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Education Information

Doctorate, Middle East Technical University, Faculty Of Engineering, Department Of Civil Engineering, Turkey 2002 - 2007
Postgraduate, Middle East Technical University, Faculty Of Engineering, Department Of Civil Engineering, Turkey 1999 - 2002
Undergraduate, Selcuk University, Faculty Of Engıneerıng, İnşaat Mühendisliği, Turkey 1994 - 1998

Dissertations

Doctorate, PROPERTIES AND HYDRATION OF CEMENTITIOUS SYSTEMS CONTAINING LOW, MODERATE AND HIGH AMOUNTS OF NATURAL ZEOLITES, Orta Doğu Teknik Üniversitesi, Mühendislik Fakültesi, İnşaat Mühendisliği, 2007
Postgraduate, EFFECTS OF HIGH VOLUME NATURAL POZZOLAN ADDITION ON THE PROPERTIES OF POZZOLANIC CEMENTS , Orta Doğu Teknik Üniversitesi, Mühendislik Fakültesi, İnşaat Mühendisliği, 2002

Research Areas

Civil Engineering, Building materials, Materials in Civil Engineering, Concrete Technology, Engineering and Technology

Academic Titles / Tasks

Professor, Abdullah Gul University, Mühendislik Fakültesi, İnşaat Mühendisliği, 2021 - Continues
Associate Professor, Abdullah Gul University, Mühendislik Fakültesi, İnşaat Mühendisliği, 2016 - 2021
Assistant Professor, Abdullah Gul University, Mühendislik Fakültesi, İnşaat Mühendisliği, 2012 - 2016
Assistant Professor, Niğde Üniversitesi, Mühendislik Fakültesi, İnşaat Mühendisliği, 2010 - 2012
Research Assistant PhD, Niğde Üniversitesi, Mühendislik Fakültesi, İnşaat Mühendisliği, 2008 - 2009
Research Assistant, Middle East Technical University, Faculty Of Engineering, İnşaat Mühendisliği, 1999 - 2008

Academic and Administrative Experience

Head of Department, Abdullah Gul University, Mühendislik Fakültesi, İnşaat Mühendisliği, 2014 - Continues

Deputy Head of Department, Nigde Omer Halisdemir University, Faculty Of Engıneerıng, Department Of Cıvıl Engıneerıng, 2010 - 2011

Courses

Materials Science, Undergraduate, 2022 - 2023
Nanotechnology in Sustainable Construction Materials, Postgraduate, 2021 - 2022
Materials of Construction, Undergraduate, 2021 - 2022
Sustainable Pavements, Postgraduate, 2021 - 2022
Eco-Efficient Concrete for Sustainable Infrastructure, Postgraduate, 2021 - 2022

Published journal articles indexed by SCI, SSCI, and AHCI

I. **Reaction kinetics and properties of pumice-based geopolymer systems cured at room temperature**
Küçükyıldırım E., Yorulmaz H., Durak U., Ilkentapar S., Uzal B., Karahan O., Atis C. D.
Construction and Building Materials, vol.409, 2023 (SCI-Expanded)

II. **Effect of duration and type of grinding on the particle size distribution and microstructure of natural pumice with low pozzolanic reactivity**
Taj K., İLCAN H., Teksin E., Argın G., Ardoğa M. K., UZAL B., ŞAHMARAN M.
Powder Technology, vol.428, 2023 (SCI-Expanded)

III. **Effect of Nano-SiO2 on Strength and Hydration Characteristics of Ternary Cementitious Systems**
YORULMAZ H., UZAL B., KARAHAN O., DURAK U., İLKENTAPAR S., ATİŞ C. D.
Arabian Journal for Science and Engineering, vol.48, no.10, pp.13649-13660, 2023 (SCI-Expanded)

IV. **Very high early strength calcium aluminate based binary and ternary cementitious systems: properties, hydration and microstructure**
Saydan M., Keskin Ü. S., UZAL B.
European Journal of Environmental and Civil Engineering, vol.27, no.16, pp.4756-4788, 2023 (SCI-Expanded)

V. **Green building envelope designs in different climate and seismic zones: Multi-objective ANN-based genetic algorithm**
Himmetoğlu S., DELİCE Y., KIZILKAYA AYDOĞAN E., UZAL B.
SUSTAINABLE ENERGY TECHNOLOGIES AND ASSESSMENTS, vol.53, 2022 (SCI-Expanded)

