

Assoc. Prof. OKAY ALTUN

Personal Information

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International Researcher IDs

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Education Information

Doctorate, Hacettepe University, Fen Bilimleri, Maden Müh, Turkey 2007 - 2013

Postgraduate, Hacettepe University, Fen Bilimleri, Maden Müh, Turkey 2004 - 2007

Undergraduate, Hacettepe University, Mühendislik Fakültesi, Maden Müh., Turkey 1999 - 2004

Foreign Languages

English, C2 Mastery

Research Areas

Mining Engineering and Technology, Ore-Dressing, Communiton-Sizing-Classification, Engineering and Technology

Academic Titles / Tasks

Associate Professor, Hacettepe University, Mühendislik Fakültesi, Maden Mühendisliği Bölümü, 2021 - Continues

Assistant Professor, Hacettepe University, Mühendislik Fakültesi, Maden Mühendisliği Bölümü, 2014 - 2021

Research Assistant, Hacettepe University, Mühendislik Fakültesi, Maden Mühendisliği Bölümü, 2005 - 2013

Advising Theses

Altun O., ÇİMENTO ÖĞÜTME DEVRELERİNDE FARKLI AKIŞ KOLLARINDA İNCE ÖĞÜTMENİN KULLANILABİLİRLİĞİNİN İNCELENMESİ, Postgraduate, C.ERDEM(Student), 2022

Altun O., Farklı öğütme mekanizmalarının bileşen davranımı üzerindeki etkilerinin araştırılması, Postgraduate, O.ŞAHİN(Student), 2021

Altun O., THE IMPACTS OF GRINDING BALL SIZE DISTRIBUTION ON ENERGY CONSUMPTION, PRODUCT SIZE AND MEDIA WEAR WITHIN THE DRY STIRRED MILL, Postgraduate, T.SERT(Student), 2021

Altun O., Bir bakır-çinko öğütme ve zenginleştirme tesisinde çoklu bileşenli öğütme model yapısının geliştirilmesi, Postgraduate, İ.GÖKTAŞ(Student), 2020

Altun O., Kül sınıflandırma tesisinde farklı akış kolları için çimento ve beton kalite değerlendirmesinin yapılması, Postgraduate, E.SARP(Student), 2019

Altun O., Çimento öğütme uygulamalarında bilya ve malzeme özelliklerinin bilya aşınma sonuçları üzerindeki etkilerinin

incelenmesi, Postgraduate, S.SAİT(Student), 2018

ALTUN O., Çoklu bileşenli havalı sınıflandırıcı modelinin geliştirilmesinde malzemelerin yoğunluk ve akışkanlık özelliklerinin incelenmesi, Postgraduate, Ö.DARILMAZ(Student), 2017

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Assessment of different energy-based breakage distribution functions in population balance model of an industrial scale continuously operated wet stirred media mill**
Altun O., Toprak A., Altun D., Bilgili E.
MINERALS ENGINEERING, vol.218, 2024 (SCI-Expanded)
- II. **Performance comparison of laboratory scale air classifier and hydrocyclone at the same target size**
Tipici V., Toprak A., ALTUN O.
MINERALS ENGINEERING, 2024 (SCI-Expanded)
- III. **PBM of an industrial-scale vertical wet stirred media mill (HIGMill): Assessment of back-calculation and hybrid methods**
Bilgili E., Toprak A., ALTUN D., ALTUN O.
Powder Technology, vol.440, 2024 (SCI-Expanded)
- IV. **Scale-up of Vertical Wet Stirred Media Mill (HIGmill) via Signature Plots, Stress Analyses and Energy Equations**
ALTUN O., Sert T., ALTUN D., Toprak A., Kwade A.
Minerals Engineering, vol.205, 2024 (SCI-Expanded)
- V. **Element based ball mill and hydrocyclone modelling for a copper ore grinding circuit**
Göktaş I., Altun O., Toprak N. A., Altun D.
Minerals Engineering, vol.198, 2023 (SCI-Expanded)
- VI. **Performance Comparison of the Vertical and Horizontal Oriented Stirred Mill: Pilot Scale IsaMill vs Full-Scale HIGMill**
Can M., Altun O.
MINERALS, vol.13, no.315, pp.1-13, 2023 (SCI-Expanded)
- VII. **Understanding HIGMill operation at copper regrind application; operating parameters, wear and mineral liberation**
ALTUN O., Darılmaz Ö., Karahan E., Sert T., ALTUN D., Toprak A., Hür A.
Minerals Engineering, vol.191, 2023 (SCI-Expanded)
- VIII. **Air classification performances of the components within the varied feed blends**
ALTUN O.
POWDER TECHNOLOGY, vol.399, 2022 (SCI-Expanded)
- IX. **Estimation of mineral liberation distribution functions to be used in modelling of impact and attrition milling**
Altun O., Altun D.
Minerals Engineering, no.107236, pp.1-13, 2021 (SCI-Expanded)
- X. **Considering hydrocyclone operation for tailings dewatering purpose and its effects on product specifications of paste backfill operations**
Toprak N. A., Altun O.
Minerals Engineering, no.107176, pp.1-11, 2021 (SCI-Expanded)
- XI. **Effects of impact and attrition mechanisms on size distribution and liberation characteristics of the components**
Altun O., SAHİN O., Toprak A.
Advanced Powder Technology, vol.32, no.10, pp.3550-3563, 2021 (SCI-Expanded)
- XII. **Impacts of process and design conditions of dry stirred milling on the shape of product size distribution**
ALTUN O., Prziwara P., Breitung-Faes S., Kwade A.

