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ACADEMIC EXPERIENCE

Istanbul Technical University

Metallurgical and Materials Engineering Department

Lecturer

2018 -

Istanbul Technical University

Metallurgical and Materials Engineering Department

Research Specialist

2017 - 2018

Istanbul Technical University

Metallurgical and Materials Engineering Department

Research Assistant

2012 - 2017

EDUCATION

Ph.D Degree:

Istanbul Technical University

Institute of Science and Technology, Materials Science and Engineering

2010 -

M.Sc Degree:

Istanbul Technical University

Institute of Science and Technology, Materials Science and Engineering

2008 – 2010

Technical University of Eindhoven, The Netherlands

Materials and Surface Chemistry Research Group

July 2009 – February 2010

Bachelor's Degree:

Istanbul Technical University

Chemistry-Metallurgy Faculty, Metallurgical and Materials Engineering

2004 – 2008

High School:

FMV Ayazağa Işık High School

Science Class

2001 – 2004

RESEARCH TOPICS

- Mechanical behaviours and tribological properties of materials
- Micro arc oxidation coatings on valve metals
- Surface properties of light metals such as Al, Mg, Ti
- Heat treatment of metals
- Thermal oxidation
- Metal matrix composites
- Biomaterials
- Bioactive compounds containing coatings
- Wear- and corrosion-resistant ceramic coatings

PROJECTS

HORIZON 2020 – Research and Innovation Framework Programme

1. “Integrated Training Network in Advanced Nano and Micro Gradient-Structured Materials and Coatings Designed for Orthopedic, Trauma and Dental Implants”, Action MSCA-ITN-ETN, Treshold passed, Reseacher.

COST Projects (European Cooperation in Science and Technology)

1. "Improved Protection of Medical Devices Against Infection", Action No: TD-1305, 2014 – 2018, Reseacher.
2. "From NAno to MAcro BIOmaterials (design, processing, characterization, modeling) and applications to stem cells regenerative orthopedic and dental medicine", Action No: MP-1005, 2011 – 2015, Reseacher.

TUBITAK Research Projects

1. "Biyomedikal Uygulamalar için Titanyum ve Alaşımlarının Yüzeyinde Biyoaktif, Antibakteriyel ve Mikroporöz Oksit Tabakasının Oluşturulması", Project No: 111M517, 2012 – 2014, Reseacher.

Istanbul Development Agency Projects

1. "ITU Partikül Malzemeler ve Karakterizasyon Laboratuvar Olanakları ile İlişkin Endüstriyel Faaliyetler", Project No: ISTKA/2012/BİL/28, 2012 – 2013, Test Engineer.

University funded Scientific Research Projects

1. “Alüminyum Matrisli Al-Al₂Ce Kompozitlerin Hazırlanması ve Plasma Elektrolitik Oksidasyon Yöntemiyle Kaplanması”, Istanbul Technical University, Project No: MGA-2019-42222, 2019 – 2021, Reseacher.
2. “Mikro-ark Oksidasyon (MAO) Yöntemiyle Seramik Al₂O₃ Kaplanmış Titanyumun (Cp-Ti) Karakterizasyonu”, Bursa Technical University, Project No: 191N027, 2019 – 2020, Reseacher.
3. “Polimer Nanokompozitlerde Mekanik Özelliklerin İncelenmesi”, Istanbul Technical University, Project No: MGA-2018-41576, 2018 – 2020, Reseacher.
4. "Titanyum Alaşımları Üzerinde Oluşturulan Oksit Kaplamaların Korozyonlu Yorulma ve Yüksek Sıcaklık Aşınma Davranışlarının İncelenmesi", Istanbul Technical University, Project No: 38557, 2014 – 2016, Reseacher.
5. "Ortopedik İmplantların Yüzey Özelliklerinin Geliştirilmesi", Istanbul Technical University, Project No: 33550, 2010 – 2011, Reseacher.

INTERNATIONAL MEETINGS & VISITS

- Advanced characterization surveys were employed through ESTEEM3 EU Project at AGH University of Technology, Krakow, Poland (November 2019)
- COST Action TD-1305 EU Project Final Meeting at Belgrad, Serbia (February 2018)
- *In-vivo* biological surveys and advanced characterization studies were conducted through Erasmus+ Teaching Mobility at AGH University of Technology and Polish Academy of Sciences, Metallurgy and Materials Science Institute, Krakow, Poland (July 2017)
- COST Action TD-1305 EU Project Meeting at Valletta, Malta (April 2017)
- COST Action TD-1305 EU Project Binational Meeting at Samos, Greece and Kusadasi, Turkey (September 2016)

- Advanced characterization surveys were employed through ESTEEM2 EU Project at AGH University of Technology, Krakow, Poland (March 2016)
- COST Action TD-1305 EU Project Meeting at Davos, Switzerland (June 2015)
- Short-Term Scientific Mission (STSM) was carried out through COST Action TD-1305 EU Project at Polish Academy of Sciences, Metallurgy and Materials Science Institute (Krakow, Poland) and a seminar was conducted about recent studies at Istanbul Technical University (October 2015)
- Short-Term Scientific Mission (STSM) was carried out through COST Action MP-1005 EU Project at AGH University of Technology, Krakow, Poland and advanced characterization studies were conducted on samples prepared at Istanbul Technical University (January 2014)

AWARDS & HONOURS

- Best Young Researcher Award at ISLAC'18 Conference in Karabuk, Turkey (2018)
- Horizon 2020 Project Evaluation Report TUBITAK Threshold Award (2015)
- TUBITAK Graduate National Scholarship for Ph.D Programme (2010-2015)
- TUBITAK Graduate National Scholarship for M.Sc Programme (2008-2010)
- Istanbul Technical University, Metallurgical and Materials Engineering Bachelor's Programme 2nd rank in the Department (2008)

