Authors: M. Janmaleki, M. Mahmoudi, M. Rafienia, and H. Peirovi

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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**

- 2017-2019 *Supervisors:* Mohammad Rafienia (me as Supervisor), Saeed Karbasi
Student: Daryush Khoda Bakhshi Hafshejan
Place: Isfahan University of Medical Sciences
Fabrication and evaluation of electrospun scaffold properties based on polyglycerol sebacate/polyvinyl alcohol/lignin nanocomposite to use nerve tissue engineering
- 2016-2018 *Supervisors:* Mohammad Rafienia (me as Supervisor), Ali Zarabi, Anushe Zargar
Student: Ahmad Saudi
Place: Isfahan University of Medical Sciences
Fabrication and evaluation of Biphasic calcium phosphate/Graphene nanocomposite coatings on titanium substrate for biomedical applications
- 2016-2018 *Supervisors:* Mohammad Rafienia (me as Advisor), Mehdi Ebrahimi
Student: Safura Farshid
Place: Isfahan University
Fabrication and evaluation of Poly(caperolactone)- lignin-Graphene nanocomposite scaffolds for nerve tissue engineering
- 2016-2018 *Supervisors:* Mohammad Rafienia (me as Advisor), Mehdi Ebrahimi
Student: Hosein Momeni
Place: Isfahan University
Evaluation of Physical, Mechanical and Cellular Properties of Polyhydroxybutyrate/Chitosan/ Al₂O₃ Nanocomposite Scaffold for Tissue Engineering Application
- 2015-2016 *Supervisors:* Mohammad Rafienia (me as Advisor), Saeed Karbasi
Student: Elahe Bahrmandi
Place: Isfahan University of Medical Sciences
Fabrication and Evaluation properties of hydrogel wound dressing based on starch, hyaluronic acid and propolis to repair scar cutaneous Leishmaniasis
- 2015-2019 *Supervisors:* Mohammad Rafienia (me as Supervisor), Ali Zarrabi
Student: Asghar Eskandari nia
Place: Isfahan University of Medical Sciences
Investigation of Chondrogenesis of Human Adipose Derived stem cells on Poly Vinyl Alcohol (PVA) /Acellular Cartilage Matrix (ACM) /Fibrin hybrid scaffold
- 2015-2017 *Supervisors:* Mohammad Taghi Joghataee, Mohammad Rafienia (me as Supervisor), Batul Hashemi Beni
Student: Mohsen Setayesh Mehr
Place: Iran University of Medical Sciences
Fabrication Polycaprolactone/Hydroxyapatite electrospun nanocomposite Containing Vitamin D for Jaw bone tissue engeneering Scaffold application
- 2014-2016 *Supervisors:* Mohammad Taghi Khorasani, Mohammad Rafienia (me as Supervisor), Hosein Salehi
Student: Mansure Sattari
Place: Science and Research Branch, Islamic Azad University
Fabrication and characterization of polycaprolactone and lignin nanocomposite scaffolds by electrospinning method for tissue engineering
- 2014-2016 *Supervisors:* Mohammad Rafienia (me as Supervisor), Hosein Salehi
Student: Mohamad Ali Salami
Place: Isfahan University of Medical Sciences
Synthesis and characterization of mesoporous magnesium silicate nanoparticles loaded by ibuprofen
- 2014-2016 *Supervisors:* S.A. Hassanzadeh-Tabrizi, Ashkan Bigham, Mohammad Rafienia (me as Advisor), Hosein Salehi
Student: Ashkan Bigham
Place: Islamic Azad University, Najaf Abad Branch
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 sulfate 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

- 2005 - 2006 *Student:* Rana Imani
Place: Amirkabir University of Technology
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
- 2005 - 2006 *Place:* Amirkabir University of Technology
Synthesis of Biodegradable Polyurethane Microspheres to Controlled Release of Theophiline
Supervisors: Fariba Orang, Mohammad Rafienia (me as Advisor)
Student: Morteza Mahmudi
- 2004 - 2005 *Place:* Amirkabir University of Technology
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
- 2003 - 2005 *Place:* Amirkabir University of Technology
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
- 2003 - 2004 *Place:* Amirkabir University of Technology
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 1st in the Ph.D. courses in Biomedical Engineering
From Amirkabir University of Technology
- 2007 Ranked 1st 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 3rd 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