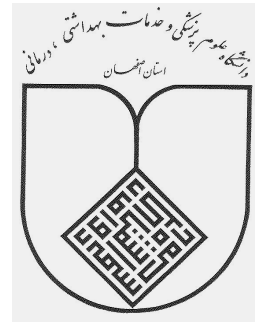


**CURRICULUM VITAE
MOHAMMAD RAFIENIA**



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, TERMODYNAMIC 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 Babae, 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**
2004 **Medical Applications**
Members: Mohammad Rafienia, Fariba Orang
Authority: Amirkabir University of Technology
- 2000 - **Strategic Research about applications of Controlled Release Technology**
2004 **in Drug, Food and Agriculture Industries**
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**
2003 **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
- 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
- ۱۳۹۴ 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 اسفند ۱۶-۱۸ اهواز
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** *Authors:* منصوره ستاری، امیر عباس نوربخش، پریسا گوهریان، محمد رفیعی نیا
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 Salahshoore Kordestani, Fathollah Moztafzade, 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 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 پذیر 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 نشاسته حاوی داروی سفتریاکسون و ارزیابی اثرات ضد میکروبی آن
Conference: 2006 (Speech) یازدهمین کنفرانس مهندسی پزشکی
Authors: محمد رفیعی نیا، لیلا صادق زاده، شاهین بنکدار، 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، مجله مهندسی پزشکی زیستی، دوره اول، شماره دوم، زمستان ۱۳۸۳، ۱۸۰-۱۷۳
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, Rafienia 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, Motahharez Hosseini
- 13- **Investigation of drug release and ¹H-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., Tahiri, 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, Tayebbeh 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 رفیعی‌نیا، 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)، ۳۴۹-۳۴۲
 نویسندگان: عبدالله نوربخش، هدایت حسینی منوجان، محمدرافیعی‌نیا
- 29- **A new approach to fabrication of Cs/BG/CNT nanocomposite scaffold towards 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-Hosseiniabadi
- 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, Mohammad 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 Valiani^{1*}, 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 Seyedbrahimi, 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 Sadrjehani
- 43- **Design, synthesis, characterization and bioactivity evaluation of polyglycerol-grafted Fe₃O₄ nanoparticles**
 مجله پژوهشهای سلولی و مولکولی (مجله زیست شناسی ایران) جلد ، ۲۹ شماره 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-ZnFe₂O₄ 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 Hassanzadeh Tabrizi
- 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 Rafienia**, 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 Sheikmoradi, **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- **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
- 86- ***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
- 87- **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
- 88- **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
- 89- **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
- 90- **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
- 91- **Adipose-Derived Stem Cells Growth and Proliferation Enhancement Using Poly (Lactic-co-Glycolic Acid)(PLGA)/Fibrin Nanofiber Mats**
Journal: Journal of Applied Biotechnology Reports, 8 (4) (2021) 361-369
Authors: Mohsen Norouzi, **Mohammad Rafienia**, Elahe Poorazizi, Mohsen Setayeshmehr
- 92- **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
- 93- **Novel bilayer electrospun poly (caprolactone)/silk fibroin/strontium carbonate fibrous nanocomposite membrane for guided bone regeneration**
Journal: Journal of Applied Polymer Science 138:e50264 (2021) 1-18
Authors: Niloofar Etemadi, Mehdi Mehdikhani, Elahe Poorazizi, **Mohammad Rafienia**
- 94- **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
- 95- **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 Raucci, Luigi Ambrosio
- 96- **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**
- 97- **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 Karkhaneh
- 98- **Polyurethane-Nanolignin Composite Foam Coated with Propolis as a Platform for Wound Dressing: Synthesis and Characterization**
Journal: Polymers, 13 (18) (2021), 3191
Authors: Zari Pahlevanneshan, Mohammadreza Deypour, Amirhosein Kefayat, **Mohammad Rafienia**, Paweł Sajkiewicz, Rasoul Esmaeely Neisiany, Mohammad Saeid Enayati
- 99- **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, 19 (9) (2022) 1191–1202
Authors: Amirhosein Kefayat, Ramin Hamidi Farahani, **Mohammad Rafienia**, Ebrahim Hazrati, Nafiseh Hosseini Yekta
- 100- **Electrophoretic deposition of biphasic calcium phosphate/graphene nanocomposite coatings on Ti6Al4V substrate for biomedical applications**
Journal: Journal of Alloys and Compounds 892 (2022) 162150
Authors: Safoora Farshid, Mehdi Ebrahimian-Hosseiniabadi, **Mohammad Rafienia**
- 101- **Recent advancement in electrode materials and fabrication, microfluidic designs, and self-powered systems for wearable non-invasive electrochemical glucose monitoring**
Journal: Applied Materials Today, 26 (2022) 101350
Authors: Alireza Sanati, Yasaman Esmaeili, Elham Bidram, Laleh Shariati, **Mohammad Rafienia**, Sara Mahshid, Onur Parlak
- 102- **Mesoporous silica@ chitosan@ gold nanoparticles as “on/off” optical biosensor and pH-sensitive theranostic platform against cancer**
Journal: International Journal of Biological Macromolecules, 202 (2022) 241-255
Authors: Yasaman Esmaeili, Mohammad Khavani, Ashkan Bigham, Alireza Sanati, Elham Bidram, Laleh Shariati, Ali Zarrabi, Nafise Arbab Jolfaie, **Mohammad Rafienia**
- 103- **Fabrication and assessment of a novel hybrid scaffold consisted of polyurethane-gellan gum-hyaluronic acid-glucosamine for meniscus tissue engineering**
Journal: International Journal of Biological Macromolecules, 203 (2022) 610-622
Authors: Farshad Amiri, Melika Babaei, Nima Jamshidi, Maria Agheb, **Mohammad Rafienia**, Mohammad Kazemi
- 104- **An in vitro and in vivo study of PCL/chitosan electrospun mat on polyurethane/propolis foam as a bilayer wound dressing**
Journal: Biomaterials Advances, 135 (2022) 112667
Authors: Mohsen Shie Karizme, Seyed Ali Poursamar, Amirhosein Kefayat, Zohreh Farahbakhsh, **Mohammad Rafienia**
- 105- **A study on the role of multi-walled carbon nanotubes on the properties of electrospun Poly (Caprolactone)/Poly (Glycerol sebacate) scaffold for nerve tissue applications**
Journal: Materials Chemistry and Physics 282 (2022) 125868
Authors: Ahmad Saudi, Seyed Mojtaba Zebarjad, Hamed Alipour, Elham Katouezadeh, Aliakbar Alizadeh, **Mohammad Rafienia**
- 106- **In Vitro Study of the Recruitment and Expansion of Mesenchymal Stem Cells at the Interface of a Cu-Doped PCL-Bioglass Scaffold**
Journal: Biomimetics, 7 (1) (2022) 1-14
Authors: Behnaz Malekhamadi, Vahid Esfahanian, Fatemeh Ejeian, Maziar Ebrahimi Dastgurdi, Maria Agheb, Faranak Kaveian, **Mohammad Rafienia**, Mohammad Hossein Nasr-Esfahani
- 107- **Evaluation of the effects of glucosamine sulfate on poly (3-hydroxybutyrate)-chitosan/carbon nanotubes electrospun scaffold for cartilage tissue engineering applications**
Journal: Polymer-Plastics Technology and Materials, 61 (11) (2022) 1244-1264
Authors: Negin Sadat Golshayan, Saeed Karbasi, Elahe Masaeli, Elahe Bahremandi-Toloue, Mohammad Hossein Nasr-Esfahani, **Mohammad Rafienia**
- 108- **Biodegradable and Biocompatible Subcutaneous Implants Consisted of pH-sensitive Meprednisolone-Loaded/Folic acid-targeted Chitosan Nanoparticles for Murine Triple-Negative Breast Cancer Treatment**
Journal: Journal of Nanobiotechnology, 20 (169) (2022) 1-16
Authors: Amirhosein Kefayat, Maryam Hosseini, Fatemeh Ghahremani, Nafise Arbab Jolfaie, **Mohammad Rafienia**

