

## Prof. BİLGEHAN ÖGEL

### Personal Information

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### International Researcher IDs

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Publons / Web Of Science ResearcherID: ABH-4890-2020

ScopusID: 56556702900

Yoksis Researcher ID: 164698

### Research Areas

Engineering and Technology

### Academic Titles / Tasks

Professor, Middle East Technical University, Faculty of Engineering, Department of Metallurgical and Materials Engineering, 2001 - Continues

Associate Professor, Middle East Technical University, Faculty of Engineering, Department of Metallurgical and Materials Engineering, 1996 - 2001

Assistant Professor, Middle East Technical University, Faculty of Engineering, Department of Metallurgical and Materials Engineering, 1993 - 1996

### Academic and Administrative Experience

Rector's Advisor, Middle East Technical University, Faculty of Engineering, Department of Metallurgical and Materials Engineering, 2004 - 2012

Head of Department, Middle East Technical University, Faculty of Engineering, Department of Metallurgical and Materials Engineering, 2003 - 2004

Fakülte Kurulu Üyesi, Middle East Technical University, Faculty of Engineering, Department of Metallurgical and Materials Engineering, 1994 - 1995

### Courses

Introduction to Materials Science and Engineering, Undergraduate, 2021 - 2022

### Advising Theses

ÖGEL B., The effect of reused powder characteristics on the properties of additively manufactured 17-4 Ph stainless steel, Postgraduate, E.KAHRAMAN(Student), 2022

ÖGEL B., The effect of copper on the microstructure and aging characteristics of an 0.8% C bainitic steel, Postgraduate, Ç.YILDIRIM(Student), 2022

ÖGEL B., The comparison of microstructure and mechanical properties of a low carbon bainitic forging steel after isothermal transformation and direct cooling, Postgraduate, M.MUSTAFA(Student), 2022

ÖGEL B., The effect of si and mo on the isothermal transformation treatment and tempering of a bainitic medium C steel, Doctorate, G.KAFADAR(Student), 2021

ÖGEL B., Effect of cold rolling and annealing parameters on the microstructure and mechanical properties of dual phase steels, Postgraduate, O.Poyraz(Student), 2020

ÖGEL B., Investigation of fatigue behavior of a high strength lower bainitic structure in 60SIMN5 steel via a modified testing method, Postgraduate, E.Uluğ(Student), 2019

ÖGEL B., The comparison of bainitic transformations and mechanical properties of 60simn5 and 55cr3 steels, Postgraduate, S.Bakır(Student), 2019

ÖGEL B., Bainitic transformation in low carbon micro-alloyed hot forged steels for diesel engine components, Postgraduate, B.Keskin(Student), 2019

ÖGEL B., Characterization of bainitic and martensitic microstructures in bearing steels, Postgraduate, E.Naz(Student), 2019

ÖGEL B., Mechanical behavior of low alloy steels with bainitic and bainitic-martensitic structure, Postgraduate, B.Tezgör(Student), 2019

ÖGEL B., The Aging characteristics of a medium carbon steel with and without copper, Postgraduate, O.Emre(Student), 2019

ÖGEL B., An investigation of bainitic transformation in low carbon alloy and high carbon railway steels, Postgraduate, Z.ÖZTÜRK(Student), 2018

ÖGEL B., The effect of retained austenite and carbide distribution on the wear resistance of bearing steel, Postgraduate, Z.ÖZGENECİ(Student), 2017

BATIGÜN C., ÖGEL B., Investigation of mechanical property changes after mig welding of (7XXX) series aluminum alloys, Postgraduate, S.OKAY(Student), 2016

ÖGEL B., Effect of heat treatment on microstructural and mechanical properties of molybdenum based pm ferrous alloys, Postgraduate, R.DAVOUDNEZHAD(Student), 2016

ÖGEL B., GÜRBÜZ R., Determination of fracture and fatigue behaviours of 4340 steel, Postgraduate, G.ŞEN(Student), 2015

ÖGEL B., Sinter hardening studies of Astaloy 85 Mo powder with varying copper contents, Postgraduate, M.DİNCER(Student), 2014

ÖGEL B., Sinter hardening studies of ASTALOY 85 Mo powder with varying copper contents /, Postgraduate, M.Dinçer(Student), 2014

BATIGÜN C., ÖGEL B., Optimization of mechanical and microstructural properties of weld joints between aluminium-magnesium and aluminium-magnesium-silicon alloys with different thicknesses, Postgraduate, M.EKŞİ(Student), 2013

