

Curriculum vitae

Personal data

Name:

Nahid Hassanzadeh Nemati

Position:

Professor assistant of Biomaterials Engineering at Islamic Azad University, Science and Research Branch of Tehran

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Date and Place of Birth:

1979, Tehran

Citizenship:

Iran

Education

- Islamic Azad University, Science and Research Branch of Tehran, Iran, PhD, Biomedical Engineering (Biomaterial), 2004-2010.
- Islamic Azad University, Science and Research Branch of Tehran, Iran, M.Sc, Biomedical Engineering (Biomaterial), 2001-2003.
- Sahand University of Technology, Tabriz, Iran, B.Sc, Materials Engineering (*Metallurgy*), 1997-2001.

Teaching Experience

- An Introduction to Materials used in Medicine
- Biomaterial Prostheses
- Biomechanics of bone and bone injuries
- Applications of metals in medicine
- The Properties and methods of surface modifications of biomaterials
- Properties of Engineering Materials
- Materials Science
- Physical Properties of Materials
- Metallurgy in production
- polymers
- Research Methods and Information Systems
- Thermodynamic
- Physic 1
- Chemistry'1
- Physic Lab.

Research And Related Activities

- Biomaterials Design and Preparation
- Orthopedic and Dental Implants
- Artificial Muscles
- Smart Materials specially Shape memory Alloys
- Extracting Biological Materials from Natural Sources for Using in Medical Applications
- Surface Modification and Characterization of Shape Memory NiTi Alloys

- Tissue Engineering

Publications

Refereed Articles (Published Or Forthcoming)

I. [Journal Papers](#)

1. Mirhadi, S. M., Nemati, N. H., Tavangarian, F., & Joupari, M. D. (2018). Fabrication of hierarchical meso/macroporous TiO₂ scaffolds by evaporation-induced self-assembly technique for bone tissue engineering applications. *Materials Characterization*, 144, 35-41.
2. Naghizadeh, S., Hassanzadeh Nemati, N., Hassani Najafabadi, A., Niknejad, H., & Khani, M. M. (2018). Controlled release of fluorouracil (5-FU) from chitosan-co-poly (ethylene glycol)/poly (glycerol sebacate)-co-poly (ethylene glycol)-coated iron oxide. *International Journal of Polymeric Materials and Polymeric Biomaterials*, 2018; 67(4), 212-220.
3. N.Hassanzadeh & et al, drug delivery behavior of titania nanotubes array coated by chitosan polymer, *Materials Discovery*, 2017; Vol. 8:9-17.
- 4 . N.Hassanzadeh & et al, Fabrication of Porous Segments Using Ti-6Al-4V Chips for Orthopaedic Applications, *Journal of Modern Processes in Manufacturing and* , 2015;vol.4(6):59-66.
5. T.Moshfeghi, N.Hassanzadeh, V.Dehlaghi & S.K.Sadrnezhaad, Fracture Analysis of the Orthopedic Plates used in Joining of the Lower-Limb Bones, *Cumhuriyet University Faculty of Science Science Journal (CSJ)*, 2015; Vol. 36, No: 3 Special Issue, ISSN: 1300-1949: 2718-2724.
6. N.Hassanzadeh & et al, Fabrication of a Hard Tissue Replacement Using Natural Hydroxyapatite Derived from Bovine Bones by Thermal Decomposition Method, *International Journal of Organ Transplantation Medicine*, 2014; Vol. 5 (1):23-31.

