

Prof. HAKAN GAŞAN

Personal Information

Mobile Phone: [+90 533 722 6739](tel:+905337226739)

Office Phone: [+90 222 239 3750](tel:+902222393750) Extension: 3710

Email: hgasan@ogu.edu.tr

Other Email: hgasan@gmail.com

Web: <https://avesis.ogu.edu.tr/hgasan>

International Researcher IDs

ORCID: 0000-0003-0363-7173

Yoksis Researcher ID: 21098

Education Information

Doctorate, Eskisehir Osmangazi University, Fen Bilimleri Enstitüsü, Metalurji Mühendisliği (Dr), Turkey 2003 - 2008

Postgraduate, Eskisehir Osmangazi University, Fen Bilimleri Enstitüsü, Metalurji Mühendisliği (YI) (Tezli), Turkey 2000 - 2003

Undergraduate, Eskisehir Osmangazi University, Mühendislik-Mimarlık Fakültesi, Metalurji Ve Malzeme Mühendisliği Bölümü, Turkey 1996 - 2000

Dissertations

Postgraduate, Mekanik Alaşımlandırma Yöntemi ile Al89.2Fe10.8 Üretimi ve Amorf Yapısının İncelenmesi, Eskisehir Osmangazi University, Fen Bilimleri Enstitüsü, Metalurji Mühendisliği (YI) (Tezli), 2003

Research Areas

Metallurgical and Materials Engineering, Material science and engineering

Academic Titles / Tasks

Professor, Eskisehir Osmangazi University, Mühendislik-Mimarlık Fakültesi, Metalurji ve Malzeme Müh.Böl., 2020 - Continues

Associate Professor, Eskisehir Osmangazi University, Mühendislik-Mimarlık Fakültesi, Metalurji ve Malzeme Müh.Böl., 2014 - Continues

Assistant Professor, Eskisehir Osmangazi University, Metalurji Enstitüsü, Met.Enst.Md.Lüğü, 2009 - 2014

Research Assistant, Eskisehir Osmangazi University, Metalurji Enstitüsü, Met.Enst.Md.Lüğü, 2000 - 2009

