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Education Information

Post Doctorate, Columbia University in the City of New York, The Fu Foundation School Of Engineering And Applied Science, The Department of Civil Engineering and Engineering Mechanics, United States Of America 2019 - 2020

Doctorate, Boğaziçi Üniversitesi, Mühendislik Fakültesi, İnşaat Mühendisliği, Turkey 2012 - 2017

Postgraduate, Boğaziçi Üniversitesi, Mühendislik Fakültesi, İnşaat Mühendisliği, Turkey 2009 - 2012

Undergraduate, Yıldız Teknik Üniversitesi, Faculty of Construction, İnşaat Mühendisliği, Turkey 2007 - 2009

Academic Titles / Tasks

Research Assistant PhD, Yıldız Technical University, Faculty of Construction, Civil Engineering Department, 2018 - Continues

Research Assistant, Bogazici University, Faculty Of Engineering, Department Of Civil Engineering, 2010 - 2018

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

- I. **Influence of aqueous carbonate species on hydration and carbonation of reactive MgO cement**
Ma S., Akca A. H. , Esposito D., Kawashima S.
JOURNAL OF CO2 UTILIZATION, vol.41, 2020 (Journal Indexed in SCI)
- II. **Post-fire mechanical behavior and recovery of structural reinforced concrete beams**
AKCA A. H. , Ozyurt N.
CONSTRUCTION AND BUILDING MATERIALS, vol.253, 2020 (Journal Indexed in SCI)
- III. **Fracture response of fiber-reinforced sodium carbonate activated slag mortars**
Aktürk B., Akca A. H. , Kızılkant A. B.
Construction And Building Materials, vol.241, pp.1-13, 2020 (Journal Indexed in SCI)
- IV. **Deterioration and recovery of FRC after high temperature exposure**
Akca A. H. , Ozyurt N.
CEMENT & CONCRETE COMPOSITES, vol.93, pp.260-273, 2018 (Journal Indexed in SCI)
- V. **Effects of re-curing on microstructure of concrete after high temperature exposure**
Akca A. H. , Ozyurt N.
CONSTRUCTION AND BUILDING MATERIALS, vol.168, pp.431-441, 2018 (Journal Indexed in SCI)
- VI. **Effects of re-curing on residual mechanical properties of concrete after high temperature exposure**
Akca A. H. , Ozyurt N.
CONSTRUCTION AND BUILDING MATERIALS, vol.159, pp.540-552, 2018 (Journal Indexed in SCI)
- VII. **Mechanical properties and fracture behavior of basalt and glass fiber reinforced concrete: An experimental study**
KIZILKANAT A. B. , KABAY N., Akyuncu V., Chowdhury S., Akca A. H.
CONSTRUCTION AND BUILDING MATERIALS, vol.100, pp.218-224, 2015 (Journal Indexed in SCI)

VIII. High performance concrete under elevated temperatures

Akca A. H. , Zihnioglu N. O.

CONSTRUCTION AND BUILDING MATERIALS, vol.44, pp.317-328, 2013 (Journal Indexed in SCI)

Articles Published in Other Journals

- I. **Carbon-Negative Cement Manufacturing from Seawater-Derived Magnesium Feedstocks**
Badjatya P., Akca A. H. , Fraga Alvarez D., Chang B., Ma S., Pang X., Wang E., Esposito D., Kawashima S., Van Hinsberg Q.
ChemRxiv, vol.1, pp.1-39, 2021 (Non-Refreed Journal)
- II. **Análisis de imagen sobre concreto desintegrado en la etapa de postcalentamiento**
Akca A. H. , Özyurt N.
Revista ALCONPAT, vol.10, no.2, pp.219-229, 2020 (Refereed Journals of Other Institutions)
- III. **Mineral Katkılı Lifli Betonlarda Yüksek Sıcaklık Etkisiyle Oluşan Yüzey Çatlakları ve Dayanım Kayıpları**
Akca A. H. , Özyurt N.
Hazır Beton Dergisi, vol.154, pp.65-71, 2019 (National Conference Book)
- IV. **Effects of Post-fire curing on the properties of HPCC**
Özyurt Zihnioglu N., Akca A. H.
Cementürk, vol.30, pp.56-63, 2013 (National Non-Refereed Journal)

Refereed Congress / Symposium Publications in Proceedings

- I. **Evaluation of 3D Printability of Concrete Incorporating Recycled Aggregate Powder and PCM**
Akca A. H. , Dinç Şengönül B., Ömür T., Üstündağ C. B. , Kabay N., Çakır Ö., Yüzer N.
14th International Congress on Advances in Civil Engineering (ACE2020-21), İstanbul, Turkey, 6 - 08 September 2021, pp.282-289
- II. **Microstructural and Compressive Strength Development of Portland Cement Paste Incorporating Magnesium Oxide after Concentrated Carbon Dioxide Curing**
Akca A. H. , Ma S., Kawashima S.
14th International Congress on Advances in Civil Engineering (ACE2020-21), İstanbul, Turkey, 6 - 08 September 2021, pp.74-80
- III. **Performance of compacted Mg(OH)₂ after carbonation**
Akca A. H. , Ma S., Esposito D., Kawashima S.
INTERNATIONAL CONFERENCE ON "CEMENT - BASED MATERIALS TAILORED FOR A SUSTAINABLE FUTURE", İstanbul, Turkey, 27 - 29 May 2021, pp.94-99
- IV. **Use of seawater as the mix water for concrete**
Aydoğan O. G. , Bilici S., Akca A. H. , Balcı E., Özyurt N.
INTERNATIONAL CONFERENCE ON "CEMENT - BASED MATERIALS TAILORED FOR A SUSTAINABLE FUTURE", İstanbul, Turkey, 27 - 29 May 2021, pp.311-318
- V. **Image Analysis on Disintegrated Concrete at the Post Heating Stage**
AKCA A. H. , ÖZYURT ZİHNİOĞLU N.
3rd R.N. Raikar Memorial International Conference and Gettu-Kodur International Symposium on Advances in Science and Technology of Concrete, 14 - 15 December 2018
- VI. **Recovery of Reinforced Concrete Beams after ISO-834 Fire Exposure**
AKCA A. H. , ÖZYURT ZİHNİOĞLU N.
13th international congress on advances in civil engineering, İzmir, Turkey, 12 September 2018, pp.500-508
- VII. **Mineral Katkılı Lifli Betonlarda Yüksek Sıcaklık Etkisiyle Oluşan Yüzey Çatlakları ve Dayanım Kayıpları**

AKCA A. H. , ÖZYURT ZİHNİOĞLU N.

Beton 2017 Hazır Beton Kongresi, Turkey, 13 - 14 April 2017

VIII. **Changes in Microstructure and Recovery of Concrete Incorporating Granulated Blast Furnace Slag after High Temperature Exposure**

AKCA A. H. , ÖZYURT ZİHNİOĞLU N.

12th International Congress on Advances in Civil Engineering, İstanbul, Turkey, 21 - 23 September 2016

IX. **Mechanical Behavior and Recovery of FRC after High Temperature Exposure**

AKCA A. H. , ÖZYURT ZİHNİOĞLU N.

The 8th International Conference on Concrete under Severe Conditions Environment and Loading, Lecco, Italy, 12 - 14 September 2016, vol.711

X. **Effects of elevated temperatures on the microstructure and residual strength of HPSCC**

AKCA A. H. , ÖZYURT ZİHNİOĞLU N.

5th North American Conference on the Design and Use of Self-Consolidating Concrete, Chicago, United States Of America, 12 - 14 May 2013

XI. **Donatı Korozyonu İçin Verilen Sınır Değerlerin Yalın ve Çelik Lifli Betonlarda Çatlak Oluşumu Açısından Değerlendirilmesi**

NİŞ A., PEHLİVAN A. O. , AKCA A. H. , ÖZYURT ZİHNİOĞLU N., SÖYLEV T. A. , ÖZTURAN T.

8th National Congress on Concrete, İzmir, Turkey, 5 - 07 October 2011

Supported Projects

ULUKAYA S., AKCA A. H. , BAYRAM M., Project Supported by Higher Education Institutions, Bor Lif Kullanımının Çimento Harçlarının Mekanik Özelliklerine Etkisi, 2021 - Continues

Akca A. H. , Aydoğan O. G. , Bilici S., Özyurt N., Project Supported by Higher Education Institutions, Sürdürülebilir Bir Gelecek İçin Deniz Suyu Kullanılarak Üretilmiş Sentetik Lifli Betonlar , 2018 - 2021

Akca A. H. , Özyurt Zihnioğlu N., Project Supported by Higher Education Institutions, Yüksek sıcaklıklara maruz betonlarda kullanılan malzeme ve uygulanan yangın sonrası kürün iyileşme süreci üzerindeki etkilerinin incelenmesi, 2014 - 2016

Akca A. H. , Özyurt Zihnioğlu N., Project Supported by Higher Education Institutions, Yangın dayanımı arttırılmış yüksek dayanımlı çimento esaslı malzeme tasarımı, 2011 - 2011

Patent

Kawashima S., Esposito D. V. , Ma S., Akca A. H. , METHODS AND SYSTEMS FOR PROVIDING IMPROVED CEMENT INCORPORATING METAL OXIDES AND HYDROXIDES, Patent, CHAPTER C Chemistry; Metallurgy, The Invention Registration Number: US 20210188711 A1 , Initial Registration, 2021

Scientific Refereeing

CONSTRUCTION AND BUILDING MATERIALS, Journal Indexed in SCI-E, December 2020

CONSTRUCTION AND BUILDING MATERIALS, Journal Indexed in SCI-E, July 2020

INTERNATIONAL JOURNAL OF CONCRETE STRUCTURES AND MATERIALS, Journal Indexed in SCI-E, April 2020

Construction And Building Materials, Journal Indexed in SCI-E, February 2020

Construction And Building Materials, Journal Indexed in SCI-E, November 2019

CEMENT AND CONCRETE RESEARCH, SCI Journal, March 2019

CONSTRUCTION AND BUILDING MATERIALS, Journal Indexed in SCI-E, January 2019

CONSTRUCTION AND BUILDING MATERIALS, Journal Indexed in SCI-E, December 2018

CONSTRUCTION AND BUILDING MATERIALS, Journal Indexed in SCI-E, October 2018

Citations

Total Citations (WOS):248

h-index (WOS):5

Scholarships

2219 Yurt Dışı Doktora Sonrası Araştırma Burs Programı, TÜBİTAK, 2018 - 2020

2211-E Doğrudan Yurt İçi Doktora Burs Programı, TÜBİTAK, 2012 - 2017

2228-A Son Sınıf Lisans Öğrencileri için Lisansüstü Burs Programı, TÜBİTAK, 2009 - 2011