

## Assoc. Prof. YAKUP UMUCU

### Personal Information

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### International Researcher IDs

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Publons / Web Of Science ResearcherID: AAV-7484-2021

ScopusID: 8620671400

Yoksis Researcher ID: 20155

### Education Information

Doctorate, Suleyman Demirel University, Fen Bilimleri Enstitüsü, Maden Mühendisliği Anabilim Dalı, Turkey 2005 - 2011

Postgraduate, Suleyman Demirel University, Fen Bilimleri Enstitüsü, Maden Mühendisliği Anabilim Dalı, Turkey 2001 - 2004

Undergraduate, Suleyman Demirel University, Mühendislik Fakültesi, Maden Mühendisliği Bölümü, Turkey 1996 - 2000

### Certificates, Courses and Trainings

Vocational Training, ISO 14001:2015 ENVIRONMENTAL MANAGEMENT SYSTEMS / AUDITOR-LEAD AUDITOR TRAINING COURSE, FQC-EXEMPLAR GLOBAL / SIGMACERT, 2022

Vocational Training, ISO 9001:2015 QUALITY MANAGEMENT SYSTEMS / AUDITOR-LEAD AUDITOR TRAINING COURSE, FQC-EXEMPLAR GLOBAL / SIGMACERT, 2022

Vocational Training, DAİMİ NEZARETÇİLİK EĞİTİMİ, TMMOB MADEN MÜHENDİSLERİ ODASI, 2018

Vocational Training, NETCAD, NETCAD, 2010

IT, MATLAB , FİGES, 2006

### Dissertations

Doctorate, MODELING of GRINDING PROCESS WITH ARTIFICIAL NEURAL NETWORK of THE BASE of LIMESTONE SAMPLE AND COMPARISON WITH THE KINETIC MODEL, Suleyman Demirel University, Fen Bilimleri Enstitüsü, Maden Mühendisliği Anabilim Dalı, 2011

Postgraduate, ISPARTA KARAKAYA YÖRESİ POMZA YATAKLARININ GRAVİTE İLE ZENGİNLEŞTİRME OLANAKLARININ ARAŞTIRILMASI, Suleyman Demirel University, Fen Bilimleri Enstitüsü, Maden Mühendisliği Anabilim Dalı, 2004

### Research Areas

Size Reduction and Size Increasing of Solids, Grinding and Abrasion Materials Technology, Ore Handling, Communiton-Sizing-Classification, Benefication by Gravity, Dense-Medium, Magnetic and Electrostatic, Coal Preparation, Process and

## Academic Titles / Tasks

Associate Professor, Eskisehir Osmangazi University, MÜHENDİSLİK-MİMARLIK FAKÜLTESİ, MADEN MÜHENDİSLİĞİ BÖLÜMÜ, 2021 - Continues

Associate Professor, Suleyman Demirel University, Mühendislik Fakültesi, Maden Mühendisliği Bölümü, 2016 - 2021

Assistant Professor, Suleyman Demirel University, Mühendislik Fakültesi, Maden Mühendisliği Bölümü, 2011 - 2016

Research Assistant, Suleyman Demirel University, Mühendislik Fakültesi, Maden Mühendisliği Bölümü, 2002 - 2011

## