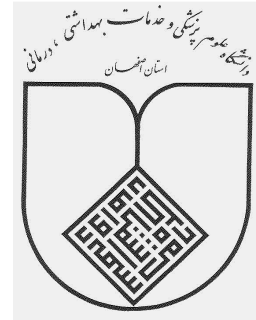


**CURRICULUM VITAE
MOHAMMAD RAFIENIA**



CONTACT INFORMATION

Professor

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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 research 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

- 2021-2022 **Fabrication and Characterization of 3D-Printed Polycaprolactone/Gelatin/Hydroxyapatite /Nano Clay for Bone Tissue Engineering**
Members: Mohammad Rafienia, Seyed Ali Poursamar, Mitra Naeemi seresht, Saba Nazari
Authority: Isfahan University of Medical Sciences
- 2021-2022 **- Fabrication and evaluation of properties of magnetic and porous Mg₂SiO₄-CuFe₂O₄ scaffold for hyperthermia and bone regeneration**
- Characterization and Study of biological behavior of magnetic and porous poly-3-hydroxybutirate modified Mg₂SiO₄-CuFe₂O₄ scaffold for hyperthermia and bone regeneration
Members: Mohammad Rafienia, Mohamamd reza Salamat, Ashkan Bigham, Mansureh Sattari, Alireza Sanati, Amir hamed Aghajanian
Authority: Isfahan University of Medical Sciences
- 2021-2022 **- In vitro biological evaluation for Electrospun Poly(Caprolactone)/Poly(Glycerol Sebacate)/ Multi-Walled Carbon Nanotubes Fibers for Nerve Tissue Engineering**
- Embedding Multi-Walled Carbon Nanotubes into Electrospun Poly(Caprolactone)/Poly(Glycerol Sebacate) Fibers for Nerve Tissue Engineering
Members: Mohammad Rafienia, Ahmad Saudi, Seyed Mojtaba Zabarjad, Ali Akbar Alizadeh
Authority: Isfahan University of Medical Sciences
- 2021-2022 **- Fabrication and Evaluation of properties of antibacterial bioactive glass/polycaprolactone nanocomposite scaffold by 3D printing method**
- Evaluation of Biological properties of Nano composite antibacterial bioactive glass/polycaprolacton 3D printed scaffold
Members: Mohammad Rafienia, Seyed Ali Poursamar, Zahra Golnia
Authority: Isfahan University of Medical Sciences
- 2021-2022 **- Fabrication and assessment of hybrid scaffolds based on polyurethane- gellan gum- hyaluronic acid/ glucosamine for meniscus tissue engineering**
- Evaluation of cellular behavior of polyurethane scaffolds with gellan gum- hyaluronic acid/ glucosamine coatings for meniscus tissue engineering
Members: Mohammad Rafienia, Nima Jamshidi, Melika Babaei, Maria Agheb, Mohammad Kazemi, Farshad Amiri
Authority: Isfahan University of Medical Sciences
- 2021-2022 **- Fabrication and assessment of nanocomposite scaffold based on poly(ϵ -caprolactone) containing curcumin and surfactin using double-nozzle electrospinning for wound dressing application**
- Evaluation of cellular behavior of poly(ϵ -caprolactone)- gelatin scaffold containing curcumin and surfactin for wound dressing application
Members: Mohammad Rafienia, Mitra Naeemi seresht, Mohadeseh Hadizadeh
Authority: Isfahan University of Medical Sciences
- 2020-2021 **Fabrication and evaluation of biphasic (PCL/HA-PCL-ECM)**