REFEREEING

- Materials & Design (Elsevier, IF: 5.770, ISSN: 0264-1275)
- Applied Surface Science (Elsevier, IF: 5.155, ISSN: 0169-4332)
- Journal of Alloys and Compounds (Elsevier, IF: 4.175, ISSN: 0925-8388)
- Surface and Coatings Technology (Elsevier, IF: 3.192, ISSN: 0257-8972)
- Materials Letters (Elsevier, IF: 3.019, ISSN: 0167-577X)
- International Journal of Oral Science (Nature, IF: 2.750, ISSN: 1674-2818)
- Journal of Materials Engineering and Performance (Springer, IF:1.476, ISSN: 1059-9495)
- Rare Metals (Springer, IF:1.785, ISSN: 1001-0521)

TEACHING ASSISTANTSHIP

- Mechanical Behaviour of Materials (B.Sc)
- Welding Technology (B.Sc)
- Plastic Forming of Materials (B.Sc)
- Technical Drawing (B.Sc)
- Heat treatment of Metals (B.Sc)
- Cupellation Experiment – Metlab II (B.Sc)
- Hardness, Impact and Deep Drawing Experiments – Metlab III (B.Sc)
- Heat Treatment of Metals – Metlab III (B.Sc)
- Mechanical Properties of Materials (M.Sc)
- Failure Analysis (M.Sc)
- High Temperature Deformation (Ph.D)
- Principles of Tribology (Ph.D)

THESIS

Ph.D degree

“Mechanical and Corrosion Behaviours of Micro Arc Oxidized AZ91 Magnesium Alloy”, Materials Science and Engineering Programme, Science Institute, Istanbul Technical University, Supervisor: Prof. Dr. Huseyin Cimenoglu.

M.Sc degree

“Mikro Ark Yöntemiyle Titanyum Esaslı İmplantların Yüzey Özelliklerinin Geliştirilmesi”, Materials Science and Engineering Programme, Science Institute, Istanbul Technical University, Supervisor: Prof. Dr. Huseyin Cimenoglu, 2010.

Bachelor's degree

Faiz Muhaffel, Utku Can Varol, Caner Kocaman, “Türkiye'de Paslanmaz Çelik Üretim Tesisinin Tasarlanması”, Metallurgical and Materials Engineering, Istanbul Technial University, Supervisor: Prof. Dr. Kelami Şeşen, 2008.

PUBLICATIONS

Achievements (17.05.2020)

Publications: 23 (Web of Science), 29 (Scopus), 45 (Google Scholar)

Citations: 244 (Web of Science), 280 (Scopus), 346 (Google Scholar)

h-index: 12 (Web of Science), 12 (Scopus), 12 (Google Scholar)

Patents

1. Huseyin Cimenoglu, **Faiz Muhaffel**, Onur Tazegul, “Preparation of coated material used in biomedical applications, involves preparing coating composition, forming coating layer on to-be-coated material by cold gas-dynamic spray technique, and oxidizing coated surface”, 2017, Turkish Patent Institute, No. 2013 11246.
2. Eyup Sabri Kayali, **Faiz Muhaffel**, Huseyin Cimenoglu, Murat Baydogan, Onur Meydanoglu, Onur Tazegul, “Low Temperature Aluminium Oxide Coating Process of Magnesium and Magnesium Alloys”, 2015, Turkish Patent Institute, No. 2012 09392.

Book Chapters

1. Hasan Guleryuz, **Faiz Muhaffel**, Huseyin Cimenoglu, “Oxidized Titanium”, 2015, Materials for Total Joint Arthroplasty: Biotribology of Potential Bearings, Edited by Robert Sonntag, Jan Philippe Kretzer, Imperial College Press, London, United Kingdom, s. 355-394, ISBN: 978-1-78326-716-3.

International Journal Articles

1. Sukanta Bhowmick, **Faiz Muhaffel**, Guiyan Sun, Huseyin Cimenoglu, Ahmet T. Alpas, “Role of counterface materials with DLC and N-based coatings on frictional behaviour of AZ31 magnesium alloy subjected to plasma electrolytic oxidation (PEO) process”, 2020, Surface and Coatings Technology, Article in Press. (SCI)

