

Prof. ZİYA ENGİN ERKMEN

Personal Information

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International Researcher IDs

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Biography

Ziya Engin Erkmen 26.03.1960 yılında Eskişehir, Şeker Fabrikaları lojmanlarında doğmuştur. Babası Celal Erkmen Fabrika'nın doktoru, annesi Emine Nazan Erkmen fabrikanın Y. Kimya Mühendisi olarak görev yapmıştır. İlköğretimini 1966-1969 Yunusemre ve 1969-1971 İlhami Ahmet Örnekal (İstanbul) da tamamlayarak, orta ve lise eğitimini 1971-1979 yıllarında Saint Joseph Fransız erkek lisesinde bitirmiştir. 1979-1983 arası İTÜ Kimya Metalurji Fakültesini birincilikle bitirerek Lisans diplomasını almıştır. 1985-1987 arasında U. of Michigan Ann Arbor Nükleer Mühendislik Nükleer Malzemelerde Yüksek Lisansını tamamlamış, daha sonra 1988-1992 senelerinde U. of Florida Nükleer Mühendislik Bölümünden doktora unvanını almıştır. Evli ve 2 çocuk sahibi olan araştırmacı halen Marmara Üniversitesinde Prof. olarak görev yapmaktadır. En önemli 3 eseri birisi deney kitabı olmak üzere 2. ve 3. baskıları yapılmış ders kitaplarıdır. Bunların dışında biyomalzemeler ve nükleer malzemeler, faz diyagramları ilgili matematik modellemeleri kapsayan yayınları da vardır. Denizle ilgili her türlü spor, kayak yapmak, kitap okumak ve doğa yürüyüşleri başlıca ilgi alanlarıdır.

Education Information

Doctorate, University of Florida, Faculty of Engineering, Nuclear Engineering, United States Of America 1988 - 1992

Postgraduate, University of Michigan, Faculty of Engineering, Nuclear Engineering, United States Of America 1985 - 1987

Undergraduate, Istanbul Technical University, Kimya-Metalurji Fakültesi, Metalurji Ve Malzeme Mühendisliği Bölümü, Turkey 1979 - 1983

Foreign Languages

French, C1 Advanced

English, C1 Advanced

Dissertations

Doctorate, Interaction of Yttria and Molybdenum with UF_n gas (n = 4,6) at high temperatures, University of Florida, 1992

Research Areas

Metallurgical and Materials Engineering, Production Metallurgy

Academic Titles / Tasks

Professor, Marmara University, Faculty of Engineering, Metallurgical and Material Engineering, 2007 - 2025

Associate Professor, Marmara University, Faculty of Engineering, Metallurgical and Material Engineering, 2000 - 2007

Assistant Professor, Marmara University, Faculty of Engineering, Metallurgical and Material Engineering, 1993 - 2000

Academic and Administrative Experience

Head of Department, Marmara University, Faculty of Engineering, Metallurgical and Material Engineering, 2012 - 2015

Head of Department, Marmara University, Faculty of Engineering, Metallurgical and Material Engineering, 2001 - 2003

Courses

Malzeme Karakterizasyonu , Undergraduate, 2020 - 2021

Seramik Malzemeler ve Proses Teknikleri, Undergraduate, 2020 - 2021

Faz Diyagramları, Undergraduate, 2020 - 2021

Advising Theses

ERKMEN Z. E., The production of alumina-titania biocomposite combined with hydroxyapatite (HA), Postgraduate, B.NİLĞÜN(Student), 2014

Erkmen Z. E., Kayalı E. S., Ticari inert cam katkılı hidroksiyapatit-alümina ve hidroksiyapatit-zirkonya kompozitlerin üretimi ve karakterizasyonu, Postgraduate, B.BULUT(Student), 2014

ERKMEN Z. E., Seramik sanayii hızlı pişirim fırınlarında kullanılan rulo malzemesi müllitin üretimi ve bazı mekanik özelliklerinin belirlenmesi, Postgraduate, S.YORULMAZ(Student), 1998