Academic and Administrative Experience

Eskisehir Osmangazi University, Mühendislik-Mimarlık Fakültesi, 2015 - 2017

Eskisehir Osmangazi University, Metalurji Enstitüsü, 2009 - 2014

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Lubricity assessment of ultra-low sulfur diesel fuel (ULSD), biodiesel, and their blends, in conjunction with pure hydrocarbons and biodiesel based compounds**
Tat M. E., Çelik O. N., Er Ü., Gaşan H., Ulutan M.
International Journal of Engine Research, vol.23, no.2, pp.214-231, 2022 (SCI-Expanded)
- II. **New Eutectic High-Entropy Alloys Based on Co-Cr-Fe-Mo-Ni-Al: Design, Characterization and Mechanical Properties**
GAŞAN H., Ozcan A.
METALS AND MATERIALS INTERNATIONAL, vol.26, no.8, pp.1152-1167, 2020 (SCI-Expanded)
- III. **Effects of Al on the Phase Volume Fractions and Wear Properties in the Al_xCoCrFeMoNi High Entropy Alloy System**
Gaşan H., Lökçü E., Ozcan A., Çelik O. N., Çelikyürek İ., Ulutan M., Kurtulus Y.
METALS AND MATERIALS INTERNATIONAL, vol.26, no.3, pp.310-320, 2020 (SCI-Expanded)
- IV. **Microstructures and mechanical properties of graphene platelets-reinforced spark plasma sintered tantalum diboride-silicon carbide composites**
Gurcan K., Inci E., Sackan I., Ayas E., GAŞAN H.
MATERIALS RESEARCH EXPRESS, vol.6, no.11, 2019 (SCI-Expanded)
- V. **Formation of TaB₂ powders from high energy ball milling and borothermal reduction process**
Gurcan K., Ayas E., GAŞAN H.
MATERIALS CHEMISTRY AND PHYSICS, vol.235, 2019 (SCI-Expanded)
- VI. **Effect of Calcium Hexaborate Pentahydrate as a Lubricant Additive in Commercial Engine Oil**
Ozcan A., Yilmaz D., Koc N., GAŞAN H.
TRANSACTIONS OF THE INDIAN INSTITUTE OF METALS, vol.72, no.2, pp.327-333, 2019 (SCI-Expanded)
- VII. **Effect of cryogenic treatment on the microstructure and the wear behavior of WC-Co end mills for machining of Ti6Al4V titanium alloy**
Çelik O. N., Sert A., Gaşan H., Ulutan M.
INTERNATIONAL JOURNAL OF ADVANCED MANUFACTURING TECHNOLOGY, vol.95, pp.2989-2999, 2018 (SCI-Expanded)
- VIII. **Effect of process variables on the synthesis of MgB₂ by high energy ball mill**
KURAMA H., Erkus S., GAŞAN H.
PHYSICOCHEMICAL PROBLEMS OF MINERAL PROCESSING, vol.53, no.2, pp.969-982, 2017 (SCI-Expanded)
- IX. **The effect of process control agent usage on the structural properties of MgB₂ synthesized by high energy ball mill**
KURAMA H., Erkus S., GAŞAN H.
CERAMICS INTERNATIONAL, vol.43, 2017 (SCI-Expanded)
- X. **Synthesis of La₂Ni₇ hydrogen storage alloy by the electro-deoxidation technique**
ANIK M., BİNAL AYBAR A., Kucukdeveci N., Erken H., BAKSAN B., GAŞAN H., Hatirnaz N. B., LÖKÇÜ E.
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.40, no.5, pp.2248-2254, 2015 (SCI-Expanded)
- XI. **Hydrogen storage characteristics of Ti₂Ni alloy synthesized by the electro-deoxidation technique**
ANIK M., BAKSAN B., Orbay T. O., Kucukdeveci N., BİNAL AYBAR A., ÖZDEN R. C., GAŞAN H., KOÇ N.
INTERMETALLICS, vol.46, pp.51-55, 2014 (SCI-Expanded)
- XII. **Effects of a Destabilization Heat Treatment on the Microstructure and Abrasive Wear Behavior of High-Chromium White Cast Iron Investigated Using Different Characterization Techniques**
GAŞAN H., Erturk F.
METALLURGICAL AND MATERIALS TRANSACTIONS A-PHYSICAL METALLURGY AND MATERIALS SCIENCE, no.11, pp.4993-5005, 2013 (SCI-Expanded)
- XIII. **Particle Size Distribution and Shape Characterization of the Chips Produced During Granite Machining in Relation to Process Forces and Specific Energy**
YILMAZ N., Goktan R. M., GAŞAN H., ÇELİK O. N.
PARTICULATE SCIENCE AND TECHNOLOGY, vol.31, no.3, pp.277-286, 2013 (SCI-Expanded)
- XIV. **Effect of V, Nb, Ti and graphite additions on the hydrogen desorption temperature of magnesium**

hydride

GAŞAN H., ÇELİK O. N., Aydinbeyli N., Yaman Y. M.

INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.37, no.2, pp.1912-1918, 2012 (SCI-Expanded)

- XV. **Effects of graphite content on the microstructure and wear properties of an AISI 8620 steel surface modified by tungsten inert gas (TIC)**

ÇELİK O. N., ULUTAN M., GAŞAN H., ER Ü., BUYTOZ S.

SURFACE & COATINGS TECHNOLOGY, vol.206, no.6, pp.1423-1429, 2011 (SCI-Expanded)

- XVI. **Effect of Different Surface Treatment Methods on the Friction and Wear Behavior of AISI 4140 Steel**
ULUTAN M., ÇELİK O. N., GAŞAN H., ER Ü.