- nanocomposite scaffolds via LDM 3D printing technique toward cartilage tissue regeneration**
Members: Mohammad Rafienia, Mohsen Setayeshmehr, Seyed Ali Poursamar, Shima Ostovari, Seyed Mohammad Nourbakhsh
Authority: Isfahan University of Medical Sciences
- 2020-2021 **Introducing flexible and cost-effective polyurethane/reduced graphene oxide scaffold: quantification of geometrical changes during cyclic mechanical tests and evaluation of ability in bone regeneration**
Members: Mohammad Rafienia, Mohammad Salamat, Alireza Sanati
Authority: Isfahan University of Medical Sciences
- 2020-2021 **Synthesis of theranostic nanosystem based on mesoporous silica (MCM-41) for simultaneous tracing, imaging and treatment**
Members: Mohammad Rafienia, Elham Bidram, Lale Shariati, Yasaman Esmaeeli
Authority: Isfahan University of Medical Sciences
- 2020-2021 **Synthesis of mesoporous silica (MCM-41)-Gold NPs nanosystem for non-invasive fluorescence imaging and treatment of colon tumor cells**
Members: Mohammad Rafienia, Elham Bidram, Lale Shariati, Yasaman Esmaeeli
Authority: Isfahan University of Medical Sciences
- 2020-2021 **Design and synthesis of mesoporous silica (MCM-41)-chitosan smart nanosystem for enhancing curcumin load and drug delivery to breast tumor cells**
Members: Mohammad Rafienia, Elham Bidram, Lale Shariati, Yasaman Esmaeeli
Authority: Isfahan University of Medical Sciences
- 2020-2021 **Fabrication and evaluation of poly caprolacton/ ploy glycerol sebacate/ carbon quantum dot electrospun nanocomposite scaffold for muscle cardiac tissue engineering application**
Members: Mohammad Rafienia, Mehdi Mehdikhani, Sara Rastegar, Elahe Purazizi
Authority: Isfahan University of Medical Sciences
- 2020-2021 **Evaluation of cellular behavior on electrospun scaffold based on polycaprolactone containing carbon quantum dot electrospun for muscle cardiac tissue engineering application**
Members: Mohammad Rafienia, Mehdi Mehdikhani, Sara Rastegar, Elahe Purazizi
Authority: Isfahan University of Medical Sciences
- 2020-2021 **Synthesis and characterization of folic acid targeted and mebendazole loaded chitosan nanoparticles**
Members: Mohammad Rafienia, Asghar Eskandarinia, Maria Agheb, Fatemeh Ghahremani
Authority: Isfahan University of Medical Sciences
- 2020-2021 **Evaluation of subcutaneous implants consisted of folic acid targeted and mebendazole loaded chitosan nanoparticles in 4T1 breast cancer model in Balb/c mice**
Members: Mohammad Rafienia, Asghar Eskandarinia, Maria Agheb, Fatemeh Ghahremani
Authority: Isfahan University of Medical Sciences
- 2019-2021 **Assessment of $Mg_{2-x}Zn_xSiO_4$ (x = 0, 0.5, 1, 1.5, 2) nanoparticles**

- addition on physical, chemical, and biological properties of electrospun PCL-Silk fiber for bone tissue engineering**
Members: Mohammad Rafienia, Amin Orash Mohammad Salehi, Ashkan Bigham, Mohammad Reza Salamat
Authority: Isfahan University of Medical Sciences
- 2019-2020 **Investigation of sintering Temperature and Coating Effects on Physical, Chemical and Biological Properties of 3D Dimensional Calcium Aluminum silicate (Gehlenite) Scaffold for Bone Tissue Engineering**
Members: Mohammad Rafienia, Ashkan Bigham, Mansure Satari, Hamed Aghajanian, Mehdi Movahedi
Authority: Isfahan University of Medical Sciences
- 2019-2020 **Evaluation of cellular behavior of poly(caprolactone)/ silk fibroin/ strontium carbonate, bilayer nanocomposite membrane for bone tissue defects**
Members: Mohammad Rafienia, Mehdi Mehdikhani, Nilufar Etemadi, Elahe Purazizi
Authority: Isfahan University of Medical Sciences
- 2019-2020 **Fabrication and assessment of poly(caprolactone) and poly(caprolactone)/ silk/ strontium carbonate, bilayer nanocomposite membrane for guided bone regeneration**
Members: Mohammad Rafienia, Mehdi Mehdikhani, Nilufar Etemadi, Elahe Purazizi
Authority: Isfahan University of Medical Sciences
- 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 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 Souidi
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 Souidi, 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 **Conjugation 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 conjugated 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 Fe₃O₄ 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 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 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 - **Manufacture of In situ Forming Systems based on PLGA as corticosteroid Drugs Delivery System**
2007
Members: mohammad Rafienia, Hamid Mirzadeh, Hamid Mobedi, Ahmad Jamshidi
Authority: Iran Polymer and Petrochemical Institute
- 2003 - **Synthesis and characterization of Polyurethane Biomedical Grade for Medical Applications**
2004
Members: Mohammad Rafienia, Fariba Orang
Authority: Amirkabir University of Technology
- 2000 - **Strategic Research about applications of Controlled Release Technology in Drug, Food and Agriculture Industries**
2004
Members: Mohammad Rafienia, Shahriar Sharifi, Dr. Rafie, Amin mansur
Authority: Ministry of Science, Research and Technology
- 2001 - **Investigation of Effects of Porosity and Morphology on Release Behavior of Biological Agents from Polyurethane Microspheres**
2003
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
- ۱۳۹۳ کیوان شیرانی، سید محمد صادق نوربخش، **محمد رفیعی نیا**، داریوش سمنانی
 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
 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 Fassih
- ۱۳۹۰ تهیه نانوذرات پلی هیدروکسی بوتیرات اصلاح سطحی شده برای دارورسانی هدفمند به سلولهای سرطانی
Conference: ۱۳۹۰: دومین کنگره نانودارو و هادانشگاه علوم پزشکی جندی شاپور اهواز- ۱۶-۱۸ اسفند ۱۳۹۰
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)