- MINERALS ENGINEERING, vol.163, 2021 (SCI-Expanded)
- XIII. **The impacts of dry stirred milling application on quality and production rate of the cement grinding circuits**
ALTUN O., Benzer H., Karahan E., Zencirci S., Toprak A.
MINERALS ENGINEERING, vol.155, 2020 (SCI-Expanded)
- XIV. **Developing a methodology to model and predict the grinding performance of the dry stirred mill**
ALTUN D., ALTUN O., Zencirci S.
MINERALS ENGINEERING, vol.139, 2019 (SCI-Expanded)
- XV. **The use of impact bed breakage procedure in model fitting of dry stirred mill**
ALTUN D., ALTUN O., Benzer H.
PARTICULATE SCIENCE AND TECHNOLOGY, 2019 (SCI-Expanded)
- XVI. **Energy and cement quality optimization of a cement grinding circuit**
ALTUN O.
ADVANCED POWDER TECHNOLOGY, vol.29, no.7, pp.1713-1723, 2018 (SCI-Expanded)
- XVII. **Development of a preliminary media wear measurement test procedure for cement ball milling applications**
ÇOLAK S. S., ALTUN O., BENZER A. H., GENCER Z., KOÇAK H.
POWDER TECHNOLOGY, vol.325, pp.678-686, 2018 (SCI-Expanded)
- XVIII. **The effects of grinding aids on modelling of air classification of cement**
TOPRAK N. A., ALTUN O., BENZER A. H.
CONSTRUCTION AND BUILDING MATERIALS, vol.160, pp.564-573, 2018 (SCI-Expanded)
- XIX. **Improving early-age strength of fly ash cement and increasing fly ash content by inter-grinding**
ZENCİRCİ S., ALTUN O., BENZER A. H., ONAT L., NEMLİ O.
ZKG INTERNATIONAL, vol.71, no.10, pp.52-63, 2018 (SCI-Expanded)
- XX. **Modelling of component behaviour around a cement grinding circuit**
Altun D., Benzer A. H., Altun O.
ZKG INTERNATIONAL, vol.70, no.10, pp.58-67, 2017 (SCI-Expanded)
- XXI. **Simulation aided flow sheet optimization of a cement grinding circuit by considering the quality measurements**
ALTUN O.
POWDER TECHNOLOGY, vol.301, pp.1242-1251, 2016 (SCI-Expanded)
- XXII. **Multi component modelling of an air classifier**
ALTUN O., Toprak A., Benzer H., DARILMAZ O.
MINERALS ENGINEERING, vol.93, pp.50-56, 2016 (SCI-Expanded)
- XXIII. **Utilization of grinding aids in dry horizontal stirred milling**
ALTUN O., Benzer H., Toprak A., Enderle U.
POWDER TECHNOLOGY, vol.286, pp.610-615, 2015 (SCI-Expanded)
- XXIV. **Copper ore grinding in a mobile vertical roller mill pilot plant**
ALTUN D., Gerold C., Benzer H., ALTUN O., Aydogan N.
INTERNATIONAL JOURNAL OF MINERAL PROCESSING, vol.136, pp.32-36, 2015 (SCI-Expanded)
- XXV. **The effects of chamber diameter and stirrer design on dry horizontal stirred mill performance**
ALTUN O., Benzer H., Enderle U.
MINERALS ENGINEERING, vol.69, pp.24-28, 2014 (SCI-Expanded)
- XXVI. **The influences and selection of grinding chemicals in cement grinding circuits**
TOPRAK N. A., ALTUN O., Aydogan N., Benzer H.
CONSTRUCTION AND BUILDING MATERIALS, vol.68, pp.199-205, 2014 (SCI-Expanded)
- XXVII. **Selection and mathematical modelling of high efficiency air classifiers**
ALTUN O., BENZER H.
POWDER TECHNOLOGY, vol.264, pp.1-8, 2014 (SCI-Expanded)
- XXVIII. **Effects of operating parameters on the efficiency of dry stirred milling**
ALTUN O., Benzer H., Enderle U.

