

Curriculum Vitae

CONTACT INFORMATION

Name: Ali Doostmohammadi

Address: **Head of Materials department**, Faculty of engineering, Shahrekord University (SKU), Shahrekord, Iran.

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EDUCATION

B.Sc.: Materials Engineering, Isfahan Uni. of Tech. (IUT), Isfahan, Iran (2004).

M.Sc.: Materials Engineering (Corrosion Eng.), Isfahan Uni. of Tech. (IUT), Iran (2006).

Ph.D.: Biomaterials, Isfahan Uni. of Tech. (IUT), Isfahan, Iran (2011).

Research period: Biomedical Eng. Department, **University of Basel, Switzerland (2009).**

PUBLICATIONS

M.H. Fathi, **A. Doostmohammadi**

“Preparation and characterization of sol–gel bioactive glass coating for improvement of biocompatibility of human body implant”

Materials Science and Engineering A, 2007.

M.H. Fathi, V. Mortazavi, **A. Doostmohammadi**

“Bioactive Glass Nanopowder for the Treatment of Oral Bone Defects”

Journal of Dentistry, Tehran University of Medical Sciences, 2008.

M.H. Fathi, **A. Doostmohammadi**

“Bioactive glass nanopowder and bioglass coating for biocompatibility improvement of metallic implant”

Journal of materials processing technology, 2009.

A. Doostmohammadi, A. Monshi, M.H. Fathi, U. Pieles, A.U. Daniels

“Preparation and Physico-Chemical Characterization of Bioactive Glass Nano Particles”

European Cells and Materials, 2010.

A. Doostmohammadi, A. Monshi, M.H. Fathi, O. Braissant

“A comparative physico-chemical study of bioactive glass and bone-derived hydroxyapatite”

Ceramics International, 2011.

A. Doostmohammadi, A. Monshi, M.H. Fathi, A.U. Daniels
“Bioactive glass nanoparticles with negative zeta potential”
Ceramics International, 2011.

A. Doostmohammadi, A. Monshi, M.H. Fathi
“Cytotoxicity evaluation Of 63S bioactive glass and bone-derived HA particles using human bone marrow stem cells”
Biomedical Papers, 2011.

A. Doostmohammadi, A. Monshi, M. H. Fathi, S. Karbasi, O. Braissant, A. U. Daniels
“Direct cytotoxicity evaluation of 63S bioactive glass and bone-derived hydroxyapatite particles using yeast model and human chondrocyte cells by microcalorimetry”
Journal of materials science : Materials in medicine, 2011.

P. Dinarvand, E. Seyedjafari, A. Shafiee, **A. Doostmohammadi**, M. Soleimani
“New Approach to Bone Tissue Engineering: Simultaneous Application of Hydroxyapatite and Bioactive Glass Coated on a Poly(L-lactic acid) Scaffold”
Applied materials and Interfaces, 2011.

A. Doostmohammadi, A. Monshi, M.H. Fathi, S. Karbasi, A.U. Daniels
“Preparation, chemistry and physical properties of bone-derived hydroxyapatite particles having a negative zeta potential”
Materials Chemistry and Physics, 2011.

A. Doostmohammadi, F. Mirlohi, A. Monshi
“Evaluation of adding fluorapatite nanoparticles on compressive strength of dental amalgams”
Journal of Nanomedicine and Nanotechnology, 2012.

S. Rahavi, A. Monshi, R. Emadi, **A. Doostmohammadi**, H. Akbarian
“Determination of Crystallite Size in Synthetic and Natural Hydroxyapatite: A Comparison between XRD and TEM Results”
Advanced Materials Research, 2012.

E. Seyedjafari, A. Shafiee, M. Soleimani, P Dinarvand, **A. Doostmohammadi**, S. Farhadian
“Poly (L-lactide) nanofibers coated with bioactive glass nanoparticles enhance osteogenic differentiation of adipose tissue-derived stem cells”
Journal of Tissue Engineering and Regenerative Medicine, 2012.

M. Tavakkoli, E. Bateni, M. Rismanchiyan, M.H. Fathi, **A. Doostmohammadi**, A. Rabei, H. Sadehi
“Genotoxicity effects of nano bioactive glass and Novabone bioglass on gingival fibroblasts using single cell gel electrophoresis (comet assay): An in vitro study”
Dental Research Journal, 2012.

F. Mirlohi, **A. Doostmohammadi**, A. Monshi
“Investigation of adding fluoroapatite nanoparticles on compressive strength and corrosion behaviour of dental amalgams”
Processing and Application of Ceramics, 2012.

