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Personal Information

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Education Information

Doctorate, University Of California, Berkeley, Department Of Civil And Environmental Engineering, United States Of America 2005 - 2012

Post Graduate, Middle East Technical University, Faculty Of Engineering, Department Of Computer Engineering, Turkey 2003 - 2006

Post Graduate, Middle East Technical University, Faculty of Engineering, Department of Civil Engineering, Turkey 2001 - 2004

Under Graduate, Middle East Technical University, Faculty of Engineering, Department of Civil Engineering, Turkey 1997 - 2001

Dissertations

Doctorate, The study of disorder in amorphous silica, alkali silica reaction gel and fly ash, University Of California, Berkeley, Department Of Civil And Environmental Engineering, 2012

Post Graduate, Use of perlite as a pozzolanic addition in blended cement production, Middle East Technical University, Faculty of Engineering, Department of Civil Engineering, 2004

Research Areas

Building materials

Academic Titles / Tasks

Assistant Professor, Middle East Technical University, Faculty of Engineering, Department of Civil Engineering, 2018 - Continues

Assistant Professor, Middle East Technical University, Faculty of Engineering, Department of Civil Engineering, 2013 - 2018

Advising Theses

Akgül Ç., Dilek F. B. , Life Cycle Assessment (LCA) of Different Concrete Mixtures and an Application in a Green Building, Post Graduate, E.TÜKENMEZ(Student), 2019

Akgül Ç., Utilization of Fly Ash-Portland Cement Binary Systems to Control Alkali-Silica Reaction, Post Graduate, A.ZİYA(Student), 2019

Gürsel Dino I., Akgül Ç., Architectural Design for Climate Change Mitigation and Adaptation Strategies in Existing Buildings, Post Graduate, G.AKKÖSE(Student), 2019

AKGÜL Ç., Characterization of fly ashes from thermal power plants in Turkey, Post Graduate, M.TANGÜLER(Student), 2015

AKGÜL Ç., TURANLI L., A multi-scale approach to characterization of volcanic natural pozzolans, Post Graduate, A.SASSANI(Student), 2014

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

- **Experimental and theoretical study on elastic properties of crystalline alkali silicate hydrate**
Moon J., Kim S., Akgul Ç., Bae S., Clark S. M.
MATERIALS & DESIGN, vol.185, 2020 (Journal Indexed in SCI)
- **Effect of envelope insulation on building heating energy requirement, cost and carbon footprint from a life-cycle perspective**
ALTUN M., Akgul Ç., Akcamete A.
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.35, pp.147-163, 2020 (Journal Indexed in SCI)
- **Climate change impact assessment in residential buildings utilizing RCP4.5 and RCP8.5 scenarios**
Akgul Ç., Dino I.
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.35, pp.1665-1683, 2020 (Journal Indexed in SCI)
- **Impact of climate change on the existing residential building stock in Turkey: An analysis on energy use, greenhouse gas emissions and occupant comfort**
Gürsel Dino I., Akgül Ç.
RENEWABLE ENERGY, vol.141, pp.828-846, 2019 (Journal Indexed in SCI)
- **Safety assessment of limestone-based engineering structures to be partially flooded by dam water: A case study from northeastern Turkey**
GÖKÇEÖĞLU C., TÜRER A., Nefeslioglu H. A. , TÜRER D., Meral C.
ENGINEERING GEOLOGY, vol.209, pp.44-55, 2016 (Journal Indexed in SCI)
- **Spatial distribution of crystalline corrosion products formed during corrosion of stainless steel in concrete**
Serdar M., MERAL Ç., Kunz M., Bjegovic D., Wenk H., Monteiro P. J.
CEMENT AND CONCRETE RESEARCH, vol.71, pp.93-105, 2015 (Journal Indexed in SCI)
- **Ordering of water in opals with different microstructures**
Eckert J., Gourdon O., Jacob D. E. , MERAL Ç., Monteiro P. J. , Vogel S. C. , Wirth R., Wenk H.
EUROPEAN JOURNAL OF MINERALOGY, vol.27, pp.203-213, 2015 (Journal Indexed in SCI)
- **Mechanical properties, durability, and life-cycle assessment of self-consolidating concrete mixtures made with blended portland cements containing fly ash and limestone powder**
Çelik K., MERAL Ç., Gursel A. P. , Mehta P. K. , Horvath A., Monteiro P. J.
CEMENT & CONCRETE COMPOSITES, vol.56, pp.59-72, 2015 (Journal Indexed in SCI)
- **A comparative study of self-consolidating concretes incorporating high-volume natural pozzolan or high-volume fly ash**
Celik K., MERAL Ç., Mancio M., Mehta P. K. , Monteiro P. J. M.
CONSTRUCTION AND BUILDING MATERIALS, vol.67, pp.14-19, 2014 (Journal Indexed in SCI)
- **In situ 3D monitoring of corrosion on carbon steel and ferritic stainless steel embedded in cement paste**
Itty P., Serdar M., MERAL Ç., Parkinson D., MacDowell A. A. , Bjegovic D., Monteiro P. J.
CORROSION SCIENCE, vol.83, pp.409-418, 2014 (Journal Indexed in SCI)
- **Characterization of morphology and hydration products of high-volume fly ash paste by monochromatic scanning x-ray micro-diffraction (μ -SXRD)**
Bae S., MERAL Ç., Oh J., Moon J., Kunz M., Monteiro P. J.
CEMENT AND CONCRETE RESEARCH, vol.59, pp.155-164, 2014 (Journal Indexed in SCI)