MINERALS ENGINEERING, pp.58-66, 2013 (SCI-Expanded)

- XXIX. **Comparison of open and closed circuit HPGR application on dry grinding circuit performance**
ALTUN O., BENZER H., DÜNDAR H., AYDOĞAN N. A.
MINERALS ENGINEERING, vol.24, pp.267-275, 2011 (SCI-Expanded)

Articles Published in Other Journals

- I. **The impacts of grinding ball size distribution on energy consumption, product size and media wear within the dry stirred mill**
Sert T., Altun O.
Scientific Mining Journal, vol.60, no.4, pp.181-189, 2021 (Scopus)
- II. **FARKLI KIRILMA TEST PROTOKOLLERİNİN KAMARALI BİLYALI DEĞİRMEN MODELLEMESİNDE KULLANIMI**
ALTUN D., ALTUN O.
Bilimsel Madencilik Dergisi, vol.58, pp.257-266, 2019 (Scopus)
- III. **BİR BAKIR/ÇİNKO CEVHERİ ÖĞÜTME DEVRESİNDE ENERJİ OPTİMİZASYONUNUN SAĞLANMASI**
ALTUN O.
Ömer Halisdemir Üniversitesi Mühendislik Bilimleri Dergisi, vol.7, no.1, pp.284-296, 2018 (Peer-Reviewed Journal)
- IV. **HPGR simulation from piston-die tests with an itabirite ore**
BENZER A. H., DÜNDAR H., ALTUN O., TAVARES L. M., POWELL M., MAZZINGHY D. B., RUSSO J. F.
REM - International Engineering Journal, vol.70, no.1, pp.99-107, 2017 (Peer-Reviewed Journal)