Erkmen Z. E., cam fiber takviyeli abc kompozitler ve mekanik özellikleri, Postgraduate, a.çetinkaya(Student), 1996

Jury Memberships

Associate Professor Exam, Associate Professor Exam, Konya Teknik Üniversitesi, May, 2019

Associate Professor Exam, Associate Professor Exam, Marmara Üniversitesi, November, 2015

Associate Professor Exam, Associate Professor Exam, Kütahya Dumlupınar Üniversitesi, May, 2012

Associate Professor Exam, Associate Professor Exam, İzmir Tinaztepe Üniversitesi, April, 2012

Associate Professor Exam, Associate Professor Exam, Sakarya Üniversitesi, March, 2010

Taught Courses And Trainings

Erkmen Z. E., Seramiklerin Karakterizasyonu XRD kullanımı, 1994 - 1994

Published journal articles indexed by SCI, SSCI, and AHCI

- I. Effects of sintering and zirconmullite doping on nanostructural vacancies of bovine hydroxyapatite by positron techniques
 Akay L. N., Kalkandelen C., Akti N., Sengul M. S., TAV C., YAHŞI U., ERKMEN Z. E.
 JOURNAL OF THE AMERICAN CERAMIC SOCIETY, vol.106, no.5, pp.3220-3227, 2023 (SCI-Expanded)
- II. Poly(L-lactic acid)/poly(ethylene oxide) based composite electrospun fibers loaded with magnesium-aluminum layered double hydroxide nanoparticles
 Ozturk E. A., Ege Z. R., Murat S., Erdemir G., Kuruca S., ERKMEN Z. E., Duygulu O., GÜNDÜZ O., Caykara T., EROĞLU M. S.
 International Journal of Biological Macromolecules, vol.217, pp.562-571, 2022 (SCI-Expanded)
- III. INVESTIGATION OF INDENTATION FRACTURE TOUGHNESS (K-IC) AND WEIBULL PARAMETERS OF 0.25Li₍₂₎O·2SiO₍₂₎-0.75BaO·2SiO₍₂₎ GLASS-CERAMIC
 Ertug B., Cetiner B. N., Gokce H., ERKMEN Z. E., Öveçoglu M. L.
 ARCHIVES OF METALLURGY AND MATERIALS, vol.62, no.4, pp.1963-1968, 2017 (SCI-Expanded)
- IV. Sintering effects of mullite-doping on mechanical properties of bovine hydroxyapatite
 Yetmez M., Erkmen Z. E., Kalkandelen C., Ficai A., Oktar F. N.
 MATERIALS SCIENCE & ENGINEERING C-MATERIALS FOR BIOLOGICAL APPLICATIONS, vol.77, pp.470-475, 2017 (SCI-Expanded)
- V. Biocompatibility of Hydroxyapatite-Alumina and Hydroxyapatite-Zirconia Composites including Commercial Inert Glass (CIG) as a Ternary Component
 Bulut B., Erkmen Z. E., Kayali E. S.
 JOURNAL OF CERAMIC SCIENCE AND TECHNOLOGY, vol.7, no.3, pp.263-275, 2016 (SCI-Expanded)
- VI. Comparison of Microstructural and Mechanical Properties of Hydroxyapatite-Al₂O₃ Composites with Commercial Inert Glass (CIG) Addition
 Bulut B., Demirkol N., Erkmen Z. E., Kayali E. S.
 ACTA PHYSICA POLONICA A, vol.127, no.4, pp.1094-1096, 2015 (SCI-Expanded)
- VII. Characterization and bioactivity of hydroxyapatite ZrO₂ composites with commercial inert glass CIG addition
 berrak b., DEMİRKOL N., ERKMEN Z. E., KAYALI E. S.
 FRONTIERS OF FUNDAMENTAL AND COMPUTATIONAL PHYSICS, vol.631, pp.166-172, 2015 (SCI-Expanded)
- VIII. Production of hydroxylapatite based titania biocomposite as porous bone-like scaffold
 ÇETİNER B. N., ERKMEN Z. E.
 Archives of Materials Science and Engineering, vol.65, pp.66-71, 2014 (SCI-Expanded)
- IX. 2 B Ertuğ B N Çetiner G Sadullahoglu H Gökçe Z E Erkmen M L Öveçoglu The effect of mechanical alloying on the microhardness and fracture thoughness of BaTiO₃
 ERTUĞ B., ÇETİNER B. N., SADULLAHOGLU G., GÖKÇE H., ERKMEN Z. E., ÖVEÇOĞLU L.
 Acta Physica Polonica A, vol.123, pp.188-190, 2013 (SCI-Expanded)
- X. Production and Characterization of Bioglass®-Titania Reinforced Hydroxylapatite Composite
 ÇETİNER B. N., ERKMEN Z. E.
 Key Engineering Materials, vol.493, pp.566-571, 2012 (SCI-Expanded)
- XI. Characterisation and crystallisation kinetics of glass ceramics developed from Erdemir blast furnace slags containing Cr₂O₃ and TiO₂ nucleants
 Erkmen Z. E., Cataklı E., Oevecoglu M. L.
 ADVANCES IN APPLIED CERAMICS, vol.108, no.1, pp.57-66, 2009 (SCI-Expanded)
- XII. Microstructural morphologies of slag based glass ceramics nucleated with 5 wt Cr₂O₃ and 5 wt Cr₂O₃ 5 wt TiO₂
 ERKMEN Z. E., ÇATAKLı E., ÖVEÇOĞLU L.
 EURO CERAMICS VII, PT 1-3, vol.2062, pp.863-866, 2008 (SSCI)
- XIII. Microstructural and mechanical properties of hydroxyapatite-zirconia composites
 Erkmen Z. E., Genc Y., Oktar F. N.
 JOURNAL OF THE AMERICAN CERAMIC SOCIETY, vol.90, no.9, pp.2885-2892, 2007 (SCI-Expanded)
- XIV. Creep of Hard Porcelain During Firing

