

دکتر بیت اله اقبالی

استاد

دانشکده: مهندسی مواد

گروه: متالورژی



Beitallah Eghbali,

Professor of Materials Science and Engineering

#### Personal:

Name: Beitallah

Last name: Eghbali

Gender: Male

Marital status: Married (2 children)

Date of birth: 1968

Place of birth: Takab, West Azarbaijan, Iran

Nationality: Iranian

#### Professional Experience:

- Researcher, Materials Group, Science and Technology Research Center, Tehran, Iran, 1993-1995.
- Academic staff of Sahand University of Technology (SUT), Tabriz, Iran, 1996-Now.
- Consultant of Iran Tractor Forging Company, (ITFC), Tabriz, Iran, 1997-1999.
- Consultant of Tehran Heat Treatment and Hot Forging Company, Tehran, Iran, 2000-2004.
- Researcher, Science and Technology Research Center, Tehran, Iran, 2002-2004.

- Member of reviewer board of the Journal of Alloys and Compounds, since 2007.

### Education:

- B.Sc. in Materials Science and Engineering (Casting), Isfahan University of Technology, Isfahan, Iran (1993). Dissertation: Color Anodizing of Aluminum Alloys.
- M.Sc. in Materials Science and Engineering (Processing and Characterization of Metallic Materials), Tarbiat Modarres University, Tehran, Iran (1996). Dissertation: Investigation on the Influence of Hot Rolling Parameters on the Microstructure and Mechanical Properties of an Ultra-High Strength Steel.
- Visiting Ph.D. Student, School of Engineering, Deakin University, Australia (2004-2005). Research Field: Thermomechanical Controlled Processing of Microalloyed Steels by Using Torsion Testing.
- Ph.D. in Materials Science and Engineering (Hot Deformation of Metallic Materials), Tarbiat Modarres University, Tehran, Iran (2006). Dissertation: Grain Refinement in Microalloyed Steels through Thermomechanical Processing.

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### Professional Membership:

- Member of Iranian Metallurgical Engineering 's Society, Iran.
- Member of Iron and Steel Society of Iran.

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### Areas of Interests:

- Thermomechanical Processing of Steels & Other Metals
- Hot/ Warm Deformation of Metals
- Metal Matrix Composites
- Severe Plastic Deformation (SPD)
- Processing of Metal Matrix Composite
- Production of Bulk Ultrafine/ Nano-Grained Metallic Materials
- Processing of High Performance Alloys.

### Language:

- English, Farsi, Turkish
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### Teaching Experience:

- Metal Forming (B.Sc Students)
- Heat Treatment of Steels (B.Sc Students)
- Phase Transformation (B.Sc Students)
- Physical Chemistry of Materials (B.Sc Students)
- Strength of Materials (B.Sc Students)
- Principles of Metallography (B.Sc Students)
- Materials Science (B.Sc Students)
- Style in Scientific and Technical Presentation (B.Sc Students)
- Hot Deformation of Metals and Alloys (M.Sc Students)
- Ingot Casting (M.Sc Students)
- Mechanical Aspects of Corrosion (M.Sc Students)
- Bulk Nano-structure Metallic Materials (M.Sc Students)
- Research Styles in Materials Science and Engineering (Ph.D Students)
- High Temperature Alloys (Ph.D Students)
- Advanced Metal Forming (Ph.D Students)

### Awards and Distinctions:

- Selected Researcher, East Azerbaijan Province, Tabriz, IRAN, 2006.
  - First Winner of Superior Ph. D. Thesis Selection Award by Tarbiat Modarres University, IRAN, 2006.
  - Selected Researcher, Sahand University of Technology, Tabriz, IRAN, 2007.
  - Selected Researcher, East Azerbaijan Province, Tabriz, IRAN, 2012.
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### References:

Professor M. Jahazi, National Research Council Canada, Institute for Aerospace Research, Aerospace Manufacturing Center, 5145 Decelles, Montreal, Que., Canada.

Professor P. D. Hodgson, Faculty of Science and Technology, Deakin University, Geelong, Victoria 3217, Australia.

Associate Professor A. Abdollah-Zadeh, Department of Materials Engineering, Tarbiat Modarres University, Tehran, Iran.

Dr H. Beladi, Faculty of Science and Technology, Deakin University, Geelong, Victoria 3217, Australia.