Refereed Congress / Symposium Publications in Proceedings

- I. **SIMULATION OF PILOT SCALE JAW CRUSHER USING DEM**
ALTUN D., ALTUN O., TOPRAK N. A., TIPICI C. V., AKIN Ö., DAĞTARLA Z., SAVAŞ E.
IMCET 2023 28th International Mining Congress and Exhibition of Türkiye, Antalya, Turkey, 28 November 2023
- II. **ASSESSMENT OF MICROHYDRODYNAMIC AND POPULATION BALANCE MODELING OF WET STIRRED MEDIA MILLS**
BİLGİLİ E., ALTUN O., TOPRAK N. A., ALTUN D.
IMCET 2023 28th International Mining Congress and Exhibition of Türkiye, Antalya, Turkey, 28 November 2023
- III. **ENERGY OPTIMIZATION OF A GRINDING CIRCUIT AT A COPPER MINE BİR BAKIR MADENİNDE ÖĞÜTME DEVRESİNİN ENERJİ OPTİMİZASYONU**
SERT T., ALTUN O., TOPRAK N. A., ALTUN D., DARILMAZ Ö.
27th International Mining Congress and Exhibition of Turkey, IMCET 2022, Antalya, Turkey, 22 - 25 March 2022, pp.324-334
- IV. **HIG MILL PERFORMANCE AT COPPER FLOTATION CIRCUIT REGRIND APPLICATION BAKIR FLOTASYON DEVRESİ REGRIND UYGULAMASINDA HIG DEĞİRMEN PERFORMANSI**
ALTUN O., DARILMAZ Ö., HÜR A., KARAHAN C., GÖLLER Z., SERT T., ALTUN D., TOPRAK N. A.
27th International Mining Congress and Exhibition of Turkey, IMCET 2022, Antalya, Turkey, 22 - 25 March 2022, pp.409-416
- V. **TEKTELLİ KESME PARAMETRELERİNİN ÇAMUR TANE BOYUNA ETKİLERİ**
YILMAZKAYA E., ALTUN O., ÖZÇELİK Y.
Türkiye 26. Uluslararası Madencilik Kongresi ve Sergisi'ne (IMCET 2019), 16 - 19 April 2019
- VI. **PROPOSED FLOWSHEET DESIGN FOR A CEMENT GRINDING CIRCUIT BY CONSIDERING FINE GRINDING TECHNOLOGY**
ALTUN O., KARAHAN C. E., ZENCİRCİ E. S., TOPRAK N. A., BENZER A. H.
IMCET 2019, 15 - 19 April 2019
- VII. **VARIATION IN THE WEAR CHARACTERISTICS AND THE GRINDING PERFORMANCE OF DIFFERENT**

BALLS

Karahan C. E., Sert T., ALTUN O.
IMCET 2019, 15 - 19 April 2019

- VIII. **The impacts of fine grinding around different streams of cement grinding circuit**
ALTUN O., Sert T., Zencirci E. S., TOPRAK N. A., BENZER A. H.
IMPS 2018, 23 - 25 October 2018
- IX. **The Impacts of Fine Grinding Around Different Streams of Cement Grinding Circuits**
ALTUN O., Sert T., Zencirci S. E., TOPRAK N. A., BENZER A. H.
IMPC 2018 Turkey, 23 - 25 October 2018
- X. **Effects of Bed Dimensions on Fine Particle Breakage**
ALTUN D., BENZER A. H., ALTUN O.
Comminution 18, Cape-Town, South Africa, 16 - 19 April 2018
- XI. **Fine grinding of fly ash and its effect on cement recipe**
Zencirci S., ALTUN O., BENZER A. H., Onat L., Nemli O.
ESCC 2017 Uluslararası öğütme ve sınıflandırma kongresi, 11 - 14 September 2017
- XII. **Development of a preliminary media wear test procedure for cement ball milling applications**
ALTUN O., Çolak S., BENZER A. H., Gencer Z., Koçak H.
ESCC'2017 Uluslararası öğütme ve sınıflandırma sempozyumu, 11 - 14 September 2017
- XIII. **A Comparative Dry Grinding Study Of A Natural And A Heated Vermiculite**
EHSANİ İ., TOPRAK N. A., ALTUN O., ÜÇYILDIZ A., OBUT A.
3.International Porous And Powder Materials Symposium And Exhibition, Turkey, 12 - 15 September 2017, pp.6-11
- XIV. **Performance Evaluation of Vertical Roller Mill in Cement Grinding: Case Study ESCH Cement Plant**
ALTUN D., AYDOĞAN N. A., ALTUN O., BENZER A. H.
15. EUROPEAN SYMPOSIUM ON COMMUNITION CLASSIFICATION, İzmir, Turkey, 11 - 14 September 2017
- XV. **Application of HPGR, VRM and dry classification in mineral processing**
DÜNDAR H., BENZER A. H., AYDOĞAN N. A., ALTUN O., ALTUN D., TOPRAK N. A.
International Congress on Mineral Comminution 2017, Peru, Lima, Peru, 11 - 13 May 2017
- XVI. **Media wear measurements in a laboratory scale ball mill**
ÇOLAK S., ALTUN O., TOPRAK N. A., BENZER A. H.
15th International Mineral Processing Symposium, 19 - 21 October 2016
- XVII. **Possible applications of dry stirred milling in a cement grinding circuit**
ALTUN O., BENZER A. H., Udo E.
8th International Symposium Fine Grinding and Dispersing, 13 - 14 October 2016
- XVIII. **Closed circuiting the HPGRs air classification their operations and efficiencies**
ALTUN O., BENZER A. H., DÜNDAR H.
Comminution'xx16, 10 - 14 April 2016
- XIX. **Optimization Alternatives in Cement Grinding Circuits**
TOPRAK N. A., BENZER A. H., AYDOĞAN N. A., ALTUN O., DÜNDAR H., ÖZCAN Ö., ALTUN D.
IMPS, 15 - 17 October 2014
- XX. **Optimization alternatives in cement grinding circuits**
TOPRAK N. A., BENZER A. H., AYDOĞAN N. A., ALTUN O., DÜNDAR H., ÖZCAN Ö., ALTUN D.
14th International Mineral Processing Symposium, 15 - 17 October 2014
- XXI. **Simulation aided energy optimization of a Cu Zn ore grinding circuit**
ALTUN O., BENZER A. H., AYDOĞAN N. A., TOPRAK N. A., Arslan A., Nihan S.
14th International Mineral Processing Symposium, 15 - 17 October 2014
- XXII. **Improving material transportation of dry horizontal stirred mill in cement grinding**
ALTUN O., BENZER A. H., Udo E.
ESCC 2013, 9 - 12 September 2013
- XXIII. **Investigation of producing cement with lower cost and higher quality by chemicals used in grinding operation**