- **Multiscale characterization of chemical-mechanical interactions between polymer fibers and cementitious matrix**
Hernandez-Cruz D., Hargis C. W. , Bae S., Itty P. A. , MERAL Ç., Dominowski J., Radler M. J. , Kilcoyne D. A. , Monteiro P. J. M.
CEMENT & CONCRETE COMPOSITES, vol.48, pp.9-18, 2014 (Journal Indexed in SCI)
- **High-volume natural volcanic pozzolan and limestone powder as partial replacements for portland cement in self-compacting and sustainable concrete**
Celik K., Jackson M., Mancio M., Meral Ç., Emwas A., Mehta P., Monteiro P.
CEMENT & CONCRETE COMPOSITES, vol.45, pp.136-147, 2014 (Journal Indexed in SCI)
- **Determination of the elastic properties of amorphous materials: Case study of alkali-silica reaction gel**
Moon J., Speziale S., MERAL Ç., KALKAN B., Clark S. M. , Monteiro P. J.
CEMENT AND CONCRETE RESEARCH, vol.54, pp.55-60, 2013 (Journal Indexed in SCI)
- **Unlocking the secrets of Al-tobermorite in Roman seawater concrete**
Jackson M. D. , Chae S. R. , Mulcahy S. R. , MERAL Ç., Taylor R., Li P., Emwas A., Moon J., Yoon S., Vola G., et al.
AMERICAN MINERALOGIST, vol.98, pp.1669-1687, 2013 (Journal Indexed in SCI)
- **Material and Elastic Properties of Al-Tobermorite in Ancient Roman Seawater Concrete**
Jackson M. D. , Moon J., Gotti E., Taylor R., Chae S. R. , Kunz M., Emwas A., MERAL Ç., Guttman P., Levitz P., et al.
JOURNAL OF THE AMERICAN CERAMIC SOCIETY, vol.96, pp.2598-2606, 2013 (Journal Indexed in SCI)
- **The study of disorder and nanocrystallinity in C-S-H, supplementary cementitious materials and geopolymers using pair distribution function analysis**
MERAL Ç., Benmore C., Monteiro P. J.
CEMENT AND CONCRETE RESEARCH, vol.41, pp.696-710, 2011 (Journal Indexed in SCI)
- **Use of perlite as a pozzolanic addition in producing blended cements**
Erdem T. K. , Meral Ç., Tokyay M., Erdogan T. Y.
CEMENT & CONCRETE COMPOSITES, vol.29, pp.13-21, 2007 (Journal Indexed in SCI)

Articles Published in Other Journals

- **Dış sıcaklık verisinin bina ısıtma enerji gereksinimine etkisinin ve TS 825 derece-gün bölge kümelenmesinin geçerliliğinin incelenmesi**
ALTUN M., AKÇAMETE GÜNGÖR A., AKGÜL Ç.
Pamukkale Üniversitesi Mühendislik Bilimleri Dergisi, 2020 (Refereed Journals of Other Institutions)

Refereed Congress / Symposium Publications in Proceedings

- **Climate Change Impact on Multi-Objective Optimization: A Case Study on Educational Buildings**
Akn Ş., Işeri O. K. , Akgül Ç., Erdoğan B., Gürsel Dino I.
The Symposium on Simulation for Architecture and Urban Design (SimAUD), Vienna, Austria, 23 - 25 May 2020
- **Energy consumption of a day-occupied building utilizing phase changing material incorporating gypsum boards**
Akgül Ç., Gürsel Dino İ., Şimşek B.
13th International Congress on Advances in Civil Engineering, İzmir, Turkey, 12 - 14 September 2018
- **Approaching Net-Zero Energy Building Through Utilization of Building-Integrated Photovoltaics for Three Cities in Turkey-Preliminary Calculations**
Uygun U., Akgül Ç., Gürsel Dino I., Aknoğlu B. G.
2018 International Conference on Photovoltaic Science and Technologies (PVCon), Ankara, Turkey, 4 - 06 July 2018
- **Investigation of Terrestrial Laser Scanning Reflectance Intensity and RGB Distributions to Assist**

Construction Material Identification

Hassan M. U. , Akçamete Güngör A., Meral Ç.

