

## Asst. Prof. GÖKHAN KARA

### Personal Information

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### International Researcher IDs

ORCID: 0000-0003-2610-9656

Publons / Web Of Science ResearcherID: AAW-4714-2020

ScopusID: 57203281108

Yoksis Researcher ID: 26824

### Education Information

Doctorate, Karadeniz Technical University, Fen Bilimleri Enstitüsü, Makina Mühendisliği / Malzeme Anabilimdalı , Turkey  
2011 - 2017

Postgraduate, Istanbul Technical University, Fen Bilimleri Enstitüsü, Metalurji Ve Malzeme Mühendisliği / Üretim  
Metalurjisi, Turkey 1999 - 2002

Undergraduate, Istanbul Technical University, Kimya-Metalurji Fakültesi, Metalurji Ve Malzeme Mühendisliği Bölümü,  
Turkey 1994 - 1998

### Foreign Languages

English, C1 Advanced

### Dissertations

Doctorate, Farklı kristal yapılarıdaki titanyum ve alaşımlarının borlanması ve borlamanın bu malzemelerin mikroyapı,  
mekanik ve biyoyumluluk özellikleri üzerindeki etkilerinin incelenmesi, Karadeniz Technical University, Fen Bilimleri  
Enstitüsü, Makina Mühendisliği/Malzeme, 2017

Postgraduate, Levha Döküm Metodu ile üretilen AA8006 alaşımlı levhaların termo-mekanik davranışının incelenmesi,  
Istanbul Technical University, Fen Bilimleri Enstitüsü, Metalurji Ve Malzeme Mühendisliği, 2002

### Research Areas

Metallurgical and Materials Engineering, Material science and engineering, Biomaterials, Thermal Treatment, Plating,  
Material Characterization, Mechanical Metallurgy, Engineering and Technology

### Academic Titles / Tasks

Assistant Professor, Karadeniz Technical University, Sürmene Deniz Bilimleri Fakültesi, Gemi İnşaatı ve Gemi Makineleri  
Mühendisliği, 2021 - Continues

Lecturer PhD, Karadeniz Technical University, Abdullah Kanca Meslek Yüksekokulu, Makine ve Metal Teknolojileri, 2013 -

## Academic and Administrative Experience

Karadeniz Technical University, Makine Ve Metal Teknolojileri, 2013 - 2014

## Courses

### Associate Degree

Malzeme, Associate Degree, 2013 - 2014

Makine Elemanları, Associate Degree, 2013 - 2014

Mesleki Yabancı Dil, Associate Degree, 2013 - 2014

İşletme Yönetimi, Associate Degree, 2013 - 2014

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

- I. **Characterization of Boride Layer Formed on Ti-6Al-4V Alloy by Electron Beam Evaporation Technique**  
KARA G., PÜRÇEK G.  
PHYSICS OF METALS AND METALLOGRAPHY, vol.121, no.14, pp.1466-1472, 2020 (SCI-Expanded)
- II. **Mechanical properties and cell proliferation response of borided biomedical titanium alloys with different crystalline structures**  
KARA G., PÜRÇEK G.  
SURFACE & COATINGS TECHNOLOGY, vol.397, 2020 (SCI-Expanded)
- III. **Boriding behaviour of titanium alloys with different crystalline structures**  
Kara G., Pürçek G.  
SURFACE ENGINEERING, vol.35, no.7, pp.611-617, 2019 (SCI-Expanded)
- IV. **Growth kinetics and mechanical characterization of boride layers formed on beta-type Ti-45Nb alloy**  
Kara G., Pürçek G.  
SURFACE & COATINGS TECHNOLOGY, vol.352, pp.201-212, 2018 (SCI-Expanded)
- V. **Improvement of wear behaviour of titanium by boriding**  
Kara G., Pürçek G., Yanar H.  
INDUSTRIAL LUBRICATION AND TRIBOLOGY, vol.69, no.1, pp.65-70, 2017 (SCI-Expanded)
- VI. **MICROSTRUCTURE AND TRIBOLOGICAL PROPERTIES OF Ti BORIDED BY ELECTRON BEAM EVAPORATION TECHNIQUE**  
KARA G., PÜRÇEK G., ATASOY Y., BACAŞIZ E.  
JOURNAL OF THE BALKAN TRIBOLOGICAL ASSOCIATION, vol.21, no.1, pp.24-37, 2015 (SCI-Expanded)

## Books

- I. **The Effect of Casting Parameters on the Metallurgical Quality of Twin Roll Cast Strip**  
Kara G., Birol Y., Akkurt S., Romanovski C.  
in: Continuous Casting, K. Ehrke, W. Schneider, Editor, Wiley-Vch Verlag Gmbh, Karlsruhe, pp.40-44, 2006

## Papers Published in Refereed Scientific Meetings

- I. **STUDY ON MICROSTRUCTURE AND MECHANICAL PROPERTIES OF SURFACE LAYER FORMED ON**

## **TITANIUM BY BORONITRIDING**

Kara G.

5. International Conference on Material Science and Technology (IMSTEC 2020), Niğde, Turkey, 16 - 18 October 2020, pp.5-7

### **II. BORIDE LAYER EVOLUTION DEPENDING ON BORIDING AGENTS**

Kara G.

5. International Conference on Material Science and Technology (IMSTEC 2020), Niğde, Turkey, 16 - 18 October 2020, pp.8-10

### **III. Investigation of mechanical properties and biocompatibility of borided titanium alloys with different crystalline structures**

Kara G., Pürçek G.

2. International Turkish World Engineering and Science Congress, Antalya, Turkey, 7 - 10 November 2019, pp.728-732

### **IV. Characterization of microstructure and mechanical properties of Ti-6Al-4V alloy borided by electron beam evaporation technique**

Kara G., Pürçek G.