JOURNAL OF MATERIALS SCIENCE & TECHNOLOGY, vol.26, no.3, pp.251-257, 2010 (SCI-Expanded)

- XVII. **The dependence of the hydrogen desorption temperature of MgH₂ on its structural and morphological characteristics**

GAŞAN H., Aydinbeyli N., ÇELİK O. N., Yaman Y. M.

JOURNAL OF ALLOYS AND COMPOUNDS, vol.487, pp.724-729, 2009 (SCI-Expanded)

- XVIII. **Electrochemical hydrogen storage characteristics of Mg_{1.5}Al_{0.5-x}Zr_xNi (x=0, 0.1, 0.2, 0.3, 0.4, 0.5) alloys synthesized by mechanical alloying**

ANIK M., GAŞAN H., Topcu S., AKAY ERDOĞAN I., Aydinbeyli N.

INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.34, no.6, pp.2692-2700, 2009 (SCI-Expanded)

- XIX. **Boride layer growth kinetics of the borided hypoeutectoid plain carbon steels by the powder-pack method**

ÇELİK O. N., Aydinbeyli N., GAŞAN H.

PRAKTISCHE METALLOGRAPHIE-PRACTICAL METALLOGRAPHY, vol.45, no.7, pp.334-347, 2008 (SCI-Expanded)

Articles Published in Other Journals

- I. **EFFECT OF Al CONTENT ON STRUCTURE AND WEAR BEHAVIOR OF AlCoCrFeMoNi HIGH ENTROPY ALLOYS**

GAŞAN H., LÖKÇÜ E.

The Online Journal of Science and Technology, vol.7, no.4, pp.63-67, 2017 (Peer-Reviewed Journal)

- II. **TURNING OPERATION OF NICKEL BASED SUPERALLOY RENE 41**

Tali D., GAŞAN H., GÜLEŞEN M., GÜRGEN S., KUŞHAN M. C.

International Journal of Mechanical and Production Engineering, vol.5, no.5, 2017 (Peer-Reviewed Journal)

- III. **Nikel Esaslı Süperalaşım Rene 41'xxin Tornalama İşlemi**

tali d., GAŞAN H., GÜLEŞEN M., GÜRGEN S., KUŞHAN M. C.

TEI Post, 2017 (Non Peer-Reviewed Journal)

- IV. **Borlanmış AISI 1030 çeliğinin abrazif aşınma özellikleri**

ÇELİK O. N., AKBAYIR Ö., GAŞAN H., ER Ü., AYDINBEYLİ N.

Eskişehir Osmangazi Üniversitesi Mühendislik Mimarlık Fakültesi Dergisi, vol.21, no.1, pp.71-86, 2008 (Peer-Reviewed Journal)

Refereed Congress / Symposium Publications in Proceedings

- I. **INFLUENCE OF CRYOGENIC HEAT TREATMENT ON PERFORMANCE OF UNCOATED, ALCRN AND ALTiN CARBIDE CUTTING TOOLS IN MILLING OF Ti6Al4V**

Demircan Y., Gemici S., SERT A., ULUTAN M., GAŞAN H.

6th International Conference on Advances in Mechanical Engineering, İstanbul, Turkey, 20 October 2021, pp.1541-1553

- II. **PRODUCTION AND CHARACTERIZATION OF SiC REINFORCED BRASS MATRIX COMPOSITE MATERIAL BY SPS METHOD**

TOKAT BİRGİN P. Ç., UZ V., GÖREN R., AYDIN H., GAŞAN H., GÜRCAN K.

International Conference on Material Science and Technology, Ankara, Turkey, 18 - 20 October 2019