2. **Faiz Muhaffel**, Mertcan Kaba, Grzegorz Cempura, Bora Derin, Adam Kruk, Erdem Atar, Huseyin Cimenoglu, “Influence of alumina and zirconia incorporations on the structure and wear resistance of titania-based MAO coatings”, 2019, *Surface and Coatings Technology*, Vol. 377, s. 124900. (SCI)
3. Ridvan Gecu, Yakup Yurekturk, Emre Tekoglu, **Faiz Muhaffel**, Ahmet Karaaslan “Improving wear resistance of 304 stainless steel reinforced AA7075 aluminum matrix composite by micro-arc oxidation”, 2019, *Surface and Coatings Technology*, Vol. 368, s. 15–24. (SCI)
4. **Faiz Muhaffel**, Huseyin Cimenoglu, “Development of corrosion and wear resistant micro-arc oxidation coating on a magnesium alloy”, 2019, *Surface and Coatings Technology*, Vol. 357, s. 822–832. (SCI)
5. Dilek Teker Aydogan, **Faiz Muhaffel**, Ozge Karabiyik Acar, Emine Nursen Topcuoglu, Hatice Guven Kulekci, Murat Baydogan, Gamze Torun Kose and Huseyin Cimenoglu, “Micro arc oxidation of Ti6Al4V alloy in silver acetate containing electrolyte for biomedical applications”, 2018, *Surface Innovations*, Vol. 6(4-5), s. 277-285. (SCI)
6. Dilek Teker Aydogan, **Faiz Muhaffel**, Meryem Menekse, Ozge Karabiyik Acar, Grzegorz Cempura, Murat Baydogan, Nevin Gul Karaguler, Gamze Torun Kose, Aleksandra Czyska-Filemonowicz and Huseyin Cimenoglu, “Optimization of micro-arc oxidation electrolyte for fabrication of antibacterial coating on titanium”, 2018, *Materials Technology: Advanced Performance Materials*, Vol. 33(2), s. 119-126. (SCI)
7. Joanna Karbowniczek, **Faiz Muhaffel**, Grzegorz Cempura, Huseyin Cimenoglu, Aleksandra Czyska-Filemonowicz, “Influence of electrolyte composition on microstructural, adhesion and in vitro cytocompatibility properties of micro-arc oxidation coatings produced on biomedical Ti6Al7Nb alloy”, 2017, *Surface and Coatings Technology*, Vol. 321, s. 97–107. (SCI)
8. Ahmet Hilmi Paksoy, **Faiz Muhaffel**, Merve Koca, Ozge Gokce, Sanaz Mohammadzadeh, Huseyin Cimenoglu, “Formation of Corrosion-Resistant Alumina Coating on 6061 Aluminum Alloy by the Combination of Micro Arc Oxidation and Sealing Treatments”, 2017, *Materials and Technology*, Vol. 51(1), s. 117-121. (SCI-Expanded)
9. Sinem Fidan, **Faiz Muhaffel**, Martijn Riool, Grzegorz Cempura, Loonie de Boer, Sebastian Zaat, Alexandra Czyska-Filemonowicz, Huseyin Cimenoglu, “Fabrication of oxide layer on zirconium by micro-arc oxidation: Structural and antimicrobial characteristics”, 2017, *Materials Science and Engineering C: Biological Applications*, Vol. 71, s. 565–569. (SCI)
10. **Faiz Muhaffel**, Grzegorz Cempura, Meryem Menekse, Aleksandra Czyska-Filemonowicz, Nevin Karaguler, Huseyin Cimenoglu, “Characteristics of multi-layer coatings synthesized on Ti6Al4V alloy by micro-arc oxidation in silver nitrate added electrolytes”, 2016, *Surface and Coatings Technology*, Vol. 307(A), s. 308-315. (SCI)
11. Özge Balcı, Duygu Ağaoğulları, **Faiz Muhaffel**, Lütfi Öveçoğlu, Huseyin Cimenoglu, İsmail Duman, “Effect of sintering techniques on the microstructure and mechanical properties of niobium borides”, 2016, *Journal of the European Ceramic Society*, Vol. 36, s. 3113-3123. (SCI)
12. Bülent Nilüfer, Hasan Gökçe, **Faiz Muhaffel**, Lütfi Öveçoğlu, Huseyin Cimenoglu, “The effect of La₂O₃ on the microstructure and room temperature mechanical properties of t-ZrO₂”, 2016, *Ceramics International*, Vol. 42, s. 9443–9447. (SCI)
13. **Faiz Muhaffel**, Huseyin Cimenoglu, “Synthesis of zirconia-incorporated titania layer by microarc oxidation for biomedical applications”, 2015, *Surface and Interface Analysis*, Vol. 47, s. 1166-1173. (SCI)

14. Yakup Yürektürk, **Faiz Muhaffel**, Murat Baydogan, “Characterization of micro arc oxidized 6082 aluminum alloy in an electrolyte containing carbon nanotubes”, 2015, Surface and Coating Technology, Vol. 269, s. 83-90. (SCI)
15. **Faiz Muhaffel**, Faruk Mert, Huseyin Cimenoglu, Daniel Höche, Mikhail L. Zheludkevich, Carsten Blawert, “Characterisation and corrosion behaviour of plasma electrolytic oxidation coatings on high pressure die cast Mg–5Al–0.4Mn–xCe (x = 0, 0.5, 1) alloys”, 2015, Surface and Coating Technology, Vol. 269, s. 200-211. (SCI)
16. Dilek Teker, **Faiz Muhaffel**, Meryem Menekse, Murat Baydogan, Nevin Karaguler, Huseyin Cimenoglu, “Characteristics of multi-layer coating formed on commercially pure titanium for biomedical applications”, 2015, Materials Science and Engineering: C, Vol. 48, s. 549-555. (SCI)
17. Hamidreza Farnoush, **Faiz Muhaffel**, Huseyin Cimenoglu, “Fabrication and characterization of nano-HA-45S5 bioglass composite coatings on calcium phosphate containing micro-arc oxidized CP-Ti substrates”, 2015, Applied Surface Science, Vol. 324, s. 765-774. (SCI)
18. Melih Övündür, **Faiz Muhaffel**, Huseyin Cimenoglu, “Characterization and Tribological Properties of Hard Anodized and Micro Arc Oxidized 5754 Quality Aluminum Alloy”, 2015, Tribology in Industry, Vol. 37(1), s. 55-59.
19. Selim Kaan Yazıcı, **Faiz Muhaffel**, Murat Baydogan, "Effect of incorporating carbon nanotubes into electrolyte on surface morphology of micro arc oxidized Cp-Ti", 2014, Applied Surface Science, Vol. 138, s. 10-14. (SCI)
20. Onur Tazegul, **Faiz Muhaffel**, Murat Baydogan, Onur Meydanoglu, E. Sabri Kayali, Huseyin Cimenoglu, "Wear and Corrosion Characteristics of Novel Alumina Coatings Produced by Micro Arc Oxidation on AZ91D Magnesium Alloy", 2014, Surface and Coatings Technology, Vol. 285, s. 168-173. (SCI)
21. Selim Kaan Yazıcı, **Faiz Muhaffel**, Murat Baydogan, "Effect of Voltage Parameters on Surface Morphology of Micro Arc Oxidized Cp Titanium", 2014, Defect and Diffusion Forum, Vol. 353, s. 211-216.
22. Gökce Dil, Ali Göksenli, Çağdaş Çallı, **Faiz Muhaffel**, Ali Imre Aydeniz, Ahmed Yıldız, Behiye Yüksel, "Heat Treated and As-Plated Electroless Duplex Ni-P/Ni-B Coatings: Evaluation of Hardness and Wear Resistance", 2014, Advanced Materials Research, Vol. 853, s. 264-269.
23. Dilek Teker, **Faiz Muhaffel**, Huseyin Cimenoglu, "Wear and Corrosion Characteristics of Novel Alumina Coatings Produced by Micro Arc Oxidation on AZ91D Magnesium Alloy, “Characterization and In Vitro Bioactivity of Calcium and Phosphorous Containing Titania Layer on Ti6Al4V Alloy”, 2014, Journal of Natural and Applied Science, Vol. 18 (SI: Biomechanics), s. 147-151.
24. Selim Kaan Yazıcı, **Faiz Muhaffel**, Yakup Yürektürk, Murat Baydogan, “Characterization and wear properties of carbon nanotubes incorporated ceramic coatings on Ti6Al4V and Ti6Al7Nb alloys”, 2014, Journal of Achievements in Materials and Manufacturing Engineering, Vol. 65(2), s. 73-78.
25. Dilek Teker, **Faiz Muhaffel**, Huseyin Cimenoglu, “Preparation and characterization of hydrothermally treated hydroxyapatite containing titania layer on commercially pure titanium”, 2014, Archives of Materials Science and Engineering, Vol. 68, s. 5-9.
26. Ali Imre Aydeniz, Ali Göksenli, Gökce Dil, **Faiz Muhaffel**, Çağdaş Çallı, Behiye Yüksel, "Electroless Ni-B-W Coatings For Improving Hardness, Wear And Corrosion Resistance", 2013, Materials and Technology, Vol. 47, s. 803–806. (SCI-Expanded)