VI. **Role of inclusion size distribution of titanium dioxide on the nitrogen oxides reduction capability and microstructural characteristics of cementitious systems**
Bahşi E., Şahin O., İlcan H., UZAL B., Günal M. F., YILDIRIM G., ŞAHMARAN M.
Construction and Building Materials, vol.318, 2022 (SCI-Expanded)

VII. **Effect of characteristics of natural zeolites on their geopolymerization**
Özen S., UZAL B.
Case Studies in Construction Materials, vol.15, 2021 (SCI-Expanded)

VIII. **Performance of leonardite humic acid as a novel superplasticizer in Portland cement systems**
Ozuzun S., UZAL B.
JOURNAL OF BUILDING ENGINEERING, vol.42, 2021 (SCI-Expanded)

IX. **Effect of mineralogical composition of clinoptilolite-bearing tuffs on their performance as a natural pozzolan in cementitious systems**
Ozen S., UZAL B.
ADVANCES IN CONCRETE CONSTRUCTION, vol.12, no.1, pp.25-31, 2021 (SCI-Expanded)

X. **Enhancement of pozzolanic activity of calcined clays by limestone powder addition**
Argin G., Uzal B.
CONSTRUCTION AND BUILDING MATERIALS, vol.284, 2021 (SCI-Expanded)

XI. **A new parameter influencing the reaction kinetics and properties of fly ash based geopolymers: A**

pre-rest period before heat curing
DURAK U., İLKENTAPAR S., KARAHAN O., UZAL B., ATİŞ C. D.
JOURNAL OF BUILDING ENGINEERING, vol.35, 2021 (SCI-Expanded)

XII. **Influence of nano SiO2 and nano CaCO3 particles on strength, workability, and microstructural properties of fly ash-based geopolymer**
DURAK U., KARAHAN O., UZAL B., İLKENTAPAR S., ATİŞ C. D.
STRUCTURAL CONCRETE, vol.22, no.S1, 2021 (SCI-Expanded)

XIII. **Practical charts to identify the predominant clay mineral based on oxide composition of clayey soils**
Sivrikaya O., UZAL B., Ozturk Y. E.
APPLIED CLAY SCIENCE, vol.135, pp.532-537, 2017 (SCI-Expanded)

XIV. **Characteristics of calcined natural zeolites for use in high-performance pozzolan blended cements**
Kucukyildirim E., UZAL B.
CONSTRUCTION AND BUILDING MATERIALS, vol.73, pp.229-234, 2014 (SCI-Expanded)

XV. **Blended cements containing high volume of natural zeolites: Properties, hydration and paste microstructure**
Uzal B., TURANLI L.
CEMENT & CONCRETE COMPOSITES, vol.34, no.1, pp.101-109, 2012 (SCI-Expanded)

XVI. **Some characteristics of fibre-reinforced semi-lightweight concrete with unexpanded perlite**
Okuyucu D., TURANLI L., Uzal B., Tankut T.
MAGAZINE OF CONCRETE RESEARCH, vol.63, no.11, pp.837-846, 2011 (SCI-Expanded)

XVII. **Pozzolanic activity of clinoptilolite: A comparative study with silica fume, fly ash and a non-zeolitic natural pozzolan**
Uzal B., TURANLI L., YÜCEL H., GÖNCÜOĞLU M. C., Culfaz A.
CEMENT AND CONCRETE RESEARCH, vol.40, no.3, pp.398-404, 2010 (SCI-Expanded)

XVIII. **Evaluation of natural zeolite as a viscosity-modifying agent for cement-based grouts**
Sahmaran M., ÖZKAN N., KESKİN S., Uzal B., YAMAN İ. Ö., Erdem T. K.
CEMENT AND CONCRETE RESEARCH, vol.38, no.7, pp.930-937, 2008 (SCI-Expanded)

XIX. **High-volume natural pozzolan concrete for structural applications**
Uzal B., TURANI L., MEHTA P. K.
ACI MATERIALS JOURNAL, vol.104, no.5, pp.535-538, 2007 (SCI-Expanded)