ÖGEL B., Sinter-hardening studies of Distaloy DH powders with varying carbon contents, Postgraduate, G.KILIÇ(Student), 2013

ÖGEL B., Sinter-hardening studies distaloy DH powders with varying carbon contents, Postgraduate, G.Kılıç(Student), 2013

ÖGEL B., KARAKAŞ G., The photocatalytic activity of praseodymium doped titanium dioxide, Doctorate, D.DOĞU(Student), 2012

ÖGEL B., GÜR C. H., Severe plastic deformation of age hardenable aluminum alloys, Doctorate, E.TAN(Student), 2012

ÖGEL B., Processing and characterization of porous titanium nickel shape memory alloys, Doctorate, T.AYDOĞMUŞ(Student), 2010

ÖGEL B., Investigation of the effect of dissimilar channel angular pressing method to the mechanical and microstructural properties of 6061 aluminum alloy sheets, Postgraduate, A.AYKUT(Student), 2010

ÖGEL B., Monitoring variation of surface residual stresses in the shot peened steel components by magnetic barkhausen noise method, Postgraduate, S.SAVAŞ(Student), 2010

ÖGEL B., Determination of residual stress state in steel weldments, Postgraduate, H.İLKER(Student), 2009

ÖGEL B., GÜR C. H., Design and production of a dissimilar channel angular pressing system to obtain high strength

aluminum alloy sheets, Postgraduate, G.EMRE(Student), 2009

ÖGEL B., YILDIRIM R. O., Effect of aging on the mechanical properties of boron carbide particle reinforced aluminum metal matrix composites, Doctorate, M.SERDAR(Student), 2007

ÖGEL B., The effect of hot-deformation on mechanical properties and age hardening characteristics of Al-Mg-Si based wrought aluminum alloys, Postgraduate, E.Tan(Student), 2006

ÖGEL B., Powder metallurgy of high density W-Ni-Cu alloys, Postgraduate, N.KAAN(Student), 2006

ÖGEL B., The effect of hot-deformation on mechanical properties and age hardening characteristics of Al-Mg-Si based wrought aluminum alloys, Postgraduate, E.TAN(Student), 2006

ÖGEL B., Determination of welding parameter dependent hot cracking susceptibility of 5086-H32 aluminium alloy with the use of MVT method, Doctorate, C.BATIGÜN(Student), 2005

ÖGEL B., Low velocity impact characterization of monolithic and laminated AA 2024 plates by drop weight test, Postgraduate, Y.EREN(Student), 2003

ÖGEL B., GÜRBÜZ R., A study on flexural strength of layered al-sic composites produced by powder metallurgy methods, Postgraduate, S.Tirkeş(Student), 2002

ÖGEL B., GÜRBÜZ R., A Study on flexural strength of layered Al-SiCp composites produced by powder metallurgy methods, Postgraduate, S.TİRKEŞ(Student), 2002

ÖGEL B., Powder metallurgy of CuAlNi shape memory alloys., Postgraduate, Z.ESEN(Student), 2002

ÖGEL B., Low velocity ballistic characterization of steel armour plates by drop-weight tests, Postgraduate, C.ŞİMŞİR(Student), 2002

ÖGEL B., Sintering studies on Cu-Al-Ni powder mixtures., Postgraduate, C.BAĞDU(Student), 2002

ÖGEL B., Low velocity ballistic impact behaviour of the Al-matrix composites, Postgraduate, S.KAYA(Student), 2002

ÖGEL B., Low velocity ballistic characterization of steel armour plates by drop-weight test, Postgraduate, C.Şimşir(Student), 2002

ÖGEL B., Spontaneous infiltration studies in Al-Mg-SiC system, Postgraduate, H.AKINCI(Student), 2001

ÖGEL B., Electrical properties of polyphenylacetylene-aluminum composite films, Postgraduate, C.KAYA(Student), 2001

ÖGEL B., Production of Cu-based shape memory alloys from pure powders by conventional hot pressing, Postgraduate, F.CANSU(Student), 2001

ÖGEL B., USANMAZ A., Electrical properties of polyphenylacetylene-aluminum composite films, Postgraduate, C.Kaya(Student), 2001

ÖGEL B., Conventional hot pressing and age hardening characteristics of Al-Cu-SiC and Al-Cu-TiC composites, Postgraduate, Ö.ESMA(Student), 2001

ÖGEL B., KALKANLI A., Mikrostructural and consolidation studies of air-atomized Al-Fe-V-Si and Al-Cr-Fe alloy powders, Postgraduate, Ö.GENCEL(Student), 2000