27. Gökce Dil, Ali Göksenli, Cagdas Calli, **Faiz Muhaffel**, Ali I. Aydeniz, Ahmed Yildiz, Behiye Yüksel, "Heat Treated and As-Plated Electroless Duplex Ni-P/Ni-B Coatings: Evaluation of Hardness and Wear Resistance", 2014, Advanced Materials Research, Vol. 853, s. 264-269.
28. Raşih Ahmed Yıldız, Ali Göksenli, Behiye Yüksel, **Faiz Muhaffel**, Ali Aydeniz, "Effect of Annealing Temperature on the Corrosion Resistance of Electroless Produced Ni-B-W Coatings", 2013, Advanced Materials Research, Vol. 651, s. 263-268.

International Presentations

1. Ezgi Akyildiz, Mert Altay, **Faiz Muhaffel**, Seckin Ozkurt, Erdem Atar, Huseyin Cimenoglu, "Impact-Sliding Wear Behaviour of Nitrided H13 Steel Tool Steels", *33rd International Conference on Surface Modifications Technologies*, Naples, Italy, 26.06.2019 – 28.06.2019.
2. Serdar Kuzkaya, Yakup Yurekturk, **Faiz Muhaffel**, Murat Baydogan, "Effect of Isothermal Annealing on Microstructure and Mechanical Properties of a High Carbon Steel", *4th International Iron and Steel Symposium (UDCS'19)*, Karabuk, Turkey, 04.04.2019 – 06.04.2019.
3. Belda Aydin, Birsen Bas, Mertcan Kaba, Mert Altay, **Faiz Muhaffel**, Utku İnan, Seckin Ozkurt, Erdem Atar, Huseyin Cimenoglu, "Influence of Nitriding on Impact Sliding Wear Behaviour of AISI H13 Tool Steel", *4th International Iron and Steel Symposium (UDCS'19)*, Karabuk, Turkey, 04.04.2019 – 06.04.2019.
4. Ezgi Akyildiz, **Faiz Muhaffel**, Mert Altay, Seckin Ozkurt, Erdem Atar, Huseyin Cimenoglu, "Impact Sliding Wear Performances of Quenched and Tempered Hot Work Tool Steels", *4th International Iron and Steel Symposium (UDCS'19)*, Karabuk, Turkey, 04.04.2019 – 06.04.2019.
5. **Faiz Muhaffel**, Dilek Teker Aydogan, Meryem Menekse, Nevin Gul Karaguler, Murat Baydogan, Huseyin Cimenoglu, "Synthesis of an Antibacterial and Wear-resistant Multilayer Coating on Biomedical Titanium-based Alloys", *2nd International Conference on Tribology (TURKEYTRIB'18)*, Istanbul, Turkey, 18.04.2018 – 20.04.2018.
6. Zafer Can Teoman, **Faiz Muhaffel**, Huseyin Cimenoglu, "Structure and Tribological Properties of Fluidized Bed Nitrided Surfaces on H13 Hot Work Tool Steel", *2nd International Conference on Tribology (TURKEYTRIB'18)*, Istanbul, Turkey, 18.04.2018 – 20.04.2018.
7. Dilara Celik, Onur Tazegul, **Faiz Muhaffel**, Huseyin Cimenoglu, "Influence of Thermal Oxidation Time on Tribology Behaviour of Ti6Al4V Alloy", *2nd International Conference on Tribology (TURKEYTRIB'18)*, Istanbul, Turkey, 18.04.2018 – 20.04.2018.
8. Umut Dogu Seckin, **Faiz Muhaffel**, Huseyin Cimenoglu, Aylin Sendemir, "In Vitro Evaluation of Surface Modifications on Periodontal Tissue Integration and Antibacterial Activity on Dental Implant Abutments", *The 2nd International Biomedical Engineering Congress*, Nicosia, Northern Cyprus, 24.05.2018 – 27.05.2018.
9. Ekin Selvi, **Faiz Muhaffel**, Murat Baydogan, "Effects of Frequency and Processing Time on the Microstructure and Thermal Barrier Properties of MAO Coating on AZ91 Alloy", *1st International Symposium on Light Alloys and Composite Materials (ISLAC'18)*, Karabuk, Turkey, 22.03.2018 – 24.03.2018.
10. **Faiz Muhaffel**, Huseyin Cimenoglu, "In Situ Synthesis of Tetragonal Zirconia Incorporated Alumina Coating on Ti6Al7Nb Alloy by Micro Arc Oxidation Process", *1st International Symposium on Light Alloys and Composite Materials (ISLAC'18)*, Karabuk, Turkey, 22.03.2018 – 24.03.2018.
11. Mehmet Ragip Muhaffel, **Faiz Muhaffel** and Huseyin Cimenoglu, "Formation of Corrosion Resistant Coating on 6082 Aluminium Alloy by Micro Arc Oxidation Technique", *1st International Symposium on Light Alloys and Composite Materials (ISLAC'18)*, Karabuk,

