



Morteza Abedini

Assistant Professor

College: Faculty of Engineering

Department: Metallurgical Engineering

Education

| Degree | Graduated in | Major | University |
|--------|--------------|--------------------------------------|---|
| BSc | 2006 | Metallurgy and Materials Engineering | Amirkabir University of Technology (Tehran Polytechnic) |
| MSc | 2009 | Metallurgy and Materials Engineering | University of Tehran |
| Ph.D | 2015 | Metallurgy and Materials Engineering | University of Tehran |

Papers in Conferences

1. Abedini, M., Hanke, S., Reuter, F. Time dependent analysis of cavitation damage and the effect of cathodic protection. 23rd International Conference on Wear of Materials. 2021.
2. Lotfi, A., Abedini, M., Sadeghzadeh, A. Corrosion behavior of copper-nickel alloy coating on the surface of copper produced by electrodeposition. 8th International Conference on Materials Engineering and Metallurgy. 2019.
3. Jahangiri, M.R., Abedini, M. Oxidation and hot corrosion of service-exposed and rejuvenated IN939 alloy. 3rd International Engineering Metallurgy and Materials Engineering Conference. 2014.
4. Abedini, M., Ghasemi, H.M., Nili Ahmadabadi, M. Study of shape memory effect on the wear surface of a NiTi shape memory alloy. 2nd joint conference of Iranian Metallurgical Engineers Society and Iranian Foundry. 2009.
5. Abedini, M., Ghasemi, H.M., Nili Ahmadabadi, M. Effect of normal load on tribological behavior of Nitinol. 2nd joint conference of Iranian Metallurgical Engineers Society and Iranian Foundry. 2008.
6. Shahali, H., Ghasemi, H.M., Abedini, M. Erosion and erosion-corrosion behaviors of Sanicro28 stainless steel in 3.5% NaCl environment. 6th International Conference on Materials Engineering and Metallurgy, 2017.
7. hasemi, H.M., Karimi, M., Pasha, A., Abedini, M. Erosion-corrosion behavior of 316-SS in seawater simulated environment at various impingement angles. Regional Tribology Conference, 2011.
8. Abedini, M., Ghasemi, H.M., Nili Ahmadabadi, M. Effect of temperature on the wear behavior of NiTi alloy against 52100 steel and WC. International Conference on Emerging Research and Advances in Mechanical Engineering, 2009.

9. Pourkia, N., Abedini, M., Recent Developments of Oil and Gas Transmission Pipeline Steels; Microstructure, Mechanical Properties and Sour Gas Resistance, International Pipeline Conference & Exposition, 2008.