- 2010 *Authors:* Mansooreh Satari, Mohammad Rafienia, Hamid Mobedi, Mohsen Janmaleki
بررسی خواص شیشه سرامیک سیستم لیتیم دی سیلیکات با افزودن عامل جوانه زای اکسیدنیوبیوم
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
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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 Sheikhsoradi, **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, 9 (3) (2020) 175-183
*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 Nanofibrous Scaffold**
Journal: Scientific Reports 10 (1) (2020) 1-15
*Authors: Asghar eskandarinia, Amirhosein Kefayat, Maria Agheb, **Mohammad Rafenia**, Moloud Amini Baghbadorani, Sepehr navid, Karim ebrahimpour, Darioush Khodabakhshi and fatemeh Ghahremani*
- 82- **Application of electrospun polycaprolactone fibers embedding lignin nanoparticle for peripheral nerve regeneration: *In vitro* and *In vivo* study**
Journal: International Journal of Biological Macromolecules, 159 (2020) 154-173
*Authors: Shahram Amini, Ahmad Saudi, Noushin Amirpour, Maliheh Jahromi, Samira Shariati Najafabadi, Mohammad Kazemi, **Mohammad Rafienia**, Hossein Salehi*
- 83- **Corneal stromal regeneration by hybrid oriented poly (ϵ -caprolactone)/lyophilized silk fibroin electrospun scaffold**
Journal: International Journal of Biological Macromolecules, 161 (2020) 377-388
*Authors: Amin Orash Mahmoud Salehi, Mohammad Sadegh Nourbakhsh, **Mohammad Rafienia**, Alireza Baradaran-Rafii, Saeed Heidari Keshel*
- 84- **Electrospun captopril-loaded PCL-carbon quantum dots nanocomposite scaffold: Fabrication, characterization, and in vitro studies**
Journal: Polymers for Advanced Technologies 31 (12) (2020), 3302-3315
*Authors: Mina Ghorghi, **Mohammad Rafienia**, Vahid Nasirian, Fatemeh S Bitaraf, Anah M Gharravi, Ali Zarrabi*
- 85- **Fabrication and characterisation of chitosan/polyvinyl alcohol-based transparent hydrogel films loaded with silver nanoparticles and sildenafil citrate for wound dressing applications**
Journal: Materials Technology (2020) doi.org/10.1080/10667857.2020.1842151
*Authors: Ali Samadi, Saeed Azandeh, Mahmoud Orazizadeh, Vahid Bayati, **Mohammad Rafienia**, Masoud Ali Karami*
- 86- **The journey of multifunctional bone scaffolds fabricated from traditional toward modern techniques**
Journal: Bio-Design and Manufacturing (2020) 3:281–306
*Authors: Ashkan Bigham, Firoozeh Foroughi, Erfan Rezvani Ghomi, **Mohammad Rafienia**, Rasoul Esmaeely, Neisiany Seeram Ramakrishna*
- 87- ***In Silico* Activity of AS1411 Aptamer Against Nucleolin of Cancer Cells**
Journal: Iranian Journal of Blood & Cancer 12 (3) (2020) 95-100
*Authors: Zohreh Farahbakhsh, Mohammad Reza Zamani, **Mohammad Rafienia**, Oğuz Gülseren, Mahmoud Mirzaei*
- 88- **Polycaprolactone/Gelatin/Hydroxyapatite nanocomposite scaffold seeded with Stem cells from human exfoliated deciduous teeth to enhance bone repair: *in vitro* and *in vivo* studies**
Journal: Materials Technology (2020) doi.org/10.1080/10667857.2020.1837488
*Authors: Mansoureh Sattary, Amirhosein Kefayat, Ashkan Bigham, **Mohammad Rafienia***
- 89- **A 3D nanostructured calcium-aluminum-silicate scaffold with hierarchical meso-macroporosity for bone tissue regeneration: Fabrication, sintering behavior, surface modification and *in vitro* studies**
Journal: Journal of the European Ceramic Society 41 (1) (2021), 941-962

