Curriculum Vitae

NAME & SURNAME: Behnam Lotfi

DATE OF BIRTH: 07/09/1972

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PROFESSIONAL PROFILE:

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

EDUCATION BACKGROUND:

Ph.D.: Materials Engineering

(1998-2002) Isfahan University of Technology (IUT), Isfahan, Iran

Thesis Title: Development of HVOF Sprayed Ni(Cr)-TiB2 Cermet Coatings Using SHS Powder Feedstock

M.Sc.: Materials Selection and Characterization

(1994-1997) Isfahan University of Technology (IUT), Isfahan, Iran

Dissertation Title: Oxidation Behaviour Aluminide and Chromium-Aluminide coatings on IN738LC

B.Sc.: Materials Engineering

(1990-94) Isfahan University of Technology (IUT), Isfahan, Iran

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TEACHING AND TRAINING EXPERINCE:

- Graduate courses taught: Diffusion in Solids, Solidification, Surface Engineering Processes, Tribology
- Undergraduate courses taught: Physical Metallurgy (1), Surface Engineering and Coatings, Materials Science and Engineering (for the students of Mechanical Engineering)

INTERESTS AND RESEARCH FIELDS:

Surface engineering, Tribology, Advanced materials

RESEARCH ACTIVITIES:

PUBLICATIONS:

1. Failure analysis of secondary reformer burner nozzles made from Incoloy 825 in an ammonia production plant, Engineering Failure Analysis, 118 (2020) 104860.
2. Effect of post processing heat treatment on microstructure evolution and mechanical properties of in situ Al/(Al3Ni-TiC) hybrid composite fabricated by friction stir processing using mechanically activated powders, Kovove Materialy-Metallic Materials, 58 (2020) 1-12.
3. Microstructural characterization and properties of in situ Al-Al3Ni/TiC hybrid composite fabricated by friction stir processing using reactive powder, Materials Characterization, 149 (2019) 124-132.
4. High temperature behavior of diffusion aluminide coating on alloy 600 superalloy, Materials at High Temperatures, 35(4) (2018) 343-354.
5. 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.
6. Evaluation of the microstructure and wear behaviour of AA6063-B4C/TiB2 mono and hybrid composite layers produced by friction stir processing, Surface and Coatings Technology, 285(2016) 1-10.
7. Accumulative roll bonding (ARB) of the composite coated strips to fabricate multi-component Al-based metal matrix composites, Materials science and Engineering A, 647(2015) 303-312.
8. 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(2015) 61-70.
9. 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.
10. The effect of surface pre-treatments on corrosion behavior of cerium-based conversion coatings on Al 7075-T6, Materials and Corrosion, 65(2014) 815-819.
11. Effect of silicon content on microstructure of Al−Si/ SiCp composite layer cladded on A380 Al alloy by TIG welding process, Transactions of Nonferrous alloys, 24, 2014, 2824-

2830.

12. Fabrication and characterization of reactive Ni–Ti–C powder by mechanical alloying, Journal of alloys and compounds, 589, 2014, 157-163.
13. Application of neural networking for fatigue limit prediction of powder metallurgy steel parts, Materials and Design (50) (2013) 440-445.
14. Estimation and optimization of shear strength for compacted iron powders by means of soft computing paradigms, Materials and Design (45) (2013) 590-596.
15. Microstructural and mechanical evaluation of Al–TiB2 nanostructured composite fabricated by mechanical alloying, Journal of Alloys and Compounds, 509(2011) 7758-7763.
16. Elevated Temperature Oxidation Behavior of a HVOF sprayed TiB2 Cermet Coating, Transactions of Nonferrous alloys, 20(2010) 243-247.
17. Abrasive wear behaviour of Ni(Cr)-TiB2 coatings deposited by HVOF spraying of SHS-derived cermet powders, Wear,254(2003), 340-349.

CONFERENCE PRESENTATIONS:

1. In situ synthesis of aluminium matrix surface composite by friction stir processing, Iran International Aluminium Conference (IIAC2016), 12-13 May 2016, Tehran, Iran.
2. Preparation and Tribological Properties of Electroless Ni-P-Graphene Nanocomposite Coating, The 4th International Conference on Composites: Characterization, Fabrication and Application (CCFA-4), 16-17 Des 2014, Tehran, Iran.
3. Evaluation of microstructure and mechanical behavior of A356- (nano/micro) Al2O3 composite fabricated by stir casting, Iran International Aluminium Conference(IIAC2014), 25-26 May 2014, Tehran, Iran.
4. Study on the effect of TiB2 content on microstructure and properties of Al- TiB2 nanocomposite, 6th International Powder Metallurgy Conference & Exhibition, 5-9 Nov2011, Turkey, Ankara.
5. Spark plasma sintering as a cladding method to produce in situ Ni-TiC nanocomposite clad layer, Euro PM 2013, 15-18 September 2013, Gothenburg, Sweden.
6. Application of Spark Plasma Sintering for cladding in situ Ni-TiC nanocomposite clad layer from mechanically alloyed reactive powder, 1st international Iranian Metallurgy Engineering and casting Society Conference, 6-8 Nov. 2012, Tehran, Iran.
7. A study on Sliding Wear Behaviour of Atmospheric Plasma Sprayed Conventional and Nanostructured Cr2O3 Coatings, 1st international Iranian Metallurgy Engineering and casting Society Conference, 6-8 Nov. 2012, Tehran, Iran.
8. Corrosion behavior of cerium oxide coated on Al- 7075 T6, 13th National Surface Engineering Seminar, 14-15 May, 2012, Tabriz, Iran.
9. Hardfacing of composite layer on aluminium by GTAW process, 13th National Surface Engineering Seminar, 14-15 May, 2012, Tabriz, Iran.
10. Prediction of the fatigue limit of PM steel parts by the application of a neural network, Euro PM 2011, 10-12 Oct. 2011, 241-246, Barcelona, Spain.
11. Study on the effect of TiB2 content on microstructure and properties of Al- TiB2 nanocomposite, 6th International Powder Metallurgy Conference & Exhibition, 5-9 Oct., 2011, Ankara, Turkey.
12. Cold sprayed Al-TiB2 nanocomposite coating by using mechanically alloyed powder, 12th National Surface Engineering Seminar, 9-11 May, 2011, Isfahan, Iran.
13. Reducing the formation of oxide scales during preheating of rolling slabs by using an

antioxidation coating, 12th National Surface Engineering Seminar, 9-11 May, 2011, Isfahan, Iran.

14. Fabrication of bulk Al-TiB2 nanocomposite by spark plasma sintering of mechanically alloyed powder, 5th National Matallurgy Engineering and Casting Common Conference, April 2011, Isfahan, Iran.

PROFESSIONAL MEMBERSHIPS:

- Iran Surface Science and Engineering Society
- Iranian Society of Metallurgical Engineers, (ISME)

LANGUAGES:

PERSIAN: Native
ENGLISH: Good
GERMAN: Fair