Curriculum Vitae

NAME & SURNAME: Zohreh Sadeghian

DATE OF BIRTH: 07/07/1972

ADDRESS, SUBURB, STATE, POSTAL CODE: Department of Materials Science and Engineering, Faculty of Engineering, Shahid Chamran University of Ahvaz, Ahvaz, Iran, Postal code: 6135783151.

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PROFESSIONAL PROFILE:

Associate Professor of Materials Engineering in Shahid Chamran University (SCU) of Ahvaz.

EDUCATION BACKGROUND:

Ph.D.: Materials Engineering, Isfahan University of Technology (IUT), Isfahan, Iran, (2003-2009)

Thesis Title:

"Development of Al-TiB2 Nanostructured Composite Using Mechanical Alloying, Spark Plasma Sintering and Hot Extrusion"

M.Sc.: Materials Selection and Characterization, Isfahan University of Technology (IUT), Isfahan, Iran, (1999-2001)

Dissertation Title:

"Synthesis of Ni-Al Intermetallics by Mechanical Alloying and the Effects of Parameters on the Process"

B.Sc.: Materials Engineering, Isfahan University of Technology (IUT), Isfahan, Iran, (1992-96)

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TEACHING AND TRAINING EXPERINCE:

Graduate courses taught: Nanostructure Materials, Advanced Materials

Undergraduate courses taught: Physical Metallurgy (1-2), Materials Science and Engineering (for the students of Mechanical Engineering), Materials Characterization Methods, Nonferrous Alloys, Metallography, Nanotechnology.

HONOURS AND AWARDS:

Scholarships from the German Academic Exchange Service (DAAD)

INTERESTS AND RESEARCH FIELDS:

- Nanostructured materials properties and processing
- Advanced materials and processing

RESEARCH ACTIVITIES:

PUBLICATIONS:

1. Role of powder preparation route on microstructure and mechanical properties of Al-TiB2 composites fabricated by accumulative roll bonding (ARB), Materials Science and Engineering: A 677 (2016) 400-410.
2. Effect of CNT addition approach on the microstructure and properties of NiAl-CNT nanocomposites produced by mechanical alloying and spark plasma sintering, Intermetallics 76 (2016) 41-48.
3. Investigating the microstructure and mechanical properties of Al-TiB2 composite fabricated by Friction Stir Processing (FSP), Materials Science and Engineering: A 673 (2016) 436-442.
4. Investigating the effect of tool dimension and rotational speed on microstructure of Al-B4C surface composite layer produced by friction stir processing (FSP), Journal of Advanced Materials and Processing 3 (2) (2015) 61-70.
5. Evaluation of the microstructure and wear behaviour of AA6063-B 4 C/TiB 2 mono and hybrid composite layers produced by friction stir processing Surface and Coatings Technology 285 (2016) 1-10.
6. In Situ Fabrication Of Al 2024-Mg2Si Composite by Spark Plasma Sintering of Reactive Mechanically Alloyed Powder, Iranian Journal of Materials Science and Engineering 13 (2) (2016) 10-19.
7. Effects of Mo Content On Amorphization of Ni Structure During Mechanical Alloying, Journal Of New Materials, 5 (2015) 69-76.
8. Application of spark plasma sintering (SPS) for the fabrication of in situ Ni-TiC nanocomposite clad layer, Journal of alloys and compounds, 633 (2015) 479–483.
9. Fabrication and characterization of reactive Ni-Ti-C powder by mechanical alloying, Journal of alloys and compounds, 589 (2014) 157-163.

