

Dr. Reza Bakhtyari

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Educational Background

June2011-Feb2012	Visiting Researcher at University of Calgary, Canada, Mechanical and Manufacturing Dept.
Sep2007-Jun2012 <i>(expected)</i>	Ph.D. in Materials Engineering (Characterization and Selection of Materials)/ Sharif University of Technology/ Tehran/ Iran [GPA: 17.84/20]
Sep2005-Sep2007	M.Sc. in Materials Engineering (Characterization and selection of Materials)/ Sharif University of Technology/ Tehran [GPA: 17.58/20]
Sep2001-Sep2005	B.Sc. in Materials Engineering (Industrial)/ Sharif University of Technology/ Tehran [GPA:16.53/20]

Research Interests

- Newly developed bonding methods for metals and composites
- Transient Liquid Phase (TLP) bonding for various similar and dissimilar systems
- Modeling and simulation of TLP Bonding
- Industrial applications of TLP bonding and other new methods
- Nano PVD/CVD coating
- Failure analysis, FFS and RBI of industrial parts
- Production of amorphous ribbons/strips by melt spinning and PFC methods
- Study on magnetic properties of amorphous and nanocrystalline alloys
- Microstructure-mechanical properties evolution for dual-phase and TRIP steels

Journal Publications

- 2018** **R. Bakhtiari**, Sh. Zangeneh, "Evaluation of hydrogen damage in a fire tube using microstructure/mechanical properties studies", *Engineering Failure Analysis*, 90, 231-244.
- ISI Index, IF (2016/2017)= 1.676**
- 2018** D. Amiri, S. A. Sajjadi, **R. Bakhtiari**, A. Kamyabi-Gol, The role of TLP process variables in improvement of microstructure and mechanical properties in TLP joints of GTD-111/Ni-Cr-Fe-B-Si/GTD-111, *Journal of Manufacturing Processes*, 32, 644–655.
- ISI Index, IF (2016/2017)= 2.322**
- 2017** **R. Bakhtiari**, S. Zangeneh, M. Bakhtiari Fotouh, S.M. Jamshidi, A. Shafeie, "Fitness for service assessment of a pressure vessel subjected to fire damage in a refinery unit", *Engineering Failure Analysis*, 80, 444–452.
- ISI Index, IF (2016/2017)= 1.676**
- 2016** A. Yarmou Shamsabadi, **R. Bakhtiari**, G. Eisaabadi B, TLP bonding of IN738/MBF20/IN718 system, *Journal of Alloys and Compounds*, 685, 896-904.
- ISI Index, IF (2016/2017)= 3.014**
- 2016** **Bakhtiari, R.**, Effect of configuration and composition of interlayer on TLP joints of FSX-414 superalloy Original, *Journal of Materials Processing Technology*, 231, 8–17.
- ISI Index, IF (2015/2014)= 2.236**
- 2016** Abbasi Khazaei, B, Jahanbakhsh, A, **Bakhtiari, R.**, TLP bonding of dissimilar FSX-414/IN-738 system with MBF-80 interlayer: The effect of homogenizing treatment on microstructure and mechanical properties, *Materials Science & Engineering A*, 651, 93–101.
- ISI Index, IF (2015/2014)= 2.567**
- 2016** Abbasi Khazaei, B, Asghari, G, **Bakhtiari, R.**, TLP bonding of dissimilar FSX-414/IN738 system with MBF80 interlayer, *Welding Journal*, 95, 65s-75s.
- ISI Index, IF (2015/2014)= 0.925**
- 2015** **R. Bakhtiari**, A. Ekrami, T.I. Khan, Microstructure-Mechanical Properties Relation of TLP-Bonded FSX-414 Superalloy: Effect of Homogenization Design, *Journal of Materials Engineering and Performance* , 24:1687–1696.
- ISI Index, IF (2015/2014)= 0.998**
- 2014** Abbasi Khazaei, B, Asghari, G, **Bakhtiari, R.**, TLP bonding of dissimilar FSX-414/IN738 system with MBF80 interlayer: Prediction of solid/liquid interface location, *Transactions of Nonferrous Metals*, 24: 996–1003.
- ISI Index, IF (2015/2014)= 1.178**
- 2012** **R. Bakhtiari**, A. Ekrami, Transient liquid phase bonding of FSX-414 superalloy at the standard heat treatment condition. *Materials Characterization*, 66, 38-45.
- ISI Index, IF (2012)= 1.88**