- Authors: Ashkan Bigham, Amir Hamed Aghajanian, Mehdi Movahedi, Mansoureh Sattary, **Mohammad Rafienia**, Lobat Tayebi
- 90- **Fabrication and Characterization of Glycerol/Chitosan/Polyvinyl Alcohol-Based Transparent Hydrogel Films Loaded with Silver Nanoparticles for Antibacterial Wound Dressing Applications**
Journal: Advanced Biomedical Research 10 (1) (2021), 4
doi.org/10.1080/10667857.2020.1837488
 Authors: Ali Samadi, Saeed Azandeh, Mahmoud Orazizadeh, Vahid Bayati, **Mohammad Rafienia**, Masoud Ali Karami
- 91- **Synthesis of Polyurethane/Hyaluronic acid/Royal Jelly Electrospun Scaffold and Evaluating its Properties for Wound Healing**
Journal: Journal of Mazandaran University of Medical Sciences 31 (192) (2021) 1-11
 Authors: Mehdi Movahedi, Azadeh Asefnejad, **Mohammad Rafienia**, Mohammad Taghi Khorasani
- 92- **A ternary nanocomposite fibrous scaffold composed of poly(ϵ -caprolactone)/Gelatin/Gehlenite ($\text{Ca}_2\text{Al}_2\text{SiO}_7$): Physical, chemical, and biological properties in vitro**
Journal: Polymers for Advanced Technologies 31 (2) (2021), 582-598
 Authors: Moloud A Baghbadorani, Ashkan Bigham, **Mohammad Rafienia**, Hossein Salehi
- 93- **Adipose-Derived Stem Cells Growth and Proliferation Enhancement Using Poly (Lactic-co-Glycolic Acid)(PLGA)/Fibrin Nanofiber Mats**
Journal: Journal of Applied Biotechnology Reports, (2021)
[10.30491/jabr.2020.223551.1199](https://doi.org/10.30491/jabr.2020.223551.1199)
 Authors: Mohsen Norouzi, **Mohammad Rafienia**, Elahe Poorazizi, Mohsen Setayeshmehr
- 94- **Nanocarbon-assisted biosensor for diagnosis of exhaled biomarkers of lung cancer: DFT approach**
Journal: Eurasian Chemical Communications, 154-161
 Authors: Mahmoud Mirzaei, Oguz Gulseren, **Mohammad Rafienia**, Amirhossein Zare
- 95- **Novel bilayer electrospun poly (caprolactone)/silk fibroin/strontium carbonate fibrous nanocomposite membrane for guided bone regeneration**
Journal: Journal of Applied Polymer Science 138 (16) (2021) 50264
 Authors: Niloofar Etemadi, Mehdi Mehdikhani, Elahe Poorazizi, **Mohammad Rafienia**
- 96- **In vitro Studies of Polycaprolactone Nanofibrous Scaffolds Containing Novel Gehlenite Nanoparticles**
Journal: Journal of Medical Signals & Sensors, 11 (2021) 131-137
 Authors: Moloud Amini Baghbadorani, Ashkan Bigham, **Mohammad Rafienia**, Hossein Salehi
- 97- **Zn-substituted Mg_2SiO_4 nanoparticles-incorporated PCL-silk fibroin composite scaffold: A multifunctional platform towards bone tissue regeneration**
Journal: Materials Science and Engineering: C, 127 (2021) 112242
 Authors: Ashkan Bigham, Amin Orash Mahmoud Salehi, **Mohammad Rafienia**, Mohammad Reza Salamat, Shahram Rahmati, Maria Grazia Raucchi, Luigi Ambrosio
- 98- **Poly glycerol sebacate/polycaprolactone/carbon quantum dots fibrous scaffold as a multifunctional platform for cardiac tissue engineering**
Journal: Materials Chemistry and Physics 266 (2021) 124543
 Authors: Sara Rastegar, Mehdi Mehdikhani, Ashkan Bigham, Elahe Poorazizi, **Mohammad Rafienia**
- 99- **A bifunctional electrospun nanocomposite wound dressing containing surfactin and**

curcumin: In vitro and in vivo studies*Journal:* Materials Science and Engineering: C, 129 (2021) 112362*Authors:* Mohadeseh Hadizadeh, Mitra Naeimi, **Mohammad Rafienia**, Akbar Karkhaneh100- **Synthesis and characterization of cellulose nanofibers/chitosan/cinnamon extract wound dressing with significant antibacterial and wound healing properties***Journal:* Journal of the Iranian Chemical Society, <https://doi.org/10.1007/s13738-021-02374-x>*Authors:* Amirhosein Kefayat, Ramin Hamidi Farahani, **Mohammad Rafienia**, Ebrahim Hazrati, Nafiseh Hosseini Yekta**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)