Papers in Journals

1. Abedini, M., Reuter, F., Hanke, S., Corrosion and material alterations of a CuZn38Pb3 brass under acoustic cavitation, *Ultrasonics Sonochemistry*, 2019.
2. Shahali, H., Ghasemi, H.M., Abedini, M., Contributions of corrosion and erosion in the erosion-corrosion of Sanicro 28, *Materials Chemistry and Physics*, 2019.
3. Abedini, M., Jahangiri, M.R., Karimi, P., Rejuvenation of the microstructure and mechanical properties of a service-exposed IN939 superalloy by heat treatments, *Materials at High Temperatures*, 2019.
4. Abedini, M., Ghasemi, H.M., Electrochemical Noise and Polarization Analyses on Corrosion of Al-Brass Alloy During Erosion-Corrosion, *Journal of Bio- and Tribo-Corrosion*, 2020.
5. Yazdi, R., Ghasemi, H.M., Abedini, M., Monshi, M., Interplay between mechanical wear and electrochemical corrosion during tribocorrosion of oxygen diffusion layer on Ti-6Al-4V in PBS solution, *Applied Surface Science*, 2020.
6. N. Khayatan, H.M. Ghasemi, M. Abedini, Study of erosion-corrosion and corrosion behavior of CP-Ti during slurry erosion, *Journal of Tribology*, 2018.
7. R. Yazdi, H.M. Ghasemi, M. Abedini, C. Wang, A. Neville, Mechanism of tribofilm formation on Ti6Al4V oxygen diffusion layer in a simulated body fluid, *Journal of the Mechanical Behavior of Biomedical Materials*, 2018.
8. Abedini, M., Hanke, S., Reuter, M., In situ measurement of cavitation damage from single bubble collapse using high-speed chronoamperometry, *Ultrasonics Sonochemistry*, 2023.
9. Cheraghali, B., Ghasemi, H.M., Abedini, M., Yazdi, R., Functionally graded oxygen-containing coating on CP-titanium for bio-applications: characterization, biocompatibility and tribocorrosion behavior, *Journal of Materials Research and Technology*, 2022.
10. Abedini, M., Ghasemi, H.M., Electrochemical noise and polarization analyses on corrosion of Al-Brass alloy during erosion-corrosion, *Journal of Bio- and Tribo-Corrosion*, 2021.
11. Cheraghali, B., Ghasemi, H.M., Abedini, M., Yazdi, R., A functionalized duplex coating on CP-titanium for biomedical applications, *Surface and Coatings Technology*, 2020.
12. Yazdi, R., Ghasemi, H.M., Abedini, M., Wang, C., Neville, A., Tribocorrosion behaviour of Ti6Al4V under various normal loads in phosphate buffered saline solution, *Transactions of Nonferrous Metals Society of China*, 2020.
13. M. Abedini, M.R. Jahangiri, P. Karimi, Oxidation and hot corrosion behaviors of service-exposed and heat-treated gas turbine vanes made of IN939 alloy, *Oxidation of Metals*, Vol. 90, pp. 469-484, 2018.
14. M. Abedini, H.M. Ghasemi, Erosion and erosion-corrosion of Al-brass alloy: effects of jet velocity, sand concentration and impingement angle on surface roughness, *Transactions of Nonferrous Metals Society of China*, 2017.
15. S. Fouladi, A.H. Ghasemi, M. Abbasi, M. Abedini, A.M. Khorasani, I. Gibson, The effect of vibration during friction stir welding on corrosion behavior, mechanical properties, *Metals*, 2017.
16. N. Khayatan, H.M. Ghasemi, M. Abedini, Synergistic erosion-corrosion behavior of commercially pure titanium at various impingement angles, *Wear*, 2017.
17. J. Nasehi, H.M. Ghasemi, M. Abedini, Effects of aging treatments on the high temperature wear behavior of 60Nitinol alloy, *Tribology Transactions*, 2016.
18. M. Abedini, H.M. Ghasemi, Corrosion behavior of Al-brass alloy during erosion-corrosion process: effects of jet velocity and sand concentration, *Materials and Corrosion*, 2016.
19. M. Ranjbar, H.M. Ghasemi, M. Abedini, Effect of impact angle on the erosion-corrosion behavior of AISI420 stainless steel in 3.5 wt.% NaCl solution, *Journal of Tribology*, 2015.
20. M.R. Jahangiri, M. Abedini, Effect of long time service exposure on microstructure and mechanical

properties of gas turbine vanes made of IN939 alloy, *Materials & Design*, 2014.

21. M. Abedini, H.M. Ghasemi, Synergistic erosion–corrosion behavior of Al–brass alloy at various impingement angles, *Wear*, 2014.
22. M. Abedini, H.M. Ghasemi, M. Nili Ahmadabadi, Effect of normal load and sliding distance on the wear behavior of NiTi alloy, *Tribology Transactions*, 2012.
23. H.M. Ghasemi, M. Karimi, A. Pasha, M. Abedini, Erosion-corrosion behavior of 316-SS in seawater simulated environment at various impingement angles, *International Journal of Mechanical and Materials Engineering*, 2011.
24. R. Aliasgarian, H.M. Ghasemi, M. Abedini, Tribological behavior of heat treated Ni-rich NiTi alloy, *Journal of Tribology*, 2011.
25. M. Abedini, H.M. Ghasemi, M. Nili Ahmadabadi, Self-Healing effect on the worn surface of NiTi shape memory alloy, *Materials Science and Technology*, 2010.
26. M. Abedini, H.M. Ghasemi, M. Nili Ahmadabadi, High temperature tribological behavior of NiTi alloy against 52100 steel and WC, *Materials Characterization*, 2010.
27. M. Abedini, H.M. Ghasemi, M. Nili Ahmadabadi, R. Mahmudi, Effect of phase transformation on the mechanical and wear behavior of NiTi alloy, *Journal of Engineering Materials and Technology*, 2010.
28. M. Abedini, H.M. Ghasemi, M. Nili Ahmadabadi, Tribological behavior of NiTi alloy in martensitic and austenitic states, *Materials & Design*, 2009.
29. Saeed Asadi Kouhanjani, Arman Zare, & bidaki, Morteza Abedini, Nader Parvin, Influence of prior cold working on the tribological behavior of Cu-0.65 wt.%Cr alloy, *Journal of Alloys and Compounds*, 2009.