- 2012** **R. Bakhtiari**, A. Ekrami, T.I. Khan, The effect of TLP bonding temperature on microstructural and mechanical property of joints made using FSX-414 superalloy, *Materials Science and Engineering A*, 546, 291– 300.
ISI Index, IF (2012)= 2.108
- 2012** **R. Bakhtiari**, A. Ekrami, The effect of gap size on the microstructure and mechanical properties of the transient liquid phase bonded FSX-414 superalloy, *Materials and Design*, 40, 130–137.
ISI Index, IF (2012)= 2.913
- 2009** **R. Bakhtiari**, A. Ekrami, “Effect of bainite morphology on the mechanical properties of a high bainite dual phase (HBDP) steel”, *Materials Science and Engineering A*, 525, 159-165.
ISI Index, IF (2009)= 1.901
- 2011** **R. Bakhtiari**, A. Ekrami, “Microstructural changes of FSX-414 superalloy during TLP bonding”, *Defect and Diffusion Forum*. 312-315, 399-404.
Non-ISI, IF (2005)= 0.483
- 2010** **R. Bakhtiari**, A. Ekrami, “Microstructural study of a high bainite dual phase (HBDP) steel austempered at different temperatures”, *Defect and Diffusion Forum*, 297-301, 62-67.
Non-ISI, IF (2005)= 0.483

Industrial/research Projects

- 2017-continued** “Study to design an optimum manufacturing process for bearings of gas-fuel generators”, **Project manager**
385,000,000R
Kermanshah Oil Refinery Company (KORC)
- 2017-continued** “Consulting and supervision of manufacturing process of babbitt alloy for turbine compressor seals”,
Project manager
90,600,000R
Kermanshah Oil Refinery Company (KORC)
- 2017-continued** “Processing and mechanical feasibility study of Ethan Sweetening Unit”, **Main cooperator**
150,000,000 R
Ilam Gas Treating Company (IGTC)
- 2016-2017** “Material selection for a babbitt alloy used in turbine compressor seals”, **Project manager**
259,000,000R
Kermanshah Oil Refinery Company (KORC)
- 2016-2017** “Failure analysis and solving the operational problems of H-500 reboiler in Naftshahr unit”, **Project manager**
623,000,000R
West Oil and Gas Processing Company (WOGPC)
- 2016-2017** “Corrosion analysis of deaerator to eliminate/reduce the corrosion agents”, **Project manager**
348,000,000 R
Bisotun Thermal Power Plant Company

2015-2016	“Fitness for service (FFS) assessment for V-201 reactor to investigate the repair process”, Project manager 116,000,000 R Kermanshah Oil Refinery Company (KORC)
2014-2015	“Design and manufacturing of a shaft and flange set for OS-4202 granule unit”, Project manager 120,000,000 R Kermanshah Petrochemical Industries Company (KPIC)
2009-2010	“Technical knowledge of TLP bonding of nickel based and cobalt based superalloys used in thermal power stations”, Main cooperator 587,000,000 R Mapna Group, Parto Co.
2009-2011	“Technical knowledge of TLP bonding of IN718 nickel based superalloy used in gas turbine blades”, Main cooperator 444,000,000 R Ministry of Industries and Mines

Member of:

- Member of "Materials Research Society, MRS", USA
- Member of "IRONIX, ICC conferences and courses", Portugal

Teaching Experiences

2006-now “Advanced joining processes”

Razi University “Advanced surface engineering”

Azad University “Errors in materials engineering”

“Composites” and “Nanocomposites”

“Mechanical properties of materials” I and II

”Metals forming”

“Crystallography”

Awards and Honors

2016	The best young researcher of Razi University
2014-now	Manager of a knowledge-based company: Takin Lian Pars (TLP)
2010	Acceptance of an Iranian Patent: “PFC nozzles for producing thin metallic strips directly from melt”
2006	3 rd laureate in applied research, 21 st Khwarizmi International Award, cooperation in “Technology of amorphous magnetic Co-based alloys by rapid solidification method”.

Language

<i>Farsi</i>	Native
<i>English</i>	Fluent