7. S.K.Sadrnezhaad, M.Aryana, N.Hassanzadeh Nemati, M.Alizadeh, A.Ebadifar, Single and double stage sintering of mechanically alloyed powder for nanostructured Ti6Al4V foams usable in cancellous scaffolds, *International Heat Treatment and Surface Engineering*, vol.7, no.1, pp. 43-48, 2013.
8. N.Hassanzadeh & et al., Effect of chemical surface treatment on niti alloy adhesion for using in smart metal/polymer bio-composites, *Majlesi Journal of Engineering Materials*, 2011; 5(2):11-18.
10. N. Hassanzadeh Nemati and S.K. Sadrnezhaad, Characterization of Constrained Aged Niti Strips for Using In Artificial Muscle Actuators, *International Journal of Engineering A*, 2011; 24(4):321-330.
11. N.Hassanzadeh & et al., Effect of electrical current on Nitinol medical staples shape memory, *Journal of Modern Processes of Manufacturing Engineering*, 2010; 1(4):63-71.
12. N.Hassanzadeh & et al, Improved adhesion of NiTi wire to silicone matrix for smart composite medical applications, *Materials and Design*. 2009;30:3667-3672.
13. N.Hassanzadeh & et al, Effect of Constrained Ageing on Orthodontic Wires for Changing Their Control to Reinforcements in Smart Metal/Polymer Composite, *Journal of Engineering Materials*, 2010; 2(1): 7-17.
14. N.Hassanzadeh & et al, Biocompatibility of Iranian NiTi Alloy, *Hakim*. 2006;9(2):50-56.
15. N.Hassanzadeh, Uses of Bioceramics In Body, *Iran's Leading Monthly on Medical Engineering*, 2006;65:18-20.
16. N.Hassanzadeh & et al, Effect of Gaseous Impurities on Microstructure and Hardness of Nitinol Shape Memory Alloy, *Metallurgy Engineering*. 2005;8(20):56-63.
17. N.Hassanzadeh & et al, Effect of Bending on Shape Memory Staple for Joining Bone, *Metallurgy Engineering*. 2004;7(18):10-16.

II: Conference Papers

1. N.Hassanzadeh & et al, Effect of Sn on structure and compression properties of Ti-Nb-Sn alloy made by SPS, 25th ISME, Modares university, Tehran, Iran, 2017.
2. N.Hassanzadeh & M.Lalinia, Coating of Ti on Porous PEEK for Using in Orthopedic Applications, 3rd International Conference on researches in Science and Engineering, Bangkok, Thailand, 31th Aug.2017.
3. N.Hassanzadeh & F.Bahrani, Coating of Titania-Polydopamine on Dental Implants for Improving Its Attachment to Gingival and Dentin, 3rd International Conference on researches in Science and Engineering, Bangkok, Thailand, 31th Aug.2017.
4. N.Hassanzadeh & M.Lalinia, Review on Coating of Metal on Polymer for Using in Medical Applications, International Conference on Science and engineering, Rome, Italy, July2016.
5. N.Hassanzadeh & et al, Decellularization of xenograft bone through integrating physical and chemical methods to generate scaffold for bone tissue engineering, international conference on research in engineering, science and technology, Istanbul, Turkey, july, 2015.
6. N.Hassanzadeh & et al, Effect of calcium oxide in the chemical composition of bioactive glass on the construction of spherical mesoporous nanoparticles for medical applications, International Conference on new researches in chemistry and chemical engineering, Tehran, Iran, Sep.2015.
7. N.Hassanzadeh & et al, Production of Ti foams using NaCl ceramic and Mg metal space holder, 1st International Conference on mining, metals and materials eng., 16 Des.2015.
8. N.Hassanzadeh & et al, Coating spherical mesoporous bioglass nanoparticles on 316-L steel using sol-gel, international conference on science and engineering, Dubai, Dec.2015.
9. N.Hassanzadeh & et al, Applicability of uses of spherical mesoporous bioglass nanoparticles for using bone holes caused by cancer, international conference on science and engineering, Dubai, Dec.2015.
10. N.Hassanzadeh & M.Parsafar, A comparative study on Fe35Mn2Ti and Fe35Mn2Zr as biodegradable alloys, International conference on Research and Science Technology, Malaysia, 14 Dec.2015.
11. M.Daliri Joupari, N.Hassanzadeh & M.Naghinezhad, Biological behavior of 2-D multi-walled carbon nanotubes scaffold by cell culturing method, NCWNN1394, Karaj, Iran, May 2015.