ÖGEL B., GÜRBÜZ R., Hot pressing studies in Al-Cu-Mg-SiC system, Postgraduate, F.MUAZZEZ(Student), 2000

ÖGEL B., Determination of microstructural properties of PM Al-SiC composites by ultrasonic techniques, Postgraduate, E.ATAŞ(Student), 2000

ÖGEL B., Production of Cu-based shape memory alloys by powder metallurgy, Postgraduate, A.FEHMİ(Student), 1999

ÖGEL B., GÜRBÜZ R., Mechanical properties of PM Al-SiC composites produced by conventional hot-pressing method, Postgraduate, G.Kaya(Student), 1999

ÖGEL B., A study of nickel diffusion coating on a plain carbon steel, Postgraduate, N.Meltem(Student), 1998

ÖGEL B., A microstructural study of hot pressed PM aluminum-copper and aluminum-copper-siliconcarbide composites, Postgraduate, K.Bolay(Student), 1998

ÖGEL B., Production of Al-SiC composites by using conventional ball mill and its effect to microstructural homogene, Postgraduate, V.İŞIKER(Student), 1997

ÖGEL B., Production of al-sic composites by using conventional ball mill and its effect to microstructural homogenization, Postgraduate, V.İşiker(Student), 1997

ÖGEL B., Metallographic examination of liquid phase sintering of aluminium-copper and aluminium-zinc systems, Postgraduate, E.Şahinoğlu(Student), 1997

ÖGEL B., A Study of nickel diffusion coating on stainless steel substrates and its effect on stress corrosion cracking, Postgraduate, I.Atay(Student), 1997

ÖGEL B., A Study od nickel diffusion coating on stainless steel substrates and its effect on stress corrosion cracking,

Postgraduate, LATAY(Student), 1997

ÖGEL B., A Metallographic examination of liquid phase sintering of aluminum copper and aluminum zinc systems,

Postgraduate, Ç.ŞAHİNOĞLU(Student), 1997

## Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Effect of isothermal transformation treatment and tempering on the microstructure and hardness of a medium c and high si steels**  
Kafadar G., Kalkanlı A., Özdemir A. T., Ögel B.  
ISIJ International, vol.61, no.5, pp.1679-1687, 2021 (SCI-Expanded)
- II. **Recrystallization, grain growth and austenite formation in cold rolled steels during intercritical annealing**  
Poyraz O., ÖGEL B.  
JOURNAL OF MATERIALS RESEARCH AND TECHNOLOGY-JMR&T, vol.9, no.5, pp.11263-11277, 2020 (SCI-Expanded)
- III. **Ballistic impact performance of an armor material consisting of alumina and dual phase steel layers**  
Ubeyli M., Deniz H., DEMİR T., ÖGEL B., Gurel B., KELEŞ Ö.  
MATERIALS & DESIGN, vol.32, no.3, pp.1565-1570, 2011 (SCI-Expanded)
- IV. **Effect of Feed Rate on Tool Wear in Milling of Al-4% Cu/B(4)C(p) Composite**  
Ubeyli M., ACIR A., Karakas M. S., ÖGEL B.  
MATERIALS AND MANUFACTURING PROCESSES, vol.23, no.8, pp.865-870, 2008 (SCI-Expanded)
- V. **Effect of cutting speed on tool performance in milling of B4Cp reinforced aluminum metal matrix composites**  
Karakas M. S., Acir A., Ubeyli M., Ogel B.  
JOURNAL OF MATERIALS PROCESSING TECHNOLOGY, vol.178, pp.241-246, 2006 (SCI-Expanded)
- VI. **Microstructural characterization and tensile properties of hot pressed Al-SiC composites prepared from pure Al and Cu powders**  
Ogel B., Gurbuz R.  
MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES MICROSTRUCTURE AND PROCESSING, vol.301, no.2, pp.213-220, 2001 (SCI-Expanded)
- VII. **Nickel diffusion coating on austenitic stainless steels & its effect on stress corrosion cracking**  
Ogel B., Sapci I.  
PLATING AND SURFACE FINISHING, vol.86, no.4, pp.87-90, 1999 (SCI-Expanded)
- VIII. **The effect of double austenitization on the microstructure and toughness of AISI M2 high speed steel**  
Ogel B., Tekin E.  
STEEL RESEARCH, vol.69, no.6, pp.247-252, 1998 (SCI-Expanded)
- IX. **CORRELATION OF MICROSTRUCTURE AND FAILURE INITIATING SITES IN AN AISI M2 HIGH-SPEED STEEL USING VICKERS INDENTATION**  
OGEL B., TEKIN E.  
STEEL RESEARCH, vol.61, no.12, pp.624-629, 1990 (SCI-Expanded)

