

Curriculum Vitae

Seyed Yahya Rahnamaee

Contact Details

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Education

- 2014-Present **Ph.D. Candidate in Nanotechnology & Nanoscience (NanoBiomaterials)**
Sharif University of Technology
Thesis Title: *Physical and chemical surface modification of titanium by nanostructured materials, and biological characterization for use in bone tissue Implants*
Supervisors: Prof. Reza Bagheri, Prof. Manouchehr Vosoughi, Dr. Ali Samadi Kouchaksaraee
- 2011-2013 **M.Sc. in Materials Science and Engineering (NanoBiomaterials)**
Sharif University of Technology
Thesis Title: *Fabrication of Dental Implant from Ti-6Al-4V with Nanostructured Hydroxyapatite coating (Grade: 20/20)*
Supervisors: Prof. Seyed Khatiboleslam Sadrnezhad
- 2004-2009 **B.S. in Materials Science and Engineering**
Iran University of Science and Technology
Thesis Title: *Dechlorination Of zinc Dross (Grade: 19/20)*
Supervisors: Prof. Hekmat Razavizadeh, Prof. Seyed Hossein Seyedein

Honors

- Ranked 5th in nanomaterials section in the National Graduate University Entrance Exam, 2011
- Ranked 1st among M.Sc students in Nano Science and Nano Technology-Nano Materials at Sharif university of Technology, 2012
- Ranked 8th among more than 3200 participants in 3rd National nanotechnology competition – 2013
- Ranked 10th in nanomaterials section in the National Graduate University Entrance Exam, 2014
- Ranked 1st among PhD students in Nano Science and Nano Technology at Sharif university of Technology, 2014-2017

Research Interests

- *Nanomaterials & Nanostructured materials*
- *Biomaterials*
- *Tissue Engineering*
- *Biopolymers*
- *Biological Implants*
- *Nanocomposites*
- *Cell culture*

Research Experiences

- *Surface Treatment of Bone Tissue Implants (Anodizing, Dual Etching, Sol-Gel)*
- *Synthesis of Polymer Based Nanocomposite coatings*
- *Study on Surface Modification Techniques*
- *Synthesis of Nanostructured Hydroxyapatite for Surface Modification of Implants*
- *Study on Nanostructured Coatings for Biomedical Applications*
- *Synthesis of Graphene for Surface Modification of Implants*
- *Fabrication of Dental Implant by CNC*
- *Hydrometallurgy & Pyrometallurgy in Dechlorination*
- *Cell culture on implant surface*

Publications

Conference Papers:

- *S. Y. Rahnamaee, S. K. Sadrnezhad, M. A. Shokrgozar and M. Mehrjoo, "Synthesis and characterization of hydroxyapatite / chitosan nanocomposite coating for dental implant" 13th Congress of the Iranian nanotechnology alumnus (2013)*

Journal Papers:

- *Fabrication and characterization of Ti-6Al-4V dental implant coated with nanostructured hydroxyapatite and chitosan/hydroxyapatite nanocomposite, **Under Review***
- *miR-9 and miR-106a dysregulated in CD4+ T-cells of multiple sclerosis patients and targeted essential factors of Th17/Treg differentiation, **Under Review***

Instrumental Experiences

Materials Characterization Techniques:

- *X-Ray Diffraction (professional)*
- *Scanning Electron Microscopy (professional)*
- *Atomic Force Microscopy (professional)*
- *UV-Visible Spectroscopy (professional)*
- *Energy Dispersive Spectroscopy, EDS*
- *BET analysis*

Thin Films Processing Techniques:

- *DC. Sputtering (professional)*
- *Anodizing (professional)*
- *Thermal Evaporation (professional)*
- *Sol-Gel (professional)*

Teaching Experiences

- *Teacher in "Physics and mathematics", Isfahan schools*
- *Lecturer in Nanoscience and Nanotechnology, 2012 – 2016*

Presentations *

- **Electron microscopy (SEM & TEM)**
November 2011.
- **CNT/Hydroxyapatite nanocomposite for biomaterials**
Mechanical Properties of CNT/Hydroxyapatite Nanocomposite for Implant Coating and Effects of Different Parameters on These Properties, June 2012.
- **Principles of cell culture**
June 2013.
- **Anodizing technique for surface treatment**
Process and Important Parameters, May 2015.
- **Biomaterials for Bone Implant Coatings**
November 2016.

**All of These were presented at Sharif University of Technology*

Selected Passed Courses

- Nanotechnology (Grade 19.6/20, Top Mark)
- Chemistry of Nanomaterials (Grade 19/20, Top Mark)
- nanomaterials Simulation & Nano-computational methods (Grade 18.5/20)
- New methods for materials Characterization(Grade: 19.4/20)
- Quantum Physics (Grade 20/20, Top Mark)
- Advanced Properties of Materials (Grade: 19/20, Top Mark)
- NanoBiomaterials (Grade: 19/20, Top Mark)
- Advanced Polymers (Grade 20/20, Top Mark)
- Design of Experiment (DOE) (Grade 19/20, Top Mark)
- Nanocomposites (Grade 18.6/20, Top Mark)
- Advanced Surface Engineering(Grade: 17.3/20)

Computer Skills

- **Programming languages:** Fortran
- **Industrial engineering and mathematics software:** MATLAB, LAMMPS, Visual Molecular Dynamics, MiniTab
- **Microsoft Office:** Excel, Word, PowerPoint

Language Skills

- **Persian (native)**
- **English (good)**

Academic References

Prof. Reza Bagheri

*Professor of Materials Science and Engineering, Sharif University of Technology
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Prof. Sayed Khatiboleslam Sadrnezhaad

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Prof. Manouchehr Vosoughi

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