- YILMAZ S., ERKMEN Z. E.
 American Ceramic Society Bulletin, vol.86, 2007 (SCI-Expanded)
- XV. Improvement on the slip casting of Bayer-processed alumina
 TAMBAŞ T., ERKMEN Z. E., Oezgen S.
 AMERICAN CERAMIC SOCIETY BULLETIN, vol.86, no.2, pp.9201-9213, 2007 (SCI-Expanded)
- XVI. Sintering effect on mechanical properties of enamel derived andsynthetic hydroxyapatite zirconia composites
 GENÇ Y., OKTAR F. N., ERKMEN Z. E., GÖLLER G., TOYKAN D., HAYBAT H.
 EURO CERAMICS VIII, PTS 1-3, vol.264, pp.1961-1964, 2004 (SCI-Expanded)
- XVII. Sintering of Syntetic Hydroxyapatite Zirconia Compacts
 Genç Y., OKTAR F. N., ERKMEN Z. E., GÖLLER G., Derya T., Toykan D., Haybat H.
 Key Engineering Materrials, vol.264268, pp.2087-2090, 2004 (SCI-Expanded)
- XVIII. The effect of heat treatment on the morphology of D-Gun sprayed hydroxyapatite coatings
 ERKMEN Z. E.
 JOURNAL OF BIOMEDICAL MATERIALS RESEARCH, vol.48, no.6, pp.861-868, 1999 (SCI-Expanded)
- XIX. A Study on the Reaction of Yttria in Flowing Uranium Hexafluoride UF₆ Gas at 900 oC
 ERKMEN Z. E.
 Journal of Nuclear Materials, vol.257, pp.152-161, 1999 (SCI-Expanded)
- XX. Effect of Al₂O₃ additions on the thermal expansion behavior of aLi₂O ZnO SiO₂ glass ceramic
 TOPLAN N., ERKMEN Z. E., DEMİRKESEN E.
 JOURNAL OF THE AMERICAN CERAMIC SOCIETY, vol.82, pp.3619-3621, 1999 (SCI-Expanded)
- XXI. Performance of molybdenum with UF₄ at high temperatures as a wall material for space reactors
 ERKMEN Z. E., Anghaie S.
 METALLURGICAL AND MATERIALS TRANSACTIONS A-PHYSICAL METALLURGY AND MATERIALS SCIENCE, vol.28, no.10, pp.2123-2128, 1997 (SCI-Expanded)
- XXII. INTERACTION OF YTTRIA WITH URANIUM FLUORIDE GASES (UF(N), N=4, 6) AT HIGH-TEMPERATURES
 ERKMEN Z. E., anghaie s.
 JOURNAL OF THE AMERICAN CERAMIC SOCIETY, vol.77, no.6, pp.1624-1632, 1994 (SCI-Expanded)