Turkey, 22.03.2018 – 24.03.2018.

12. Yakup Yurekturk, **Faiz Muhaffel**, Murat Baydogan, “Elevated Temperature Wear Resistance of High Silicon Cast Iron by Successive Aluminizing and Micro Arc Oxidation Treatments”, *19th International Metallurgy and Materials Congress, Istanbul, Turkey*, 25.10.2018 – 27.10.2018.
13. Mert Gunyuz, **Faiz Muhaffel**, Fahir Arisoy, Huseyin Cimenoglu, “Effect of Micro Arc Oxidation Process on Corrosion Behavior of 3003 Aluminum Alloy Produced by Twin-Roll Casting”, *8th Aluminium Surface Science and Technology Symposium, Helsingor, Denmark*, 27.05.2018 – 31.05.2018.
14. Merve Kubra Saygi, **Faiz Muhaffel**, Jennifer Patterson and Huseyin Cimenoglu, “Copper and Zinc Incorporated Oxide Coatings on Commercially Pure Titanium for Biomedical Applications”, *The International Conference on Materials Science, Mechanical and Automotive Engineerings and Technology (IMSMATEC), Cesme, Turkey*, 10.04.2018 – 12.04.2018.
15. Mertcan Kaba, **Faiz Muhaffel**, Ugur Malayoglu, Huseyin Cimenoglu, “Improving Wear Resistance of WE43 Magnesium Alloy by Combination of Cold Spray and Micro Arc Oxidation Techniques”, *The International Conference on Materials Science, Mechanical and Automotive Engineerings and Technology (IMSMATEC), Cesme, Turkey*, 10.04.2018 – 12.04.2018.
16. **Faiz Muhaffel**, Dilek Teker Aydogan, Meryem Menekse, Nevin Gul Karaguler, Murat Baydogan, Huseyin Cimenoglu, “Synthesis of an Antibacterial and Wear-resistant Multilayer Coating on Biomedical Titanium-based alloys”, *7th S&T and Final meeting of IPROMEDAI, Belgrad, Serbia*, 27.02.2018 – 01.03.2018.
17. Cengizhan Taslicay, Yakup Yurekturk, **Faiz Muhaffel**, Murat Baydogan, “A Ceramic Coating for Corrosion Protection on AISI 316Ti Stainless Steel”, *The 2nd International Conference on Material Science and Technology (IMSTEC 2017), Nevşehir, Turkey*, 11.10.2017 – 13.10.2017.
18. Ekin Selvi, **Faiz Muhaffel**, Murat Baydogan, “Synthesis of Zirconia/Magnesia Composite Coating on AZ91 Magnesium Alloy”, *The 2nd International Conference on Material Science and Technology (IMSTEC 2017), Nevşehir, Turkey*, 11.10.2017 – 13.10.2017.
19. Mine Yucel, **Faiz Muhaffel**, Huseyin Cimenoglu, “Nitriding of Inconel 713LC Superalloy via Fluidized Bed”, *The 2nd International Conference on Material Science and Technology (IMSTEC 2017), Nevşehir, Turkey*, 11.10.2017 – 13.10.2017.
20. **Faiz Muhaffel**, Ali Serdar Vanli, Huseyin Cimenoglu, “The Influence of Trisodium Phosphate Concentration on Tribological and Corrosion Properties of MAO’ed AZ91 Magnesium Alloy” *The 2nd International Conference on Material Science and Technology (IMSTEC 2017), Nevşehir, Turkey*, 11.10.2017 – 13.10.2017.
21. Cengizhan Taslicay, Yakup Yurekturk, **Faiz Muhaffel**, Murat Baydogan, “Production of a protective alumina coating on 316Ti grade stainless steel by micro arc oxidation process”, *9th International Conference on Tribology (Balkantrib’17), Nevşehir, Turkey*, 13.09.2017 – 15.09.2017.
22. Yakup Yurekturk, **Faiz Muhaffel**, Murat Baydogan, “Formation of a wear-resistant oxide coating on high silicon cast iron by combining aluminizing and micro arc oxidation methods”, *9th International Conference on Tribology (Balkantrib’17), Nevşehir, Turkey*, 13.09.2017 – 15.09.2017.
23. **Faiz Muhaffel**, Ali Serdar Vanlı, Huseyin Cimenoglu, “Wear characteristics of micro arc oxidized AZ91 magnesium alloy in a chlorine-rich environment”, *9th International Conference on Tribology (Balkantrib’17), Nevşehir, Turkey*, 13.09.2017 – 15.09.2017.