## Refereed Congress / Symposium Publications in Proceedings

- I. **Production of copper-based shape memory alloy using powder metallurgy methods Bakir esasli şekil bellekli alaşımlarin toz metalurjisi yöntemi ile üretimi**  
ÖGEL B., Dericioğlu A. F.  
Ulusal Toz Metalurjisi Konferansı: Second National Powder Metallurgy Conference, Ankara, Turkey, 15 - 17 September 1999, pp.483-488

## II. A study of nickel diffusion coating on plain carbon steel substrates

Ogel B., Yanar M.

14th International Congress on Electron Microscopy, Cancun, Mexico, 31 August - 04 September 1998, pp.221-222

### Supported Projects

ÖGEL B., Project Supported by Higher Education Institutions, YÜKSEK KARBONLU CR-MN-AL ALAŞIMLARINDA NANOBEYNİT OLUŞUMU, 2017 - 2017

ÖGEL B., Project Supported by Higher Education Institutions, NANOBAİNİTİC TRANSFORMATIONS İN LOW ALLOYS STEELS, 2017 - 2017

ÖGEL B., Project Supported by Higher Education Institutions, FEN BİLİMLERİ ENSTİTÜSÜ/LİSANSÜSTÜ TEZ PROJESİ, 2014 - 2015

ÖGEL B., Project Supported by Higher Education Institutions, FEN BİLİMLERİ ENSTİTÜSÜ/LİSANSÜSTÜ TEZ PROJESİ, 2014 - 2015

ÖGEL B., Project Supported by Higher Education Institutions, FEN BİLİMLERİ ENSTİTÜSÜ/LİSANSÜSTÜ TEZ PROJESİ, 2014 - 2015

ÖGEL B., Project Supported by Higher Education Institutions, FEN BİLİMLERİ ENSTİTÜSÜ/LİSANSÜSTÜ TEZ PROJESİ, 2014 - 2015

ÖGEL B., Project Supported by Higher Education Institutions, FEN BİLİMLERİ ENSTİTÜSÜ/LİSANSÜSTÜ TEZ PROJESİ, 2014 - 2015

ÖGEL B., Project Supported by Higher Education Institutions, FEN BİLİMLERİ ENSTİTÜSÜ/LİSANSÜSTÜ TEZ PROJESİ, 2014 - 2014

ÖGEL B., Project Supported by Higher Education Institutions, FEN BİLİMLERİ ENSTİTÜSÜ/LİSANSÜSTÜ TEZ PROJESİ, 2014 - 2014

ÖGEL B., GÜRBÜZ R., Project Supported by Higher Education Institutions, MİKROALAŞIMLI ÇELİKLERDE BEYNİT OLUŞUMU VE BUNA BAĞLI MEKANİK ÖZELLİKLERDEKİ DEĞİŞİMİN İNCELENMESİ, 2014 - 2014

ÖGEL B., Project Supported by Higher Education Institutions, FEN BİLİMLERİ ENSTİTÜSÜ/LİSANSÜSTÜ TEZ PROJESİ, 2014 - 2014

ÖGEL B., Project Supported by Higher Education Institutions, FEN BİLİMLERİ ENSTİTÜSÜ/LİSANSÜSTÜ TEZ PROJESİ, 2014 - 2014

ÖGEL B., KILIÇ G., Project Supported by Higher Education Institutions, GRAFİT KATKILI Fe-Mo TOZ KARIŞIMINDA SİNTERLEME İLE SERTLEŞTİRME, 2013 - 2013

ÖGEL B., DİNCER M., Project Supported by Higher Education Institutions, DEMİR ESASLI TOZ ALAŞIMINDA SİNTERLEME İLE SERTLEŞTİRME İŞLEMİNİN MEKANİK ÖZELLİKLERE ETKİSİ, 2013 - 2013

ÖGEL B., Project Supported by Higher Education Institutions, Dağın Tanrıları Nemrut Belgesel., 2012 - 2012

### Scientific Consultations

BORÇELİK A.Ş., Scientific Consultancy, Middle East Technical University, Faculty of Engineering, Department of Metallurgical and Materials Engineering, Turkey, 2020 - 2020

### Metrics

Publication: 24

Citation (WoS): 281

Citation (Scopus): 276

H-Index (WoS): 7

H-Index (Scopus): 7

## **Non Academic Experience**

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