

# Prof. ZİYA ENGİN ERKMEN

## Personal Information

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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 Mühendisidir. İlköğretimini 1966-1969 Yunusemre ve 1969-1971 İlhami Ahmet Örnakal (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 AnnArbor Nükleer Mühendislik Nükleer Malzemelerde Yüksek Lisansını tamamlamış, daha sonra 1988-1992 senelerinde U. of Florida Nükleer Mühendislik Bölümünden doktora ünvanını 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. 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 UFn 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.NİLGÜN(Student), 2014  
Erkmen Z. E. , Kayalı E. S. , Ticari inert cam katkılı hidroksiapatit-alümina ve hidroksiapatit-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 Tınaztepe 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

## Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- I. **Characterization and bioactivity of hydroxyapatite ZrO<sub>2</sub> 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 (Journal Indexed in SCI Expanded)
- II. **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 (Journal Indexed in SCI Expanded)

- III. **2 B Ertuğ B N Çetiner G Sadullahoğlu H Gökçe Z E Erkmen M L Öveçoğlu The effect of mechanical alloying on the microhardness and fracture toughness of BaTiO<sub>3</sub>**  
ERTUĞ B., ÇETİNER B. N. , SADULLAHOĞLU G., GÖKÇE H., ERKMEN Z. E. , ÖVEÇOĞLU L.  
Acta Physica Polonica A, vol.123, pp.188-190, 2013 (Journal Indexed in SCI)
- IV. **Production and Characterization of Bioglass®-Titania Reinforced Hydroxylapatite Composite**  
ÇETİNER B. N. , ERKMEN Z. E.  
Key Engineering Materials, vol.493, pp.566-571, 2012 (Journal Indexed in SCI Expanded)
- V. **Microstructural morphologies of slag based glass ceramics nucleated with 5 wt Cr<sub>2</sub>O<sub>3</sub> and 5 wt Cr<sub>2</sub>O<sub>3</sub> 5 wt TiO<sub>2</sub>**  
ERKMEN Z. E. , ÇATAKLI E., ÖVEÇOĞLU L.  
EURO CERAMICS VII, PT 1-3, vol.2062, pp.863-866, 2008 (Journal Indexed in SSCI)
- VI. **Creep of Hard Porcelain During Firing**  
YILMAZ S., ERKMEN Z. E.  
American Ceramic Society Bulletin, vol.86, 2007 (Journal Indexed in SCI)
- VII. **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 (Journal Indexed in SCI)
- VIII. **Sintering of Synthetic Hydroxyapatite Zirconia Compacts**  
Genç Y., OKTAR F. N. , ERKMEN Z. E. , GÖLLER G., Derya T., Toykan D., Haybat H.  
Key Engineering Materials, vol.264-268, pp.2087-2090, 2004 (Journal Indexed in SCI Expanded)
- IX. **Sintering effect on mechanical properties of enamel derived and synthetic 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 (Journal Indexed in SCI Expanded)
- X. **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 (Journal Indexed in SCI)
- XI. **A Study on the Reaction of Yttria in Flowing Uranium Hexafluoride UF<sub>6</sub> Gas at 900 °C**  
ERKMEN Z. E.  
Journal of Nuclear Materials, vol.257, pp.152-161, 1999 (Journal Indexed in SCI)
- XII. **Effect of Al<sub>2</sub>O<sub>3</sub> additions on the thermal expansion behavior of aLi<sub>2</sub>O ZnO SiO<sub>2</sub> glass ceramic**  
TOPLAN N., ERKMEN Z. E. , DEMİRKESEN E.  
JOURNAL OF THE AMERICAN CERAMIC SOCIETY, vol.82, pp.3619-3621, 1999 (Journal Indexed in SSCI)
- XIII. **Performance of molybdenum with UF<sub>4</sub> 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 (Journal Indexed in SCI)
- XIV. **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 (Journal Indexed in SCI)

## 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 (Other Refereed National Journals)
- II. **Characteristics and Biocompatibility of the HA based Two Ternary Biocomposites**  
BULUT B., ERKMEN Z. E. , KAYALI E. S.  
Key Engineering Materials, vol.720, pp.130-140, 2017 (Refereed Journals of Other Institutions)

### III. Production and Characterization of Alumina Titania Biocomposite

ÇETİNER B. N. , ERKMEN Z. E.

AIP Conference Proceedings, vol.1653, 2015 (Non-Refreed Journal)

## 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.  
BİOCERAMİCS28, 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-ZrO<sub>2</sub> 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 alaşım ve ısı 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

## **Citations**

Total Citations (WOS):122

h-index (WOS):6

## **Non Academic Experience**

Public Research Center, Marmara University, Metallurgical and Material Engineering