## Publications (ISI):

1. M. Jahazi, B. Eghbali, "The influence of hot rolling parameters on the microstructure and mechanical properties of an ultra-high strength steel", *J. Materials Processing Technology*, Vol. 103, No. 2 (2000) pp. 276-279.
2. M. Jahazi, B. Eghbali, "The influence of hot forging conditions on the microstructure and mechanical properties of two microalloyed steels", *J. Materials Processing Technology*, Vol. 113, No. 1-3 (2001) pp. 594-598.
3. B. Eghbali, A. Abdollah-zadeh, "The influence of thermomechanical parameters in ferrite grain refinement in a low carbon Nb-microalloyed steel", *Scripta Materialia*, Vol. 53, No. 1 (2005) pp. 41-45.
4. B. Eghbali, A. Abdollah-zadeh, "Effect of Strain Rate on the Ferrite Grain Refinement of a Low Carbon Nb-Ti Microalloyed Steel During Low Temperature Deformation", *J. Materials Science and Technology*, Vol. 21, No. 6 (2005) pp. 851-855.
5. B. Eghbali, A. Abdollah-zadeh, "Strain Induced Transformation in a Low Carbon Microalloyed Steel during Hot Compression Testing", *Scripta Materialia*, Vol. 54, No. 6 (2006) pp. 1205-1209.
6. B. Eghbali, A. Abdollah-zadeh, H. Beladi and P. D. Hodgson, "Characterization on Ferrite Microstructure Evolution During Large Strain Warm Torsion Testing of Plain Low Carbon Steel", *Materials Science and Engineering A*, Vol. 435-436 (2006) pp. 499-503.
7. B. Eghbali, A. Abdollah-zadeh, "Influence of Deformation Temperature on the Ferrite Grain Refinement of a Low Carbon Nb-Ti Microalloyed Steel", *J. Materials Processing Technology*, Vol. 180 (2006) pp. 44-48.
8. B. Eghbali, A. Abdollah-zadeh, "Deformation Induced Ferrite Transformation in a Low Carbon Nb-Ti Microalloyed Steel", *Materials and Design*, Vol. 28, No. 3 (2007) pp. 1021-1026.
9. A. Abdollah-zadeh, B. Eghbali, "Mechanism of Ferrite Grain Refinement during Warm Deformation of a Low Carbon Nb-microalloyed Steel", *Materials Science and Engineering A*, Vol. 457 (2007) pp. 219-225.
10. B. Eghbali, A. Abdollah-zadeh and P.D. Hodgson, "Dynamic Softening of Ferrite during Large Strain Warm Deformation of a Plain-Carbon Steel", *Materials Science and Engineering A*, Vol. 462 (2007) pp. 259-263.
11. B. Eghbali, "EBSD Study on the Formation of Fine Ferrite Grains in Plain Carbon Steel during Warm Deformation", *Materials Letters*, Vol. 61 (2007) pp. 4006-4010.
12. B. Eghbali, "Effect of Warm Deformation on Ferrite Microstructure Evolution in a Ti-Microalloyed Steel", *Materials Science Forum*, Vols. 558-559 (2007) pp. 497-504.
13. B. Eghbali, "Effect of Warm Deformation on Ferrite Microstructure Evolution in a Ti-Microalloyed Steel", *Materials Science Forum*, Vols. 558-559 (2007) pp. 497-504.
14. B. Eghbali, "Large Deformation of Plain Carbon Steel through Thermomechanical

Processing", Journal of Iron and Steel Society, No. 28, (2007) pp. 1-7.

15. B. Eghbali, "Microstructural Development in a Low Carbon Ti-Microalloyed Steel during Deformation within the Ferritic Region", Materials Science and Engineering A, Vol. 480 (2008) pp 84-88.

16. B. Eghbali, "Microstructural Characterization of a Warm Deformed Microalloyed Steel", Materials Characterization, Vol. 59, Issue 4 (2008) pp. 473-478.

17. **B. Eghbali**, "Severe Deformation of a Carbon Steel within the Ferritic Region", Materials Science Forum, Vols. 584-586 (2008) pp 667-672.

18. B. Eghbali, "Study on the Effect of Strain Rate on the Dynamic Strain-Induced Transformation in a Microalloyed Steel", Journal of Faculty of Engineering, Tabriz Uni., Vol.36, No. 2 (2008) pp 1-10.

19. B. Eghbali, "A Study on the Effect of Chemical Composition on the Warm Deformation Behavior and Microstructural Evolution in Microalloyed Steels", International Journal of Engineering Sciences, Vol.19 (2008) pp 39-46.

20. B. Eghbali, "Effect of Strain on the Development of Strain-Induced Transformation of Austenite to Ferrite in a Microalloyed Steel", Journal of School of Engineering, Ferdowsi Uni., Vol.20, No. 2 (2009) pp 1-10.

21. B. Eghbali, "Effect of Strain Rate on the Grain Refinement Process in a Microalloyed Steel during Hot Torsion Testing within the ferrite region ", Journal of Science and Technology, Sharif, Vol.47 (2009) pp 25-32.