24. Berkan Camlibel, **Faiz Muhaffel**, Yakup Yurekturk, Murat Baydogan, “Microstructural Characterization Of Micro Arc Oxidized Za-8 Zinc-Aluminum Alloy”, *31st International Conference on Surface Modification Technologies (SMT31)*, Mons, Belgium, 05.07.2017 – 07.07.2017.
25. **Faiz Muhaffel**, Onur Tazegul, Huseyin Cimenoglu, “Characteristics of the Multilayer Coating Fabricated on AZ91 Alloy by Micro Arc Oxidation After Cold Spraying of Al-Cu Powder Mixture”, *15th International Conference on Tribology (Serbiatrib'17)*, Kragujevac, Serbia, 17.05.2017 – 19.05.2017.
26. Zafer Can Teoman, **Faiz Muhaffel**, Huseyin Cimenoglu, “Wear Characteristics of H13 Hot Work Tool Steel at Elevated Temperatures”, *3rd Iron & Steel Symposium 2017 (UDCS'17)*, Karabük, Turkey, 03.04.2017 – 05.04.2017.
27. Mustafa Tekin, Cengizhan Taşlıçay, **Faiz Muhaffel**, Huseyin Cimenoglu, “Wear and Corrosion Resistances of Oxide Coatings formed on Magnesium Alloys by Micro Arc Oxidation”, *4th International Conference on Mechanical Properties of Materials*, Venice, Italy, 14.12.2016 – 17.12.2016.
28. António Puppe dos Santos, **Faiz Muhaffel**, Ahmet Hilmi Paksoy, Huseyin Cimenoglu, “Production of a Coating Containing Ca, P and Zn on AZ31 Magnesium Alloy by Micro Arc Oxidation”, *UNITECH'16*, Gabrovo, Bulgaria, 18.11.2016 – 19.11.2016.
29. Gizem Gider, Yakup Yurekturk, Ali Ulas Malcioglu, **Faiz Muhaffel**, Murat Baydogan, “Effect of Single-Step and Two-Step Austempering on Microstructure and Mechanical Properties of a High Silicon Ductile Iron”, *International Conference on Advances in Automotive Technologies*, İstanbul, Turkey, 11.10.2016 – 14.10.2016.
30. Gizem Gider, Yakup Yurekturk, Ahmet Hilmi Paksoy, **Faiz Muhaffel**, Murat Baydogan, “Microstructural investigation and wear performance of spheroidal graphite cast iron treated by a two-step austempering process”, *16. International Materials Symposium (IMSP'16)*, Denizli, Turkey, 12.10.2016 – 14.10.2016.
31. Diallo Ibrahima Mafouz, Ahmet Hilmi Paksoy, **Faiz Muhaffel**, Onur Tazegul, Huseyin Cimenoglu, “Characteristic of mullite-based oxide coating on in situ CuAl₂ reinforced aluminum matrix composite”, *16. International Materials Symposium (IMSP'16)*, Denizli, Turkey, 12.10.2016 – 14.10.2016.
32. Mustafa Aciksoz, Yakup Yurekturk, **Faiz Muhaffel**, Murat Baydogan, “Characterization of micro arc oxidized unalloyed low-carbon steel after hot-dip aluminizing process”, *13th International Conference of Diffusion in Solid and Liquids*, Split, Croatia, 26.06.2016 – 30.06.2016.
33. Deniz Kılıc, **Faiz Muhaffel**, Yakup Yurekturk, Murat Baydogan, “Characterization of Carbon Nanotubes Incorporated Ceramic Coatings Fabricated via Micro Arc Oxidation on AZ91D Magnesium Alloy”, *30th International Conference on Surface Modification Technologies (SMT30)*, Milano, Italy, 29.06.2016 – 01.07.2016.
34. Emir Karacam, **Faiz Muhaffel**, Mohammad Hasan Zamani, Mehdi Divandari, Huseyin Cimenoglu, “Formation of a Protective Ceramic Coating on Friction Stir Welded Magnesium and Aluminum by Micro Arc Oxidation”, *30th International Conference on Surface Modification Technologies (SMT30)*, Milano, Italy, 29.06.2016 – 01.07.2016.
35. Bülent Nilüfer, Hasan Gökçe, **Faiz Muhaffel**, Lütfi Öveçoğlu, Huseyin Cimenoglu, “Characterization and Mechanical Properties of Recovered Waste Zirconia Powders by Powder Metallurgy Technique”, *International Conference on Material Science and Technology*, Nevşehir, Turkey, 06.04.2016 – 08.04.2016.