Articles Published in Other Journals

- I. Designing an indoor/outdoor particle filter integrated with solar panels
 Süleymanoğlu F., Özüdoğru E., İri E., ERKMEN Z. E.
 Seramik Türkiye, pp.96-103, 2017 (Peer-Reviewed Journal)
- II. Characteristics and Biocompatibility of the HA basedTwo Ternary Biocomposites
 BULUT B., ERKMEN Z. E., KAYALI E. S.
 Key Engineering Materials, vol.720, pp.130-140, 2017 (Scopus)
- III. Production and Characterization of Alumina Titania Biocomposite
 ÇETİNER B. N., ERKMEN Z. E.
 AIP Conference Proceedings, vol.1653, 2015 (Scopus)

Books & Book Chapters

- I. Modern Fizik Takviyeli Malzeme Karakterizasyonu ve Temel İlkeleri
 Erkmen Z. E., Erkmen Z. E.
 Nobel Yayın Dağıtım, Ankara, 2019
- II. Ceramic Processing Techniques Laboratory Book
 Erkmen Z. E., Erkmen Z. E.

- Marmara Üniversitesi Yayınevi, İstanbul, 2016
- III. **Ceramic Processing Techniques Laboratory Book including the determination of basic thermodynamic constants**
ERKMEN Z. E.
Marmara Üniversitesi Yayınevi, İstanbul, 2016
- IV. **Ceramic Materials and Processing Phase Equilibria Physical Modelling in Electron Microscopy Examination Questions and Answers**
ERKMEN Z. E.
Yalın Yayıncılık, 2016
- V. **Metalurji ve Malzeme Mühendisleri için Faz Diyagramları**
Erkmen Z. E., Erkmen Z. E.
Marmara Üniversitesi Yayınevi, İstanbul, 2015
- VI. **Metalurji ve Malzeme Mühendiliği için Faz Diyagramları**
ERKMEN Z. E.
Marmara Üniversitesi Yayınevi, İstanbul, 2015

Refereed Congress / Symposium Publications in Proceedings

- I. **Characteristics and Biocompatibility of the Hydroxyapatite Based Two Ternary Biocomposites**
BULUT B., ERKMEN Z. E., KAYALI E. S.
BIOCERAMICS28, 18 - 21 October 2016
- II. **Production and Characterization of Alumina Titania biocomposite**
ÇETİNER B. N., ERKMEN Z. E.
APMAS 2014, 24 - 27 April 2014, pp.1-7
- III. **Comparison of Microstructural and Mechanical Properties of Hydroxyapatite-ZrO₂ Composites with Commercial Inert Glass Addition**
Bulut B., DEMİRKOL N., ERKMEN Z. E., Kayali E. S.
1st International Multidisciplinary Microscopy Congress (INTERM), Antalya, Turkey, 10 - 13 October 2013, vol.154, pp.241-246

Patent

Erkmen Z. E., Pres ve ısıtma yöntemiyle toz materyalleri birleştiren küresel kalıp yapılanması, Patent, CHAPTER C Chemistry; Metallurgy, The Invention Registration Number: TR201505250B , Standard Registration, 2018