- III. **The Microstructure and Mechanical Properties of Novel (Co₄₀Cr₁₀Fe₃₀Nb₁₀Ni₁₀)₉₂Al₈ Eutectic High Entropy Alloy**
ÖZCAN A., GAŞAN H., ÇELİK O. N.
International Conference on Modern research in Engineering, Technology Science, 29 - 31 March 2019
- IV. **Effect of Deep Cryogenic Treatment on the Microstructure and Wear Behavior of Austempered Ductile Iron (GGG40)**
GAŞAN H., KAYA S.
4th International Conference on Engineering Technology and Applied Sciences, 24 - 28 April 2019
- V. **The Phase Stability and Mechanical Properties of (Co₄₀Cr₁₀Fe₅Mo₅Ni₄₀)_{82,20}Al_{17,80} Eutectic High Entropy Alloy**
GAŞAN H., ÖZCAN A., ÇELİK O. N.
International Conference On Modern research in Engineering, Technology and Science, 29 - 31 March 2019
- VI. **Microstructure and Mechanical Properties (Co₄₀Cr₁₀Fe₅Mo₅Ni₄₀)_{82,2}Al_{17,8} Eutectic High Entropy Alloy**
GAŞAN H., ÖZCAN A., ÇELİK O. N.
3rd INTERNATIONAL CONFERENCE ON ADVANCES IN NATURAL APPLIED SCIENCE ICANAS 2018, 9 - 12 May 2018
- VII. **Effects of Deep Cryogenic Treatment on the Wear Properties of 52 CrMoV4 Steel**
ÖZDEN R. C., ANIK M., GAŞAN H.
3rd INTERNATIONAL CONFERENCE ON ADVANCES IN NATURAL APPLIED SCIENCE ENGINEERING, 9 - 12 May 2018
- VIII. **Exploration of Eutectic High Entropy Alloys in the AlCoCrFeMoNi System**
ÖZCAN A., GAŞAN H.
3rd INTERNATIONAL CONFERENCE ON ADVANCES IN NATURAL APPLIED SCIENCE (ICANAS), 09 May 2018 - 12 May 2019
- IX. **The Effects Of Cryogenic Treatment On The Wear Resistance Of Grey Cast Iron Brake Discs**
GAŞAN H., YATKIN G.
8th International Advanced Technologies Symposium (IATS'17), 19 - 22 October 2017, pp.76
- X. **Effect of Ti addition on microstructure and Hardness of Al_{1.5}CoCr FeMoNi high entropy alloys**
GAŞAN H., LÖKÇÜ E., ÇELİK O. N., ÖZCAN A., ÇELİK YÜREK İ., ULUTAN M.
METAL 2017 26. International conference on Metallurgy and Materials, Brno, Czech Republic, 24 - 26 May 2017, pp.79
- XI. **Effect of Mo Addition on the Microstructure and Mechanical Properties of AlCoCrFeNi Eutectic High Entropy Alloys**
ÖZCAN A., GAŞAN H., ÇELİK O. N.
26TH INTERNATIONAL CONFERENCE ON METALLURGY AND MATERIALS - METAL 2017, 24 - 26 May 2017
- XII. **Investigation of the Mechanism of Cryogenic Treatment on the Microstructural Changes in Tungsten Carbide Tools**
SERT A., ÇELİK O. N., GAŞAN H.
3th International Conference on Engineering and Natural Science - ICENS2017, Budapest, Hungary, 3 - 07 May 2017, pp.295
- XIII. **TURNING OPERATION OF NICKEL BASED SUPERALLOY RENE 41**
TALİ D., GAŞAN H., GÜLEŞEN M., GÜRGEN S., KUŞHAN M. C.
The IIER International Conference, Prag, Czech Republic, 21 - 22 March 2017, vol.1, pp.1-3
- XIV. **The Effect of Process Control Agent PCA Usage on the Structural Properties of MgB₂ Syntheses by High Energy Ball Mill**
KURAMA H., ERKUŞ S., GAŞAN H.
The 10th Asian Meeting of Electroceramics, 4 - 07 December 2016
- XV. **EFFECT OF Al CONTENT ON STRUCTURE AND WEAR BEHAVIOR OF AlCoCrFeMoNi HIGH ENTROPY ALLOYS**

GAŞAN H., LÖKÇÜ E.