M. Khaghani, **A. Doostmohammadi**, Z. Golniya, A. Monshi, A. R. Arefpour
“Preparation, Physicochemical Characterization, and Bioactivity Evaluation of Strontium-Containing Glass Ionomer Cement”
ISRN Ceramics, 2013.

Fatemeh Mirghaderi, Ahmad Monshi, Masoud Kasiri, **Ali Doostmohammadi**, Masoomeh Khaghani
“A Short Study on the Experimental Glass-Ionomer Cement Containing P₂O₅”
Phosphorus, Sulfur, and Silicon and the Related Elements, 2014.

F.S. Sayyedani, M.H. Fathi, H. Edris, **A. Doostmohammadi**, V. Mortazavi, A. Hanifi
“Effect of forsterite nanoparticles on mechanical properties of glass ionomer cements”
Ceramics International, 2014.

Fatemeh Jamshidi, Lida Langroudi, Abdolreza Ardehshirylajimi, Peyman Dinarvand, Masumeh Dodel,
Ali Doostmohammadi, Ali Rahimian, Parastoo Zohrabi, Ehsan Seyedjafari, Masoud Soleimani
“Coating of electrospun poly(lactic-co-glycolic acid) nanofibers with willemite bioceramic:
improvement of bone reconstruction in rat model”
Cell Biology International, 2014.

A. Ardehshirylajimi, S. Farhadian, L. Langroudi, **A. Doostmohammadi**, E. Seyedjafari, M. Soleimani
“Enhanced osteoconductivity of polyethersulphone nanofibres loaded with bioactive glass
nanoparticles in *in vitro* and *in vivo* models”
Cell Proliferation, 2015.

Farnaz Naghizadeh, Mohammed Rafiq Abdul Kadir, **Ali Doostmohammadi**, Fatemeh Roozbahani,
Nida Iqbal, Mohammad Mahdi Taheri
“Rice husk derived bioactive glass-ceramic as a functional bioceramic: Synthesis, characterization
and biological testing”
Journal of Non-Crystalline Solids, 2015.

CONFERENCES

(About 10 international and 40 national conferences)

- **First International Congress on Nanoscience and Nanotechnology, Tehran, Iran, 2006.**
- **2nd Conference on Nanostructures (NS2008), Tehran, Iran, 2008.**
- **3rd International NanoBio Conference, ETH-Zurich, Switzerland, 2010.**
- **International Community for Composite Engineering, Shanghai, China, 2011.**
- **10th International Conference on Fundamental and Applied Aspects of Physical Chemistry, Belgrade, Serbia, 2011.**
- **1st International Conference on Nanostructures and Nanomaterials, Masjed Soleyman, Iran, 2012.**
- **International Conference of Young Researchers on Advanced Materials (ICYRAM), Singapore, 2012.**
- **International Conference on X-Rays and Related Techniques in Research and Industry, Kuala Lumpur, Malaysia, 2012.**

TEACHING EXPERIENCE

Undergraduate Courses:

1. Physical Metallurgy
2. Advanced Materials
3. Biocorrosion

Graduate Courses:

1. Advanced Biomaterials
2. Tissue Engineering
3. Advanced Synthesis Methods

UNDERGOING RESEARCH PROJECTS

- Fabrication and Characterization of Bioactive Ceramic Nanofibers
- Nanostructured Bioceramic Coating Containing Zn, Ca and Si for Improvement of Bioactivity Behaviour of Ti Alloys
- A comparative physico-chemical and biological study of PLA/Bioactive glass and PLA/Hardystonite nanocomposite scaffolds
- Preparation and Comparative Study of Novel Akermanite ($\text{Ca}_2\text{MgSiO}_7$), Merwinite ($\text{Ca}_3\text{MgSi}_2\text{O}_8$) and Diopside ($\text{CaMgSi}_2\text{O}_6$) Nanobioceramics for Bone Repair Applications
- Optimization of Biodegradability, Bioactivity and Corrosion Behaviour of Magnesium Alloy Using of Carbon Nano Tube/Bioactive Glass Nanobiocomposite Coatings
- Fabrication and Characterization of Bioactive Nanocomposite Scaffold for Neural Tissue Engineering

WORK EXPERIENCE

- **Assistant Professor**, Materials Department, Engineering Faculty, Shahrekord University, Shahrekord, Iran, Since 2011.
- **Head of Materials Department**, Engineering Faculty, Shahrekord University, Shahrekord, Iran, Since 2012.
- **General Manager and R&D Manager**, NikCeram Razi Company, Since 2009.