Erkmen Z. E., Öğütme alaşımlama ve ıslık işlem gerçekleştiren bir tertibat, Patent, CHAPTER C Chemistry; Metallurgy, The Invention Registration Number: TR201401025B , Standard Registration, 2018

Activities in Scientific Journals

seramik türkiye, First Editor, 2013 - 2019

Memberships / Tasks in Scientific Organizations

Türkiye Seramik Derneği, Member of Science Committee, 1993 - Continues, Turkey
TAEK (Türkiye Atom Enerjisi Kurumu), Member, 2011 - 2015

Scientific Refereeing

TUBITAK Project, 1501 - Industry R & D Projects Support Program, Porland Porselen San. ve Tic. A.Ş., Turkey, September 2017

TUBITAK Project, 1501 - Industry R & D Projects Support Program, Kaleseramik Çanakkale Kalebodur Seramik San. A.Ş., Turkey, June 2016

TUBITAK Project, 1501 - Industry R & D Projects Support Program, Kale Seramik Çanakkale Kalebodur Seramik San. A.Ş., Turkey, April 2015

TUBITAK Project, 1501 - Industry R & D Projects Support Program, Serapool Porselen Sanayi ve Tic. A.Ş., Turkey, May 2013

TUBITAK Project, 1507 - TÜBİTAK SME R&D Start Support Program, Kar Porselen Sanayi ve Tic. Limited Şirketi, Turkey, December 2012

TUBITAK Project, 1501 - Industry R & D Projects Support Program, Serapool Porselen Sanayi ve Tic. A.Ş., Turkey, June 2012

TUBITAK Project, 1507 - TÜBİTAK SME R&D Start Support Program, İznik Çini ve Seramikleri Sanayi ve Tic. Ltd. Şti., Turkey, January 2012

TTGV, Kaleporselen A.Ş., Turkey, December 2008

TUBITAK Project, 1501 - Industry R & D Projects Support Program, Kaleseramik Çanakkale Kalebodur Seramik A.Ş., Turkey, May 2008

TUBITAK Project, 1001 - Program for Supporting Scientific and Technological Research Projects, Marmara University, Turkey, March 2008

TUBITAK Project, 1501 - Industry R & D Projects Support Program, Kaleporselen Çanakkale Kalebodur Seramik A.Ş., Turkey, November 2007

Scientific Consultations

Kaleseramik Çanakkale Kalebodur Seramik San. A.Ş., Other, Marmara University, Faculty of Engineering, Metallurgical and Material Engineering, Turkey, 2017 - 2018

Kar Porselen Sanayi ve Porselen Tic Ltd. Şirketi, Other, Marmara University, Faculty of Engineering, Metallurgical and Material Engineering, Turkey, 2012 - 2012

Serapool Porselen Sanayi ve Tic. A.Ş., Other, Marmara University, Faculty of Engineering, Metallurgical and Material Engineering, Turkey, 2010 - 2012

Kaleporselen A.Ş., Other, Marmara University, Faculty of Engineering, Metallurgical and Material Engineering, Turkey, 2008 - 2009

Tasks In Event Organizations

Erkmen Z. E., 8. International European Ceramic Congress, Scientific Congress, İstanbul, Turkey, Temmuz 2003

Mobility Activity

Erasmus Programme, Student Mobility, Ecole Nationale d'Ingénieurs de Tarbes, France, 2011 - 2011

Metrics

Publication: 38

Citation (WoS): 134

Citation (Scopus): 217

H-Index (WoS): 6

H-Index (Scopus): 7

Non Academic Experience

Marmara Üniversitesi

Public Research Center, Marmara University, Metallurgical and Material Engineering

ENERJİ VE TABİİ KAYNAKLAR BAKANLIĞI (Türkiye Atom Enerjisi Kurumu)

İstanbul Üniversitesi

University of California Berkeley

Bath Üniversitesi

Anadolu Üniversitesi