XX. **Effect of large amounts of natural pozzolan addition on properties of blended cements**
Turanli L., Uzal B., Bektas F.
CEMENT AND CONCRETE RESEARCH, vol.35, no.6, pp.1106-1111, 2005 (SCI-Expanded)

XXI. **Effect of material characteristics on the properties of blended cements containing high volumes of natural pozzolans**
Turanli L., Uzal B., Bektas F.
CEMENT AND CONCRETE RESEARCH, vol.34, no.12, pp.2277-2282, 2004 (SCI-Expanded)

XXII. **Studies on blended cements containing a high volume of natural pozzolans**
Uzal B., Turanli L.
CEMENT AND CONCRETE RESEARCH, vol.33, no.11, pp.1777-1781, 2003 (SCI-Expanded)

Articles Published in Other Journals

I. **Effects of Dry Particle Coating with Nano- And Microparticles on Early Compressive Strength of Portland Cement Pastes**
Yorulmaz H., Özuzun S., Uzal B., İlkentapar S., Durak U., Karahan O., Atiş C. D.
Challenge Journal of Concrete Research Letters, vol.12, no.4, pp.125-130, 2021 (Peer-Reviewed Journal)

Books & Book Chapters

I. **Compatibility of Superplasticizers with Limestone-Metakaolin Blended Cementitious System**
Zaribaf B., UZAL B., Kurtis K.
in: Calcined Clays for Sustainable Concrete, Scrivener, Karen; Favier, Aurélie , Editor, Springer-Verlag , Amsterdam, pp.427-434, 2015

II. **Properties of concrete with high-volume pozzolans,**
UZAL B.
in: Eco-Efficient Concrete, Pacheco-Torgal, Jalali , Labrincha , Editor, Woodhead Publishing Limited , Londra, pp.138-152, 2013

Refereed Congress / Symposium Publications in Proceedings

I. **Hydration Kinetics and The Compressive Strength of Cementitious Systems Containing Pumice and Metakaolin**
İbrahim A. E., Yorulmaz H., Uzal B.
II. International Congress on Art and Design Research , Kayseri, Turkey, 20 - 21 June 2022, pp.1027-1035

II. **Effects of Dry Particle Coating With Nano-And Microparticles on Early Compressive Strength of Portland Cement Pastes**
Yorulmaz H., Özuzun S., Uzal B., İlkentapar S., Durak U., Karahan O., Atiş C. D.
INTERNATIONAL CONGRESS ON ART AND DESIGN RESEARCH AND EXHIBITION, Niğde, Turkey, 21 - 22 June 2021, pp.1540-1547

III. **KAPADOKYA YÖRESİ DOĞAL PUZOLANLARININKARAKTERİSTİK ÖZELLİKLERİ VE BETON DAYANIMINA ETKİSİ**
KORKANÇ M., Uzun O., UZAL B.
Uluslararası katılımlı Kapadokya Yerbilimleri Sempozyumu, Niğde, Turkey, 24 - 27 October 2018, vol.1, pp.189-194

IV. **The investigation of mechanical effects of nano sio2 particles for different sodium ion concentartions on fly ash based geopolmer mortar**
DURAK U., KARAHAN O., UZAL B., İLKENTAPAR S., ATİŞ C. D.
13th Internatioanl Congress on Advances in Civil Engineering, 12 - 14 September 2018

V. **Investigation of Mechanical Effect of Addition High-Amount Nano-SiO2 and Nano-CaCO3 to the Cement Systems Containing High Volume Natural Zeolite and Pumice**
İLKENTAPAR S., UZAL B., KARAHAN O., KORKANÇ M., ATİŞ C. D., DURAK U.
3. International Conference on Civil and Environmental Engineering, İzmir, Turkey, 24 - 27 April 2018, vol.1, pp.138

VI. **Effect of High Dosage Nanoparticles Addition on the Compressive and Flexural Strength on Cement Systems Containing a High Volume of Volcanic Tuff**
İLKENTAPAR S., UZAL B., KARAHAN O., KORKANÇ M., ATİŞ C. D., DURAK U.
3. International Conference on Civil and Environmental Engineering, İzmir, Turkey, 24 - 27 April 2018, vol.1, pp.137

