

## Res. Asst. PhD NURETTİN ALPER TOPRAK

### Personal Information

**Email:** natoprak@hacettepe.edu.tr

**Web:** <https://avesis.hacettepe.edu.tr/natoprak>

### International Researcher IDs

ScholarID: nZp9UHAAAAAJ

ORCID: 0000-0003-0172-2198

Publons / Web Of Science ResearcherID: G-5949-2013

ScopusID: 56496664600

Yoksis Researcher ID: 201447

### Education Information

Doctorate, Hacettepe University, Fen Bilimleri Enstitüsü, Maden Mühendisliği, Turkey 2010 - 2015

Postgraduate, Hacettepe University, Fen Bilimleri Enstitüsü, Maden Mühendisliği, Turkey 2007 - 2010

Undergraduate, Hacettepe University, Mühendislik Fakültesi, Maden Mühendisliği, Turkey 2001 - 2006

### Foreign Languages

English, B2 Upper Intermediate

### Dissertations

Doctorate, ÖĞÜTME YARDIMCILARININ ÇİMENTO ÖĞÜTME DEVRESİ PERFORMANSI ÜZERİNE ETKİLERİNİN MODELLENMESİ ve SİMÜLASYONU, Hacettepe Üniversitesi, Fen Bilimleri Enstitüsü, Maden Mühendisliği (Dr), 2015

Postgraduate, Öğütme yardımcıların ve dayanım arttırıcıların devre performansı ve çimento kalitesi üzerine etkilerinin araştırılması, Hacettepe Üniversitesi, Fen Bilimleri Enstitüsü, Maden Mühendisliği (YI) (Tezli), 2010

### Research Areas

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

### Academic Titles / Tasks

Research Assistant, Hacettepe University, Mühendislik Fakültesi, Maden Mühendisliği Bölümü, 2007 - Continues

### Published journal articles indexed by SCI, SSCI, and AHCI

- 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)

- II. **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)
- III. **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)
- IV. **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)
- V. **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)
- VI. **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)
- VII. **Effects of grinding aid dosage on circuit performance and cement fineness**  
Toprak N. A., Benzer A. H., Karahan C. E., Zencirci E. S.  
CONSTRUCTION AND BUILDING MATERIALS, vol.265, pp.120707-120708, 2020 (SCI-Expanded)
- VIII. **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)
- IX. **Effects of grinding aids on model parameters of a cement ball mill and an air classifier**  
TOPRAK N. A., BENZER A. H.  
Powder Technology, 2018 (SCI-Expanded)
- X. **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)
- XI. **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)
- XII. **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)
- XIII. **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)
- XIV. **Simulation assisted capacity improvement of cement grinding circuit: Case study cement plant**  
DÜNDAR H., Benzer H., AYDOĞAN N., ALTUN O., TOPRAK N. A., ÖZCAN Ö., EKŞİ D., Sargin A.  
MINERALS ENGINEERING, vol.24, pp.205-210, 2011 (SCI-Expanded)

## Articles Published in Other Journals

- I. **BİR KIRMA ELEME TESİSİNİN PERFORMANSININ DEĞERLENDİRİLMESİ VE OPTİMİZASYONU**  
ÖZCAN Ö., TOPRAK N. A., GÖKTAŞ İ.  
Bilimsel Madencilik Dergisi, vol.57, pp.95-108, 2018 (Peer-Reviewed Journal)

- II. **Performance evaluation and optimization of a crushing-screening plant, Bir kırma eleme tesisinin performansının değerlendirilmesi ve optimizasyonu**  
Özcan Ö., Toprak N. A., Göktaş İ.  
Scientific Mining Journal, vol.57, pp.96-108, 2018 (Scopus)

## Refereed Congress / Symposium Publications in Proceedings

- I. **ASSESSMENT OF MICROHYDRODYNAMIC AND POPULATION BALANCE MODELING OF WET STIRRED MEDIA MILLS**  
Bilgili E., ALTUN O., TOPRAK N. A., ALTUN D.  
IMCET 2023 28th International Mining Congress and Exhibition of Türkiye, Antalya, Turkey, 28 November 2023
- II. **SIMULATION OF PILOT SCALE JAW CRUSHER USING DEM**  
ALTUN D., ALTUN O., TOPRAK N. A., Tipici C. V., Akn Ö., Dağtarla Z., Savaş E.  
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., Darılmaz 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., Darılmaz 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. **PROPOSED FLOWSHEET DESIGN FOR A CEMENT GRINDING CIRCUIT BY CONSIDERING FINE GRINDING TECHNOLOGY**  
ALTUN O., Karahan C. E., Zencirci E. S., TOPRAK N. A., BENZER A. H.  
IMCET 2019, 15 - 19 April 2019
- VI. **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
- VII. **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
- VIII. **Effects of Grinding Aid Dosage on Cement Grinding Circuit**  
TOPRAK N. A., BENZER A. H.  
ESSC 2017 15th European Symposium of Comminution and Classification, 11 - 14 September 2017
- IX. **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
- X. **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
- XI. **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
- XII. **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

- XIII. **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
- XIV. **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
- XV. **Modelling and Simulation of the CrushingScreening Plant in a Gold Mine**  
DÜNDAR H., BENZER A. H., ÖZCAN Ö., TOPRAK N. A., EROL U. K., SHERREN K., DEMİR M.  
12th International Mineral Processing Symposium, Nevşehir, Turkey, 6 - 08 October 2010
- XVI. **Modelling and Simulation of the Crushing and Screening Plant in a Gold Mine**  
DÜNDAR H., BENZER A. H., ÖZCAN Ö., TOPRAK N. A., Erol U. K., Sherren K., Demir M.  
IMPS 2010 (XII International Mineral Processing Symposium), Nevşehir, Turkey, 6 - 08 October 2010
- XVII. **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

## Supported Projects

BENZER A. H., TOPRAK N. A., Project Supported by Higher Education Institutions, ÖĞÜTME YARDIMCILARININ ÇİMENTO ÖĞÜTME DEVRESİ PERFORMANSI ÜZERİNE ETKİLERİNİN MODELLENMESİ ve SİMÜLASYONU, 2015 - 2015

## Metrics

Publication: 33

Citation (WoS): 115

Citation (Scopus): 172

H-Index (WoS): 6

H-Index (Scopus): 6