- 109- **Evaluation of the Morphological Effects of Hydroxyapatite Nanoparticles on the Rheological Properties and Printability of Hydroxyapatite/Polycaprolactone Nanocomposite Inks and Final Scaffold Features**
Journal: 3D Printing and Additive Manufacturing, <https://doi.org/10.1089/3dp.2021.0292>
Authors: Mansure Kazemi, Motahareh Mirzadeh, Hasti Esmaeili, Elahe Kazemi, **Mohammad Rafienia**, Seyed Ali Poursamar
- 110- **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, 37 (5) (2022) 355-365
Authors: Ali Samadi, Saeed Azandeh, Mahmoud Orazizadeh, Vahid Bayati, **Mohammad Rafienia**, Masoud Ali Karami
- 111- **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, 37 (5) (2022) 302-315
Authors: Mansoureh Sattary, Amirhosein Kefayat, Ashkan Bigham, **Mohammad Rafienia**
- 112- **A 3D macroporous and magnetic Mg₂SiO₄-CuFe₂O₄ scaffold for bone tissue regeneration: Surface modification, *in vitro* and *in vivo* studies**
Journal: Biomaterials advances, 137 (2022) 212809
Authors: Amir Hamed Aghajanian, Ashkan Bigham, Alireza Sanati, Amirhosein Kefayat, Mohammad Reza Salamat, Mansoureh Sattary, **Mohammad Rafienia**
- 113- **Promoting keratocyte stem like cell proliferation and differentiation by aligned polycaprolactone-silk fibroin fibers containing Aloe vera**
Journal: Biomaterials advances, 137 (2022) 212840
Authors: Amin Orash Mahmoud Salehi, Saeed Heidari Keshel, **Mohammad Rafienia**, Mohammad Sadegh Nourbakhsh, Alireza Baradaran-Rafiih
- 114- **Promoting keratocyte stem like cell proliferation and differentiation by aligned polycaprolactone-silk fibroin fibers containing Aloe vera**
Journal: Journal of Tissue Engineering and Regenerative Medicine, (2022)
<https://doi.org/10.1002/term.3331>
Authors: Melika Babaei, Nima Jamshidi, Farshad Amiri, **Mohammad Rafienia**

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

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)

Biomaterials and Clinical Use in Joint Replacement

2022; (Translation, in Farsi)

Authors: Mohammad Rafienia, Ahmad Saudi, Seyed Ali Poursamar, Seyed Mohammad Hossein Tabatabaei Nodushan**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), Abdolah 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
Place: Isfahan University
- 2016-2018 **Fabrication and evaluation of Poly(caperolactone)- lignin-Graphene nanocomposite 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 engineering 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 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 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 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