12. N.Hassanzadeh & M.Naghinezhaad, the Effect of covalent and non-covalent functionalizing of MWCNTs on their electrical properties and stability of the dispersion, the 2nd National conference on applied researches in the sciences of chemistry, biology and geology, Tehran, Iran, Feb.2015.
13. N.Hassanzadeh, T.Moshfeghi & et al, the causes of bone fracture plates used in feet bones, the 2nd National conference on applied researches in the sciences of Electric, Mechanic and Mechatronic, Tehran, Iran, Feb.2015.
14. N.Hassanzadeh & T.Ghodusi, Coating Ca-Mg complex on nitinol using electrophoretic decomposition method, International conference on Research on Science and Thechnology, Malysia, 14 Dec.2015.
15. N.Hassanzadeh & M.Naghinezhaad, Review on structural and biological properties of CNTs for nanorecognition and nanotreatment in medicine, The National congress on nanomed application in medical sciences, Semnan, Iran, May.2014.
16. N.Hassanzadeh & M.Naghinezhaad, Study on carbon nanotubes (CNTs) as smart biomaterials for using in neural tissue regeneration, Basic and clinical neuro science/2rd congress, Tehran,Iran, Oct.2013.
17. N.Hassanzadeh & et al, Fabrication of Porous Ti-6Al-4V Segments using its Chips for Orthopedic Applications, ICMH & NAMIC, Majlesi new town, Isfahan, Iran, Aug.2013.
- 18.N.Hassanzadeh & et al, Analysis of compressive strength of porous titanium alloy for hard tissue using finite element method, International conference on mechanical engineering and advanced technology , Isfahan, Iran, October 2012.
- 19.N.Hassanzadeh & N.Honarmand, Fabrication of Ti / TCP composite and study on its bioactivity property, 6IMES, 2012.
20. N.Hassanzadeh & et al, Performing a Calcium-Phosphate Layer on Porous NiTi Alloy for Using in Medical Applications, 12th Natinal Corrosion Congrerss, Amir kabir University of Technology, Tehran, Iran, May 2011.
21. N.Hassanzadeh & et al, Production and Characterization of Ti6Al4V Foam for Cancellous Bone Implants, the 2nd International Conference on Materials Heat Treatment (ICMH2011), Majlesi Branch, Islamic Azad University, Isfahan, Iran, May 2011,
22. N.Hassanzadeh & et al, Extraction of Natural hydroxyapatite from Bovine Femoral Bone using Thermal Decomposition Method, 17th Iranian Conference On Biomedical Engineering. Isfahan University of Medical Sciences, Isfahan, iran, 2010.

23. N.Hassanzadeh & et al, Characterization of a Smart Nitinol/Silicone Rubber Composite for using in Soft Tissue Replacements, The 2nd International Conference on Composites: Characterization, Fabrication and Application (CCFA-2), Kish Island, Iran, 2010.
24. N.Hassanzadeh & et al, Effect of Surface Chemical Modifying on NiTi Biocompatibility, Islamic Azad University of Qazvin, Qazvin, Iran, 2010.
25. N.Hassanzadeh & et al, Effect of electrical current on recoverd strain obtained from shape memory effect in Nitinol, The Joint Conference between 13th Iranian Metallurgical Engineers Society Annual Congress 21th Iranian Foundryman Society Seminar, Bahonar University, Kerman, Iran, November 2009.
26. N.Hassanzadeh & et al, Effect of ageing on electrical resistivity of Ni₅₀Ti₄₉.1 alloy using in medical actuators, Proceedings of the 4th National conference on heat treatment.P.10, Isfahan, Iran, March 2009.
27. N.Hassanzadeh & et al, Two way shape memory effect in superelastic NiTi plate using in artificial sphincter actuator, Proceedings of the 4th National conference on heat treatment.P.10, Isfahan, Iran, March 2009.
28. N.Hassanzadeh & et al, Effect of Homogenization on The Microstructure and Shape Memory Properties of Ni-Ti Alloy, The first National Congress of New Material, Materials and Energy Research Center(MERC), Karaj, Iran, June 2008.
29. N.Hassanzadeh & et al, Fabrication of NiTi(Si) Thin Film for Application in Bio-MEMs Usable in Medicine, 14th Iranian Conference On Biomedical Engineering. Shahed University, Tehran, iran, 2008.
30. N.Hassanzadeh & et al, Effect of Bending on Shape Memory Staple Application in Medical Uses, 8th Annual Metallurgical Engineering Congress of Iran. Isfahan University of Technology, Isfahan, Iran, 2004.