TOPRAK N. A., ALTUN O., AYDOĞAN N. A., BENZER A. H.

12th International mineral processing symposium, 6 - 08 October 2010

XXIV. Decreasing specific energy consumption of a cement plant by adjusting the separator parameters

ALTUN O., BENZER A. H.

12th International mineral processing symposium, 6 - 08 October 2010

XXV. Comparison of wet and dry centrifugal based classification efficiency

BENZER A. H., Mainza A., ALTUN O.

Comminution 2010, Cape-Town, South Africa, 13 - 16 April 2010

XXVI. Modelling of the high efficiency air classifiers

ALTUN O., BENZER A. H.

SAIMM Mineral Processing, 7 - 08 August 2008

Supported Projects

Can İ. B., Altun O., TUBITAK Project, Bir bakır cevherinin Yarı Otojen Değirmen (SAG) uygulaması için enerji harcaması ve kırılma hızı, 2023 - 2024

ALTUN O., Sert T., Project Supported by Higher Education Institutions, Kuru karıştırmalı değirmende bilya boyu dağılımının enerji, ürün tane boyu ve şekli üzerindeki etkilerinin araştırılması, 2019 - 2021

ALTUN O., Project Supported by Higher Education Institutions, 16th ICC International Clay Conference, 2017 - 2019

ALTUN O., BENZER A. H., Project Supported by Higher Education Institutions, 8 Uluslararası İnce Öğütme ve Dağıtma Sempozyumu, 2016 - 2017

YILMAZKAYA E., ÖZÇELİK Y., ALTUN O., Project Supported by Higher Education Institutions, Tektelli Kesim Makinelerinde Mermer Kesme Veriminin Mermer Tozu Tane Boyu ile Kontrolü, 2016 - 2017

ALTUN O., DÜNDAR H., Project Supported by Higher Education Institutions, Kırma ve Öğütme'16 Kongre Katılımı (11-14 Nisan 2016), 2016 - 2016

ALTUN O., Project Supported by Higher Education Institutions, Öğretim üyeliğine geçiş desteği, 2015 - 2016

ALTUN O., Project Supported by Higher Education Institutions, 14. Avrupa Öğütme ve Sınıflandırma Sempozyumu, 7-10 Eylül 2015 İsveç, 2015 - 2015

ALTUN O., Project Supported by Higher Education Institutions, MODELLEME VE SİMÜLASYON TEKNİKLERİ KULLANILARAK BAKIR ÖĞÜTME DEVRESİ KAPASİTESİNİN ARTTIRILMASI, 2014 - 2015

Metrics

Publication: 59

Citation (WoS): 237

Citation (Scopus): 356

H-Index (WoS): 9

H-Index (Scopus): 11