10. Estimation and optimization of shear strength for compacted iron powders by means of soft computing paradigms, Materials and Design, 45 (2013) 590-596.
11. Microstructural and mechanical evaluation of Al–TiB2 nanostructured composite fabricated by mechanical alloying, J. of alloys and Comp., 509 (2011) 7758-7763.
12. Characterization of in situ Al-TiB2 nanocomposite powder synthesized by mechanical alloying, Powder Metallurgy, Vol. 54, No. 1, (2011) 46-49.
13. In situ production of Al-TiB2 nanocomposite by double step mechanical alloying, Journal of Materials Science, 44 (2009) 2566-2572.
14. Mechanical Alloying: Fundamentals and Applications (review article), Iranian Journal of Metallurgy Engineering, 23 (2006) 25-36.
15. High-velocity oxyfuel reactive spraying of mechanically alloyed Ni-Ti-C powders. Journal of Thermal Spray Technology, 14 (1) (2005) 77-84.
16. The Effect of Milling Parameters on the Synthesis of Ni3Al Intermetallic Compound by Mechanical Alloying, Materials Science and Engineering A, 375–377 (2004) 809-811.
17. Production of Ni3Al by Mechanical Alloying in Different Milling Conditions, Engineering Journal of Ferdousi University (Iran), Vol. 15, No.1, 2003.

CONFERENCE PRESENTATIONS:

1. Friction Stir Processing (FSP) as a cladding method to produce AA2024-AA1050 multi-layer sheets, Iran International Aluminum Conference (IIAC2016), Tehran, Iran, May 11-12, 2016.
2. Preparation and Tribological Properties of Electroless Ni-P-Graphene Nanocomposite Coating, The 4th International Conference on Composites: Characterization, Fabrication and Application (CCFA-4), Tehran, Iran, Dec. 16-17, 2014.
3. Evaluation of microstructure and mechanical behavior of A356- (nano/micro) Al2O3 composite fabricated by stir casting, 3rd Iranian International Aluminum conference, Tehran, Iran, May 25-26 2014.
4. Spark plasma sintering as a cladding method to produce in situ Ni-TiC nanocomposite clad layer, Euro PM 2013, Sweden, Sep. 2013.
5. Evaluation of Cu-CNT nanocomposite fabricated by powder metallurgy, Euro PM 2011, Barcelona, Italy, Oct. 2011.
6. Effect of TiB2 content on microstructure and mechanical properties of Al-TiB2 nanocomposite, 6IPM Conference, Ankara, Turkey, Oct. 2011.
7. Development of Al- TiB2 nanocomposite, TMS 2011, February 27-March 3 2011, San Diego, California.
8. Fabrication of bulk Al-TiB2 nanocomposite by spark plasma sintering of mechanically alloyed powder, 2010 TechConnect World Conference, Anaheim, California, USA.
9. Production of Al-TiB2 Nanostructured Composite Using Spark Plasma Sintering and Hot Extrusion, PM 2010, Florence, Italy.
10. A study on the production of A-TiB2 nanocomposite powder by mechanical alloying, Euro PM 2008, Mannheim, Germany.
11. Kinetics of Ordering Transformation in Disordered Ni3Al Synthesized by Mechanical Alloying, In proceeding of: 10th Iranian Metallurgy Engineers Congress, Mashad, Iran, 2006.
12. Oxidation Behavior of HVOF Boride Cermet Coating, In proceeding of: 7th National Surface Engineering Seminar, Isfahan, Iran, 2006.
13. Microstructural and sliding wear behaviour of Ni(Cr)-TiB2 coatings deposited by HVOF

spraying of SHS powders, In proceeding of: 14th IFHTSE Congress, China, 2004.

14. HVOF reactive spraying of mechanically alloyed Ni-Ti-C powders. In proceedings of: Thermal Spray 2003: Advancing the Science and Applying the Technology, USA.
15. Production of Ni(Cr)-TiC Nanocomposite Coating by HVOF Spraying of Mechanically alloyed Powder, In proceeding of: 5th National Surface Engineering Seminar, Tehran, Iran, 2003.
16. Microstructural Evaluation of HVOF thermal sprayed Ni(Cr)-TiB2 coating derived from SHS Powder, In proceeding of: 5th National Surface Engineering Seminar, Tehran, 2003.
17. Synthesis of Ni3Al Intermetallic Compound by Mechanical Alloying, In proceeding of: 5th Iranian Metallurgy Engineers Congress, Polytechnic University, Tehran, IRAN, 2001.

PROFESSIONAL MEMBERSHIPS:

Iran Surface Science and Engineering Society

Iranian Society of Metallurgical Engineers, (ISME)

LANGUAGES:

PERSIAN: Native

ENGLISH: Good

German: Fair