THESES SUPERVISION

- 2020-2021 **Evaluation of a bi-layered (PCL/BG-PCL/ECM) scaffold made by 3D printing for cartilage regeneration**
Supervisors: Mohammad Rafienia (me as Supervisor), Seyed Ali Poursamar, Mohsen Setayeshmehr, Kamran Mansuri
Student: Samira Allah Dane
- 2020-2021 **Evaluation of Physical, Chemical and Biological Properties of 3D Printed Scaffolds Based on Polycaprolactone / Gelatin / CaMgSio₂ Mesoporous Nanocomposite for Application in Bone Tissue Engineering**
Supervisors: Mohammad Rafienia (me as Supervisor), Seyed Ali Poursamar
Student: Zahra Mirzavandi
- 2020-2021 **Evaluation of the Physical, chemical and biological properties of bilayer wound dressing consisting of polyCaprolactone / polyvinyl alcohol-chitosan containing sildenafil citrate using 3D printing and electrospinning**
Supervisors: Mohammad Rafienia (me as Supervisor), Seyed Ali Poursamar
Student: Elham Salar Rezaee
- 2019-2021 **Fabrication and Characterization of Physical, Mechanical, and Biological Properties of Polyhydroxybutyrate-Keratin/Nanohydroxyapatite Nanocomposite Scaffold with Luminescence Properties for Bone Tissue Engineering Applications**
Supervisors: Mohammad Rafienia (me as Supervisor), Saeed Karbasi
Student: Puria Sarrami
- 2019-2021 **Fabrication and Evaluation of Biosensor Properties Electropolymerization of poly(3,4-ethylenedioxythiophene) onto polyvinyl alcohol graphene quantum dot-cobalt oxide nano composite for detecting biomarker homovanillic acid and vanillylmandelic acid adrenal medulla cancer**
Supervisors: Mohammad Rafienia (me as Supervisor), Abdollah Nourbakhsh
Student: Mohammad Mehdi Vafae
- 2018-2020 **In-vivo evaluation of Polycaprolactone scaffold on colon cancer metastasis**
Supervisors: Mohammad Rafienia
Student: Amirhosein Kefayat
- 2018-2020 **Fabrication and Evaluation of Physical, Mechanical and Cellular Properties of Polycaprolactone/Gelatin Electrospun Nanocomposite Scaffold Reinforced with Gehlenite Nano Particles for Bone Tissue Engineering Applications**
Supervisors: Mohammad Rafienia
Student: Moulud Amini Baghbaderani
- 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 nanocomposite coatings on titanium substrate for biomedical applications**
Supervisors: Mohammad Rafienia (me as Advisor), Mehdi Ebrahimian
Student: Safura Farshid

- 2016-2018 *Place:* Isfahan University
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
- 2016-2018 *Place:* Isfahan University
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
- 2015-2016 *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
Supervisors: Mohammad Rafienia (me as Supervisor), Ali Zarrabi
Student: Asghar Eskandari nia
- 2015-2019 *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
Supervisors: Mohammad Taghi Joghataee, Mohammad Rafienia (me as Supervisor), Batul Hashemi Beni
Student: Mohsen Setayesh Mehr
- 2015-2017 *Place:* Iran University of Medical Sciences
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
- 2014-2016 *Place:* Science and Research Branch, Islamic Azad University
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
- 2014-2016 *Place:* Isfahan University of Medical Sciences
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
- 2014-2016 *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
- 2014-2016 *Place:* Isfahan University of Technology
Synthesis and characterization of piezoelectric barium titanate nanocoating on titanium dental implant
Supervisors: Mohammad Rafienia (me as Supervisor)
Student: Shahram Rahmati
- 2014-2016 *Place:* Isfahan University of Medical Sciences
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: Mohamad 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
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 Technology2003 - 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 Technology2003 - 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 Satari2011 **Using of Corals As Bioceramic In Restoration Of Bone Defects***Pioneers:* Mohammad Rafienia- Ahmad Toghi Eshghi2008 **In Situ Forming Drug Delivery System Based on Poly Lactic-Glycolic Acid In Order To Release Corticosteroid Drugs***Pioneers:* Mohammad Rafienia- Arash Momeni Borujeni2007 **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 Technology2007 Ranked 1nd in the Ph.D. research studies in Biomedical Engineering
From Amirkabir University of Technology2001 Ranked 2nd in the M.Sc. courses in Biomedical Engineering, Amirkabir
University of Technology
From Amirkabir University of Technology1998 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