36. Diallo Ibrahima Mafouz, Ahmet Hilmi Paksoy, Onur Tazegul, **Faiz Muhaffel**, Huseyin Cimenoglu, "In Situ Production and Mechanical Properties of Aluminum Matrix Aluminum-Copper Intermetallic Composite", *International Conference on Material Science and Technology*, Nevşehir, Turkey, 06.04.2016 – 08.04.2016.
37. Cengizhan Taşlıçay, Yakup Yürektürk, **Faiz Muhaffel**, Murat Baydogan, "Characteristics of Ceramic Coating Fabricated by Micro Arc Oxidation on Aluminized Stainless Steel", *International Conference on Material Science and Technology*, Nevşehir, Turkey, 06.04.2016 – 08.04.2016.
38. Ulas Malcioglu, Yakup Yurekturk, **Faiz Muhaffel**, Murat Baydogan, "Tribological Investigation of Austempered Grey Cast Iron for Automotive Components under Dry Sliding Conditions", *TurkeyTrib'15*, Istanbul, Turkey, 07.10.2015 – 09.10.2015.
39. Merve Koca, Ozge Gokce, Sanaz Mohammadzadeh, Ahmet Hilmi Paksoy, **Faiz Muhaffel**, Huseyin Cimenoglu, "Formation of Corrosion-Resistant Alumina Coating on 6061 Aluminum Alloy by the Combination of Micro Arc Oxidation and Sealing Treatments", *23rd International Conference on Materials and Technology*, Bernardin, Slovenija, 27.09.2015 – 30.09.2015.
40. Dilek Teker, **Faiz Muhaffel**, Huseyin Cimenoglu, "Antibiotic loaded micro porous oxide coatings for titanium-based biomedical implants", *eCM XVI - Bone and Implant Infection*, Davos, Switzerland, 24.06.2015 – 26.06.2015.
41. **Faiz Muhaffel**, Onur Tazegul, Huseyin Cimenoglu, "Formation of bio-compatible titanium dioxide layer onto 316L stainless steel substrate", *11th International Conference on Diffusion in Solids and Liquids*, Munich, Germany, 22.06.2015 – 26.06.2015.
42. Joanna Karbowniczek, Grzegorz Cempura, **Faiz Muhaffel**, Huseyin Cimenoglu, Aleksandra Czyska-Filemonowicz, "Characterization of complex coatings deposited by micro-arc oxidation on Ti6Al7Nb alloy", *Unified Scientific Approaches Towards Regenerative Orthopaedics and Dentistry*, Venice, Italy, 25.03.2015 – 27.03.2015.
43. Deniz Kilic, **Faiz Muhaffel**, Yakup Yurekturk, Murat Baydogan, "Influence of Pulse Time on the Structural and Tribological Properties of Micro Arc Oxidized AZ91D Magnesium Alloy", *TMS 2015 - 144th Annual Meeting & Exhibition*, Orlando, USA, 15.03.2015 - 19.03.2015.
44. Federico Bartolezzi, **Faiz Muhaffel**, Onur Tazegul, Marcello Cabibbo, Huseyin Cimenoglu, "Characterization and Tribological Performance of TiB₂ Reinforced Al-Al₁₂Si MMCs", *Advances in Materials & Processing Technology Conference*, Dubai, United Arab Emirates, 16.11.2014 - 20.11.2014.
45. Merih Ovundur, **Faiz Muhaffel**, Huseyin Cimenoglu, "Characterization and Tribological Properties of Hard Anodized and Micro Arc Oxidized 5754 Quality Aluminum Alloy", *8th International Conference on Tribology*, Sinaia, Romania, 30.10.2014 - 01.11.2014.
46. Selim Kaan Yazıcı, **Faiz Muhaffel**, Yakup Yürektürk, Murat Baydogan, "Characterization and Wear Properties of Carbon Nanotubes incorporated Ceramic Coatings on Ti6Al4V and Ti6Al7Nb Alloys", *15. International Materials Symposium (IMSP'14)*, Denizli, Turkey, 16.10.2014 - 18.10.2014.
47. Dilek Teker, **Faiz Muhaffel**, Huseyin Cimenoglu, "Preparation and Characterization of Hydrothermally Treated Hydroxyapatite Containing Titania Layer on Commercially Pure Titanium", *15. International Materials Symposium (IMSP'14)*, Denizli, Turkey, 16.10.2014 - 18.10.2014.
48. Joanna Karbowniczek, Grzegorz Cempura, **Faiz Muhaffel**, Huseyin Cimenoglu, Aleksandra Czyska-Filemonowicz, "Influence of micro-arc oxidation conditions on microstructure and phase composition of hydroxyapatite coatings", *XV. International Conference on Electron Microscopy*, Krakow, Poland, 15.09.2014 - 18.09.2014.

49. **Faiz Muhaffel**, Huseyin Cimenoglu, "Tribological Properties of Ceramic Coatings on Ti6Al4V Alloy: Effect of Electrical Regime on Wear and Adhesion", *Recent Appointees in Materials Science Conference*, Bath, United Kingdom, 11.09.2014 - 12.09.2014.
50. Joanna Karbowniczek, Grzegorz Cempura, **Faiz Muhaffel**, Huseyin Cimenoglu, Sabri Kayali, Aleksandra Czyrska-Filemonowicz, "Characterization of the porous coatings with incorporated silver deposited by micro-arc oxidation", *18. International Microscopy Congress*, Prague, Czech Republic, 07.09.2014 - 12.09.2014.
51. Faruk Mert, **Faiz Muhaffel**, Huseyin Cimenoglu, "Characterization and wear behaviour of MAO on high pressure die cast AM50 magnesium alloy", *6th Symposium on Biodegradable Metals*, Maratea, Italy, 24.08.2014 - 29.08.2014.
52. Deniz Kılıç, **Faiz Muhaffel**, Murat Baydogan, "Micro Arc Oxidation of AZ91D Magnesium Alloy in Silicate Electrolyte - Effect of Electrical Parameters", *2. Surface Treatment Symposium*, İstanbul, Turkey, 24.06.2014 - 27.06.2014.
53. **Faiz Muhaffel**, Dilek Teker, Huseyin Cimenoglu, "Tribological behaviour of micro arc oxidation coatings on Cp-Ti for biomedical applications", *2nd International Conference on BioTribology*, Toronto, Canada, 11.05.2014 - 14.05.2014.
54. Esra Sener, **Faiz Muhaffel**, Huseyin Cimenoglu, "Evaluation of Wear Properties of Oxide Coatings on AZ91D Magnesium Alloy", *The International Conference on Innovative Materials and Structures*, İstanbul, Turkey, 13.09.2013 - 14.09.2013.
55. Dilek Teker, **Faiz Muhaffel**, Meryem Menekse, Nevin Gul Karaguler, Huseyin Cimenoglu, "Evaluation of Antibacterial Properties and In Vitro Bioactivity of Silver Containing Titania Coatings on Titanium", *The 7th World Congress on Biomimetics, Artificial Muscles and Nano-Bio*, Jeju-do, South Korea, 26.08.2013 - 30.08.2013.
56. **Faiz Muhaffel**, Hamidreza Farnoush, Huseyin Cimenoglu, "Surface Modification of CP-Ti Substrate by Combining Micro-arc Oxidation and Electrophoretic Deposition Processes", *9th Coating Science International*, Noordwick, The Netherlands, 24.06.2013 - 28.06.2013.
57. Selim Kaan Yazici, **Faiz Muhaffel**, Murat Baydogan, "Effect of incorporating carbon nanotube into electrolyte on surface morphology of micro arc oxidized Cp-Ti", *9th Nano-TR*, Erzurum, Turkey, 24.06.2013 - 28.06.2013.
58. Selim Kaan Yazici, **Faiz Muhaffel**, Murat Baydogan, "Effect of Voltage Parameters on Surface Morphology of Micro Arc Oxidized Cp Titanium", *9th International Conference on Diffusion in Solids and Liquids*, Madrid, Spain, 24.06.2013 - 28.06.2013.
59. J. Karbowniczek, T. Moskalewicz, E. Amler, **F. Muhaffel**, H. Cimenoglu, A. Czyrska-Filemonowicz, "Hydroxyapatite Coating Deposited on Ti-6Al-7Nb Titanium Alloy by Micro-arc Oxidation", *Termis-EU 2013*, İstanbul, Turkey, 17.06.2013 - 20.06.2013.
60. Yakup Yürektürk, **Faiz Muhaffel**, Murat Baydogan, "Effect of Process Parameters on the Surface Properties of Micro Arc Oxidized 6082 Aluminum Alloy", *Conference of the International Journal of Arts and Sciences*, Prague, Czech Republic, 15.05.2013 - 17.05.2013.
61. Ece Canan Kosmaz, Ezgi Akyildiz, Gozde Karacali, Ali Akkurt, Mehmet Akif Unal, **Faiz Muhaffel**, Murat BAYDOGAN "Synthesis of Alumina Coatings on Aluminum Matrix Composites by Micro Arc Oxidation Method", *Aluminium Two Thousand Congress 2013*, Milano, İtalya, 14.05.2013 - 18.05.2013.
62. Mehmet Ragıp Muhaffel, **Faiz Muhaffel**, Yaman Eraslan, Huseyin Cimenoglu, "Investigation on Tribological and Corrosion Properties of Micro Arc Oxidized SiCp Reinforced AZ91D Magnesium Alloy", *International Conference for Academic Disciplines*, Floransa, İtalya, 22.04.2013 - 25.05.2013.

