

# Stanford

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## Razieh Khalifehzadeh

Postdoctoral Research Fellow, Chemical Engineering

### Bio

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#### BIO

Dr. Khalifehzadeh received a dual Ph.D. in Chemical Engineering and Nanotechnology & Molecular Engineering from the University of Washington (UW) in 2018. Her thesis research was focused on design of new classes of degradable polymers for the next generation of cardiovascular stents. Throughout her graduate study, she received multiple prestigious awards such as Pre-doctoral Clinical Research Training (TL1) scholarship from National Center for Advancing Translational Science at NIH, Society for Biomaterials (SFB) travel award, Dean of Engineering Scholarship and Graduate School Fund for Excellence and Innovation (GSFEI, UW). She is currently a T32 postdoctoral research fellow in the laboratories of Prof. Zhenan Bao and Prof. Sam Gambhir at Stanford University. Her interdisciplinary research lies at the interface of engineering and translational medicine and focuses on the development of wireless, implantable or wearable bioelectronics for early disease diagnosis and therapy.

#### HONORS AND AWARDS

- Cancer-Translational Nanotechnology Training (Cancer-TNT) Program, Stanford (2019- 2021)
- Honorable mention for an outstanding contribution to the Society For Biomaterials, Society For Biomaterials (2018)
- National Institute of Health (NIH) fellowship, BloodSurf workshop (2017)
- Graduate School Fund for Excellence and Innovation (GSFEI) Travel Award, University of Washington (2016&2018)
- NIH (TL1) fellowship, Institute of Translational Health Sciences (ITHS) (2016)
- World Biomaterial Congress (WBC) Travel Award, Society for Biomaterials (2016)
- Commentary about “Biomaterials” selected as Next Generation Voices, Science magazine (2014)
- Dean of Engineering scholarship, University of Texas at Arlington (2008-2010)

#### PROFESSIONAL EDUCATION

- Doctor of Philosophy, University of Washington (2018)

#### PATENTS

- BD Ratner, R Khalifehzadeh, E Naeemi, CU Lee, AJ Boydston. "United States Patent 15678581 Halogenated cyclic diesters, related polymers, and methods for their preparation and use", Nov 30, 2017

### Publications

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#### PUBLICATIONS

- **Trifluoromethyl-functionalized poly(lactic acid): a fluoropolyester designed for blood contact applications** *BIOMATERIALS SCIENCE*  
Khalifehzadeh, R., Ratner, B. D.  
2019; 7 (9): 3764–78