2. International Turkish World Engineering and Science Congress, Antalya, Turkey, 7 - 10 November 2019, pp.733-737

### **V. MECHANICAL CHARACTERIZATION OF BORIDE LAYERS FORMED ON ALPHA, BETA AND ALPHABETA TITANIUM ALLOYS**

Kara G., Pürçek G.

3. International Conference on Material Science and Technology (IMSTEC 2018), Niğde, Turkey, 17 - 19 September 2018, pp.444-447

### **VI. EVOLUTION OF BORIDE LAYERS ON ALPHA, BETA AND ALPHABETA TITANIUM ALLOYS**

Kara G., Pürçek G.

3. International Conference on Material Science and Technology (IMSTEC 2018), Niğde, Turkey, 17 - 19 September 2018, pp.431-434

### **VII. Effect of Boriding Mixture on Mechanical and Tribological Properties of Borided CP Grade-2 Ti**

KARA G., PÜRÇEK G.

BalkanTRIB'17 9. International Conference on Tribology, Nevşehir, Turkey, 13 - 15 September 2017, pp.1

### **VIII. Microstructure and Wear Behaviour of Borided Ti-6Al-4V Alloy by Solid State Diffusion Process**

KARA G., PÜRÇEK G.

BalkanTRIB17 9. International Conference on Tribology, Nevşehir, Turkey, 13 - 15 September 2017, pp.1

### **IX. Tribological behavior of borided cp titanium (grade-2) under linear reciprocating sliding conditions**

KARA G., PÜRÇEK G.

IBERTRIB 2017 - IX Iberian Conference on Tribology, Guimarães, Portugal, 13 - 15 July 2017, pp.1

### **X. Microstructure and tribological properties of $\beta$ -Ti alloy borided by electron beam evaporation**

Kara G., Pürçek G.

International Conference on Engineering Tribology and Applied Technology (ICETAT 2016), Taipei, Taiwan, 4 - 06 November 2016, pp.1

### **XI. Improvement of wear behaviour of titanium by boriding**

KARA G., PÜRÇEK G., YANAR H.

TURKEYTRIB 2015 1st International Conference on Tribology, İstanbul, Turkey, 7 - 09 October 2015, pp.1

### **XII. Improvement Of Wear Resistance Of Pure Titanium (Grade-2) By Boriding Using Electro-Beam Evaporation Technique At Room Temperature**

KARA G., PÜRÇEK G., BACAĞIZ E., ATASOY Y.

BALKANTRIB'14, 8th International Conference on Tribology, Sinaia, Romania, 30 October - 01 November 2014, pp.1

### **XIII. The effect of homogenization practice on the microstructure of AA6063 alloys**

Birol Y., Kara G., Ucuñcuođlu S., Usta M.

3rd Symposium on Hot Deformation of Aluminum Alloys, California, United States Of America, 2 - 06 March 2003,

pp.463-472

- XIV. **Fe/Si oranının şerit döküm AA8011 alaşımının mikroyapısına etkisi**  
BIROL Y., KARA G.  
Metalurji ve Malzeme Kongresi, İstanbul, Turkey, 15 - 17 June 2002, pp.100-1004
- XV. **Şerit döküm AlFeSi alaşımlarından ısı dönüştürücü levha üretimi**  
BIROL Y., KARA G.  
Metalurji ve Malzeme Kongresi, İstanbul, Turkey, 15 - 17 June 2002, pp.105-107
- XVI. **Twin-roll cast 5000 series aluminum sheet for automotive applications**  
BIROL Y., ZEYBEKOGLU H., Kara G., DUNDAR M., ÇAKIR O., AKKURT A., YILDIZBAYRAK G., ROMANOWSKI C.  
Symposium on Automotive Aluminum 2001/Aluminum Joining Including Friction Stir Welding held at the 2001 TMS Annual Meeting, Louisiana, United States Of America, 12 - 14 February 2001, pp.107-113
- XVII. **The response of twin roll cast aluminum strips to thermo-mechanical processing**  
BIROL Y., ZEYBEKOGLU H., OKUMUS E., Kara G., AKKURT A., ROMANOWSKI C.  
130th TMS Annual Meeting, Louisiana, United States Of America, 11 - 15 February 2000, pp.1107-1113

## Patent

Kara G., Katıl hal bornitrürleme işlemi, Patent, CHAPTER C Chemistry; Metallurgy, The Invention Recourse Number: 2020/20764 , Standard Registration, 2020

Kara G., Pürçek G., TİTANYUM VE ALAŞIMLARININ KATI HAL BORLANMASI İÇİN BORLAMA KARIŞIMI, Patent, CHAPTER C Chemistry; Metallurgy, The Invention Registration Number: 102018000006809 , Standard Registration, 2020

Kara G., Titanyum yüzeylerin kutu borlanması için bir toz karışımı, Patent, CHAPTER C Chemistry; Metallurgy, The Invention Recourse Number: 2020/20615 , Standard Registration, 2020

## Metrics

Publication: 24

Citation (WoS): 41

Citation (Scopus): 29

H-Index (WoS): 4

H-Index (Scopus): 4

## Non Academic Experience

HEKİMOĞLU DÖKÜM San.Tic.A.Ş., Araştırma Geliştirme Müdürü

TOFAŞ Türk Otomobil Fabrikası A.Ş. , Yan Sanayi Geliştirme Uzmanı (SQE)

KANCA El Aletleri Dövme Çelik A.Ş., Laboratuar ve Malzeme Sorumlusu

Ümit Döküm San ve Tic. Şti, Üretim Müdürü

TÜBİTAK-Marmara Araştırma Merkezi, Araştırmacı

Assan Alüminyum San ve Tic. A.Ş, Araştırma & Geliştirme Uzmanı