63. Çağdaş Çallı, Ali Göksenli, Gökçe Dil, Behiye Yüksel, **Faiz Muhaffel**, “Hardness, Wear Properties and Corrosion Resistance of Electroless Ni-B/Ni-B-W Duplex Coatings”, *Materials For Tomorrow 2012*, Göteborg, İsveç, 23.11.2012 - 25.11.2012.
64. **Faiz Muhaffel**, Ali Göksenli, Gökçe Dil, Behiye Yüksel, Çağdaş Çallı, “Electroless Ni-P/Ni-B-W Coatings: Evaluation of Hardness, Wear and Corrosion Resistance”, *UNITECH'12*, Gabrovo, Bulgaristan, 15.11.2012 - 17.11.2012.
65. **Faiz Muhaffel**, Huseyin Cimenoglu, “Single Step Synthesis and Characterization of Hydroxyapatite Deposited Microporous Titania Layer on Cp-Titanium by Micro Arc Oxidation”, *Innovations in Biomedical Materials 2012*, Raleigh, USA, 10.09.2012 - 13.09.2012.
66. **Faiz Muhaffel**, Mert Günyüz, Ceren Daşkaya, Dilek Heperkan, Huseyin Cimenoglu, “Synthesis of Hydroxyapatite Coated Antibacterial Titania Layer on Titanium-based Biomedical Alloys”, *12. World Titanium Conference*, Beijing, China, 19.06.2011 - 24.06.2011.
67. **Faiz Muhaffel**, İsa Metin Özkara, Mert Günyüz, Ceren Daşkaya, Dilek Heperkan, Huseyin Cimenoglu, “Antibacterial Microporous Coating Formation on a Ti6Al4V Alloy via Micro Arc Oxidation Process”, *TMS 2011 – 140th Annual Meeting & Exhibition*, San Diego, USA, 28.02.2011 - 04.03.2011.

National Presentations

1. Gizem Gider, Yakup Yürektürk, Ahmet Hilmi Paksoy, **Faiz Muhaffel**, Murat Baydogan, “Influence of Austempering Temperature on Microstructural and Mechanical Properties of EN-GJS-500-7 and EN-GJS-600-3 grades nodular cast irons”, 5. Isıl İşlem Sempozyumu, İstanbul, 02.06.2016 – 03.06.2016.
2. Duygu Ağaoğulları, Özge Balcı, **Faiz Muhaffel**, M. Lütfi Öveçoğlu, Huseyin Cimenoglu, İsmail Duman, “Microstructure and Mechanical Properties of the Sintered Niobium Borides”, 9. Uluslararası Katılımlı Seramik Kongresi, Afyonkarahisar, 26.11.2015 – 28.11.2015.
3. Dilek Teker, **Faiz Muhaffel**, Huseyin Cimenoglu, “Characterization and In Vitro Bioactivity of Calcium and Phosphorous Containing Titania Layer on Ti6Al4V Alloy”, 7. *Ulusal Biyomekanik Kongresi*, Isparta, 16.10.2014 - 18.10.2014.
4. **Faiz Muhaffel**, Mert Günyüz, Ceren Daşkaya, Dilek Heperkan, Huseyin Cimenoglu, “Mikro Ark Oksidasyon Yöntemiyle Titanyum Esaslı İmplantların Yüzey Özelliklerinin Geliştirilmesi”, 5. *Ulusal Biyomekanik Kongresi*, Çeşme, 25.09.2010 - 29.09.2010.