- **DNA-Templated Strontium-Doped Calcium Phosphate Nanoparticles for Gene Delivery in Bone Cells** *ACS BIOMATERIALS SCIENCE & ENGINEERING*  
Khalifehzadeh, R., Arami, H.  
2019; 5 (7): 3201–11
- **Surface fluorination of polylactide as a path to improve platelet associated hemocompatibility** *ACTA BIOMATERIALIA*  
Khalifehzadeh, R., Ciridon, W., Ratner, B. D.  
2018; 78: 23–35
- **Facile Synthesis of Fluorine-Substituted Polylactides and Their Amphiphilic Block Copolymers** *MACROMOLECULES*  
Lee, C., Khalifehzadeh, R., Ratner, B., Boydston, A. J.  
2018; 51 (4): 1280–89
- **Rapid formation of hydroxyapatite nanostrips via microwave irradiation** *JOURNAL OF ALLOYS AND COMPOUNDS*  
Arami, H., Mohajerani, M., Mazloumi, M., Khalifehzadeh, R., Lak, A., Sadrnezhad, S. K.  
2009; 469 (1-2): 391-394
- **Self-assembled nanostructured ZnO hollow spheres with UVA luminescence** *ADVANCES IN APPLIED CERAMICS*  
Arami, H., Mazloumi, M., Khalifehzadeh, R., Sadrnezhad, S. K.  
2009; 108 (2): 73-77
- **Effect of predeformation and heat treatment conditions in the SIMA process on microstructural and mechanical properties of A319 aluminum alloy** *JOURNAL OF ALLOYS AND COMPOUNDS*  
Arami, H., Khalifehzadeh, R., Keyvan, H., Khomamizadeh, F.  
2009; 468 (1-2): 130-135
- **Synthesis of  $\gamma$ -Alumina Nanopowders from Synthetic Bayer Liquor and its Application for Oil and Gas Industries** *JOURNAL OF NANOCOMPOSITE MATERIALS RESEARCH (JNMR)*  
Sadrnezhad, S., Mazloumi, M., Arami, H., Khalifehzadeh, R.  
2009; 1 (2): 71-76
- **Surfactant free hydrothermal formation of Pb3O4 nanorods** *JOURNAL OF ALLOYS AND COMPOUNDS*  
Arami, H., Mazloumi, M., Khalifehzadeh, R., Sadrnezhad, S. K.  
2008; 466 (1-2): 323-325
- **Bundles of self-assembled boehmite nanostrips from a surfactant free hydrothermal route** *JOURNAL OF ALLOYS AND COMPOUNDS*  
Arami, H., Mazloumi, M., Khalifehzadeh, R., Sadrnezhad, S. K.  
2008; 461 (1-2): 551-554
- **ELECTROCHEMICAL DEPOSITION OF FLOWER-LIKE NICKEL NANOSTRUCTURES ON WELL-DEFINED n-Si(111):H** *INTERNATIONAL JOURNAL OF ENGINEERING*  
Torabi, M., Khalifehzadeh, R., Arami, H., Sadrnezhad, S. K.  
2008; 21 (2): 177–82
- **Microporosity control and thermal-fatigue resistance of A319 aluminum foundry alloy** *MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES MICROSTRUCTURE AND PROCESSING*  
Arami, H., Khalifehzadeh, R., Akbari, M., Khomamizadeh, F.  
2008; 472 (1-2): 107-114
- **Self-assembled dahlia-like cadmium hydrogen phosphate hydrate nanostructures as templates for cadmium hydroxyapatite hexagonal prisms** *JOURNAL OF CRYSTAL GROWTH*  
Arami, H., Mazloumi, M., Khalifehzadeh, R., Lak, A., Sadrnezhad, S. K.  
2007; 309 (1): 37-42
- **Electron beam-induced "nanocalcination" of boehmite nanostrips to mesoporous alpha-alumina phase** *JOURNAL OF THE AMERICAN CERAMIC SOCIETY*  
Arami, H., Mazloumi, M., Khalifehzadeh, R., Khatiboleslam, S., Sadrnezhad, S. K.  
2007; 90 (10): 3311-3313
- **Prediction of the effect of vacuum sintering conditions on porosity and hardness of porous NiTi shape memory alloy using ANFIS** *COMPUTATIONAL MATERIALS SCIENCE*  
Khalifehzadeh, R., Forouzan, S., Arami, H., Sadrnezhad, S. K.

2007; 40 (3): 359-365

● **Polypyrrole/multiwall carbon nanotube nanocomposites electropolymerized on copper substrate** *MATERIALS LETTERS*

Arami, H., Mazloumi, M., Khalifehzadeh, R., Emami, S. H., Sadrnezhad, S. K.

2007; 61 (22): 4412-4415

● **Sonochemical preparation of TiO<sub>2</sub> nanoparticles** *MATERIALS LETTERS*

Arami, H., Mazloumi, M., Khalifehzadeh, R., Sadrnezhad, S. K.

2007; 61 (23-24): 4559-4561

● **Studies on synthesis of alumina nanopowder from synthetic Bayer liquor** *MATERIALS RESEARCH BULLETIN*

Mazloumi, M., Arami, H., Khalifehzadeh, R., Sadrnezhad, S. K.

2007; 42 (6): 1004-1009

● **Alumina nanopowder production from synthetic Bayer liquor** *JOURNAL OF THE AMERICAN CERAMIC SOCIETY*

Mazloumi, M., Khalifehzadeh, R., Sadrnezhad, S. K., Arami, H.

2006; 89 (12): 3654-3657

● **Powder metallurgical fabrication and characterization of nanostructured porous NiTi shape-memory alloy** *MATERIALS AND MANUFACTURING PROCESSES*

Sadrnezhaad, S. K., Arami, H., Keivan, H., Khalifehzadeh, R.

2006; 21 (8): 727-735