22. B. Eghbali, "Study on the Ferrite Grain Refinement during Intercritical Deformation of a Microalloyed Steel", Materials Science and Engineering A, Vol. 527 (2010) pp 3407-3410.

23. B. Eghbali, " Effect of Strain Rate on the Microstructural Development through Continuous Dynamic Recrystallization in a Microalloyed Steel", Materials Science and Engineering A, Vol. 527 (2010) pp 3402-3406.

24. M. Shaban Ghazani, **B. Eghbali**, "Determination of Critical Conditions for Dynamic Recrystallization of a Microalloyed Steel", Materials Science and Engineering A, Vol. 527 (2010) pp 4320-4325.

25. M. Shaban Ghazani, **B. Eghbali**, "Dynamic Strain Induced Transformation of Austenite to Ferrite during High Temperature Extrusion of Low Carbon Steel", Materials Transactions, Vol.52 No.1 (2011) pp 8-11.

26. M. Shaban Ghazani, B. Eghbali, "Characterization of Austenite Dynamic Recrystallization under Different Z Conditions in a Microalloyed Steel", Journal of Materials Sciences & Technology, J Materials Science and Technology, Vol. 27 No. 4 (2011) pp. 359-363.

27. M. Shaban Ghazani, **B. Eghbali**, "Production of Bulk Ultrafine Grained Steel through Severe Plastic Deformation", *Materials Science Forum Vols. 667-669* (2011) pp 583-588.
28. S. G. Hashemia, **B. Eghbali**, "Processing of Ultrafine Grained Cu-30%Zn alloy through Severe Plastic Deformation using Accumulative Roll Bonding", *Materials Science Forum Vols. 667-669* (2011) pp 571-576.
29. B. Eghbali, M. Shaban Ghazani, "Warm Deformation Microstructure of a Plain Carbon Steel", *Journal of Iron and Steel Research, International*, Vol.18 No. 7 (2011).
30. M. Shaban Ghazani, **B. Eghbali**, "Pressure Induced Martensite Transformation in a Plain Carbon Steel", *Materials Science and Technology*, Accepted for publication, 2011.
31. M. Shaban Ghazani, **B. Eghbali**, "Effect of Integrated Extrusion-Equal Channel Angular Pressing Temperature on Microstructural Characteristics of Low Carbon Steel", *Materials Science and Technology*, Accepted for publication, 2010.
32. M. Shaban Ghazani, **B. Eghbali**, "Processing of Ultrafine Grained Steel through Forward Extrusion-Equal Channel Angular Pressing", *Journal of Iron and Steel Research, International*, Submitted for publication, 2011.
33. V Soleymani, **B. Eghbali**, "Grain Refinement in a Low Carbon Steel Through Multidirectional Forging", *Journal of Iron and Steel Research, International*, Vol. 9(10) (2012) pp 74-78.
34. M. Tayyebi, **B. Eghbali**, "Processing of Al/304 stainless steel composite by roll bonding", *Materials Science and Technology*, VOL 28 NO 12 (2012) pp 1414-1419.
35. B. Eghbali, M. Shaban, "Effect of Hot Torsion Parameters on Development of Ultrafine Ferrite Grains in Microalloyed Steel", *Journal of Iron and Steel Research, International*, Vol. 19(1) (2012) pp 47-52.
36. M. Tayyebi, **B. Eghbali**, "Study on the microstructure and mechanical properties of multilayer Cu/Ni composite processed by accumulative roll bonding", *Materials Science & Engineering A*, 559 (2013) pp 759–764.
37. M. Shaban Ghazani, **B. Eghbali**, "Finite Element Study on the Development of Damage and Flow Characteristics in Al7075 Alloy during Ex-ECAP", *Computational Materials Science*, 74 (2013) pp 124–128.
38. M. Shaban Ghazani, **B. Eghbali**, "Development of Damage and Flow Characteristics in Al7075 Alloy during Ex-ECAP", *Modeling and Numerical Simulation of Material Science*, 3 (2013) pp 27-32
39. H. Ghadimi, S. Hossein Nedjhad, B. Eghbali, "Enhanced grain refinement of cast aluminum alloy by thermal and mechanical treatment of Al-5Ti-B master alloy",

Trans. Nonferrous Met. Soc. China, 23(2013) pp 1563–1569.

40. K. Hajizadeh, S. Ghobadi Alamdari, B. Eghbali, “Stored energy and recrystallization kinetics of ultrafine grained titanium processed by severe plastic deformation”, *Physica B*, Vol. 33–38 (2013) pp 33-38.

41. K. Hajizadeh, B. Eghbali, “Effect of Two-Step Severe Plastic Deformation on the Microstructure and Mechanical Properties of Commercial Purity Titanium”, *Met. Mater. Int.*, Vol. 20, No. 2 (2014) pp 343-350.