International Science and Technology Conference, 13 - 15 July 2016

- XVI. **Effect of Mo Content on Structure and Wear Behavior of AlCoCrFeMoxNi x 0 5 1 0 High Entropy Alloys**

GAŞAN H., LÖKÇÜ E., özcan a., ÇELİK O. N., ÇELİK YÜREK İ., ULUTAN M., kurtuluş y.

25th International Conference on Metallurgy and Materials, Bruno, Czech Republic, 25 - 27 May 2016

- XVII. **Effect of process variables on synthesis of MgB₂ by a high energy ball mill**

KURAMA H., Erkus S., GAŞAN H.

Mineral Engineering Conference (MEC), Swieradow Zdroj, Poland, 25 - 28 September 2016, vol.8

- XVIII. **Effect of Cryogenic Treatment on The Mechanical Properties of Compacted Graphite Cast Iron**

GAŞAN H., AKIN C. M.

24th International Conference on Metallurgy and Materials, Brno, Czech Republic, 3 - 05 June 2015

- XIX. **Investigation of Lubrication and Wear Properties of Biodiesel and Diesel Fuels on Fuel Pump Material**

TAT M. E., ÇELİK O. N., KNOTHE G., ER Ü., GAŞAN H., ULUTAN M.

World Conference on Oilseed Processing, Fats & Oils Processing, Biofuels & Applications, İzmir, Turkey, 21 - 23 June 2011

- XX. **Effect of Lubrication and Wear Properties of Biodiesel added Ultra Low Sulfur Diesel (ULSD) Fuel on Common Rail Fuel Injection Pump Material**

TAT M. E., ÇELİK O. N., KNOTHE G., ER Ü., GAŞAN H., ULUTAN M.

World Conference on Oilseed Processing, Fats & Oils Processing, Biofuels & Applications, İzmir, Turkey, 21 - 23 June 2011, pp.34

- XXI. **TIG Yöntemiyle Yüzey Özellikleri Değiştirilen AISI 8620 Çeliğinin Adhesif Aşınma Özelliklerinin İncelenmesi**

ÇELİK O. N., ULUTAN M., BUYTOZ S., GAŞAN H., ER Ü.

13th International Materials Symposium IMSP'2010, Denizli, Turkey, 13 - 15 October 2010, pp.1504-1511

- XXII. **An investigation on fatigue life of borided AISI 1010 steel**

ÇELİK O. N., GAŞAN H., ULUTAN M., MURAT S.

Proceedings of 12th International Materials Symposium(IMSP'2008), Denizli, Turkey, 15 - 17 October 2008, pp.123-130

- XXIII. **Bazı Borlu Çeliklerin Toprak İşleme Aletlerinin Uç Demirlerinde Kullanımının Laboratuvar Koşullarında İncelenmesi**

ER Ü., GAŞAN H.

23. Tarımsal Mekanizasyon Ulusal Kongresi, Çanakkale, Turkey, 6 - 08 September 2006, pp.293-296

- XXIV. **Mekanik alaşımlama yöntemi ile üretilen amorf Mg50Ni50 alaşımının ısı kararlılığı**

AYBAR K., AYDINBEYLİ N., GAŞAN H., ÇELİK O. N.

11. Uluslararası Denizli Malzeme Sempozyumu, 19 - 21 April 2006, pp.755-759

Supported Projects

GAŞAN H., Project Supported by Higher Education Institutions, Kriyojenik İşlemin AISI D2 Çeliğinin Aşınma Davranışına Etkisinin İncelenmesi, 2016 - 2017

GAŞAN H., Kurtuluş Y., ULUTAN M., ÇELİK O. N., ÇELİK YÜREK İ., LÖKÇÜ E., ÖZCAN A., Project Supported by Higher Education Institutions, Yüksek-Entropili Alaşım (YEA) Tasarımı Anlayışı İle Üretilen AlCoCrFeMoNi Alaşımının Ti ve V İlavesi ile Aşınma Özelliklerinin İyileştirilmesi, 2014 - 2016

Metrics

Publication: 47

Citation (WoS): 342

Citation (Scopus): 373

H-Index (WoS): 12

H-Index (Scopus): 12