VII. **The Investigation of Mechanical Effects of Nano Al2O3 Particles For Fly Ash Based Geopolymer Mortar**
DURAK U., KARAHAN O., UZAL B., İLKENTAPAR S., ATİŞ C. D.
Ist International Symposium on Innovative Approaches in Scientific Studies, Antalya, Turkey, 11 - 13 April 2018, vol.2, pp.10

VIII. **NANO SİO2 VE NANO CACO3'IN GEOPOLİMER HARÇLARIN DAYANIM ÖZELLİKLERİNE ETKİSİ**
DURAK U., KARAHAN O., UZAL B., İLKENTAPAR S., ATİŞ C. D.
2nd INTERNATIONAL MEDITERRANEAN SCIENCE AND ENGINEERING CONGRESS (IMSEC 2017), Adana, Turkey, 25 - 27 October 2017, pp.1679

IX. **Pozzolanic activity of natural zeolite-bearing tuffs from NW Turkish deposits and parameters**

affecting their reactivity
ÖZEN KARSLI S., UZAL B.
ICOCEE – CAPPADOCIA 2017, 8 - 10 May 2017

X. **Effect of Nanoparticle Addition on the Pore Size Distribution and Compressive Strength of High-Volume Natural Pozzolan Cementitious Systems**
İLKENTAPAR S., UZAL B., KARAHAN O., KORKANÇ M., ATİŞ C. D.
International Conference on Civil and Environmental Engineering (ICOCEE), 8 - 10 May 2017

XI. **DOĞAL PUZOLANLARIN KARAKTERİSTİK ÖZELLİKLERİVE KATKI MALZEMESİ OLARAK BETON DAYANIMINAETKİSİ**
Uzun O., KORKANÇ M., UZAL B.
Uluslararası Katılımlı 70. Türkiye Jeoloji Kurultayı, 10 - 14 April 2017

XII. **Compatibility of Superplasticizers with Limestone-Metakaolin Blended Cementitious System**
Zaribaf B. H., UZAL B., Kurtis K.
1st International Conference on Calcined Clays for Sustainable Concrete, Zürich, Switzerland, 23 - 25 June 2015, vol.10, pp.427-434

XIII. **Use of high volume natural pozzolan blended cements insuppressing alkali silica reaction**
Bektaş F., UZAL B., TURANLI L.
6th CANMET/ACI International Conference on Durability of Concrete, 1 - 07 June 2003

Supported Projects

Şahmaran M., Uzal B., TUBITAK Project, Yüksek Verimli Jeopolimer Bağlayıcılı Sistemler Için Mekano-Kimyasal Aktivasyon İşlemi Ile Düşük Aktiviteli Mineral Katkıların Mikroyapısal Özelliklerinin İyileştirilmesi, 2022 - 2025
Uzal B., İlkentapar S., Yılmaz E., TUBITAK Project, Doğal Hammadde Olarak Leonarditten Elde Edilen Eko-Verimli Süper Akışkanlaştırıcı Katkı Malzemelerinin Geliştirilmesi Ve Bunların Çimento Esaslı Sistemlerle Uyumluluğu, 2019 - 2022
Uzal B., Şahmaran M., Yıldırım G., TUBITAK Project, Fotokatalitik Etkiye Sahip Bütüncül Tasarım Yaklaşımı Ile Geliştirilmiş Yeni Nesil Çok Fonksiyonlu Çimento Esaslı Kompozitler, 2018 - 2021
Uzal B., Özen Karslı S., TUBITAK Project, Doğal Zeolitlerin Geopolimerik Aktivitelerini Etkileyen Parametrelerin Araştırılması, 2016 - 2018
UZAL B., Project Supported by Higher Education Institutions, AGÜ İnşaat Mühendisliği Bölümü Gelecek Tasarımı, 2015 - 2018
Uzal B., Karahan O., Korkanç M., TUBITAK Project, Nanotanecikler İçeren Yüksek Miktarda Doğal Puzolan Katkılı Çimentolar: Özellikler, Hidratasyon Ve Hamur İç Yapısı, 2013 - 2015
Uzal B., Turanlı L., Yücel H., Göncüoğlu M. C., TUBITAK Project, Doğal Zeolitlerin İnşaat Endüstrisinde Kullanımı, 2005 - 2007

Metrics

Publication: 39
Citation (WoS): 577
Citation (Scopus): 672
H-Index (WoS): 11
H-Index (Scopus): 10