Lean and Computing in Construction Congress - Volume 1: Proceedings of the Joint Conference on Computing in Construction, Heraklion, Greece, 4 - 07 July 2017, pp.507-515

Çatalhöyük'ten alınan çeşitli sıva örneklerinin X-ışını kırınım analizi ile incelenmesi

Güzel A., Akgül Ç., Atalay M. Ü. , Demirci Ş.

T.C. Kültür ve Turizm Bakanlığı, 33. Uluslararası Kazı, Araştırma ve Arkeometri Sempozyumu, Bursa, Turkey, 22 - 26 May 2017, vol.1, pp.39-51

Performance of alkali-activated Turkish Fly Ashes at high temperatures

AKGÜL Ç.

253rd National Meeting of the American-Chemical-Society (ACS) on Advanced Materials, Technologies, Systems, and Processes, San-Francisco, Costa Rica, 2 - 06 April 2017, vol.253

Enerji Etkin ve Sürdürülebilir Binaların Fotovoltaik ve Yeşil Çatı Entegrasyonunda Çok Objektifli Karar Desteği

GÜRSEL DİNO İ., MERAL Ç.

4. Proje ve Yapım Yönetimi Kongresi, Anadolu Üniversitesi, Eskişehir, Turkey, 3 - 05 November 2016, pp.1278-1289

Net sıfır Enerji ve Su Tüketen Binaların Tasarımında Simülasyon ve Optimizasyon Araçlarının Önemi

MERAL Ç., GÜRSEL DİNO İ., Yener Celiker Z.

4. Proje ve Yapım Yönetimi Kongresi, Anadolu Üniversitesi, Eskişehir, Turkey, 3 - 05 November 2016, pp.1312-1323

Alkali Activation Performance of Fly Ashes from Thermal Power Plants Utilizing Güney Ege Lignite Coal Reserve

Seyedian Choubi S., Meral Ç., Tangüler Bayramtan M.

12th Advances in Civil Engineering, İstanbul, Turkey, 21 - 23 September 2016, pp.1-8

A Comparative Study of Alkali Activated Fly Ashes under Heat Exposure

Seyedian Choubi S., MERAL Ç., Akbas Y. S. , TANGÜLER BAYRAMTAN M.

Sustainable Construction Materials and Technologies 4, Las Vegas, United States Of America, 7 - 11 August 2016, pp.782-791

Türkiye de Uçucu Küllü Betonlar İçin Yaşam Döngüsü Analizi

Tangüler M., Yener P. A. , Meral Ç.

9.Ulusal Beton Kongresi, Antalya, Antalya, Turkey, 16 - 18 April 2015

Life Cycle Assessment of a Basic External Drywall System in Turkey

AKGÜL Ç., Paşaoğlu O., Özçelik G.

11th International Congress on Advances in Civil Engineering - ACE 2014, At Istanbul, Turkey, İstanbul, Turkey, 22 - 24 October 2014

Yapı Kimyasallarına Çevresel Çerçeveden Bakış

Özçelik G., Gürsel A. P. , AKGÜL Ç.

Yapılarda Kimyasal Katkılar 4. Sempozyumu ve Sergisi - Chemical Admixtures on Structures 4th Symposium and Exhibition, Ankara, Turkey, 24 - 25 October 2013, pp.179-197

Effect of ground perlite incorporation on the performance of blended cements

Erdem T. K. , Meral C., TOKYAY M., ERDOĞAN T. Y.

International Conference on Sustainable Construction Materials and Technologies, Coventry, United Kingdom, 11 - 13 June 2007, pp.279-285

Supported Projects

AKGÜL Ç., SEYEDIAN CHOUBI S., Project Supported by Higher Education Institutions, FARKLI FOZZOLLAR İÇEREN KENDİNDEN YERLEŞEN BETONLARIN YAŞAM DÖNGÜSÜ ANALİZİ, 2018 - 2020

AKGÜL Ç., SEYEDIAN CHOUBI S., ÇELEN A. Z. , Project Supported by Higher Education Institutions, Türkiye uçucu

küllerinin farklı incelik aralıklarına ayrılıp karakterize edilmesi, 2018 - 2019

AKGÜL Ç., ATALAY M. Ü. , GÜZEL A., Project Supported by Higher Education Institutions, Neolitik dönem Çatalhöyük'ten (Çumra-Konya) çıkarılan bazı sıva parçaları üzerine arkeometrik çalışmalar, 2017 - 2017

GÜRSEL DİNO İ., MERAL Ç., Project Supported by Higher Education Institutions, İklim Değişikliği Bağlamında Bina Tasarım Desteği Geliştirilmesi, 2017 - 2017

AKGÜL Ç., SEYEDIAN CHOUBI S., TANGÜLER BAYRAMTAN M., Project Supported by Higher Education Institutions, Çimento-Uçucu Kül İkilili Sistemlerinin Performans Değerlendirmesi, 2014 - 2016

Citations

Total Citations (WOS):673

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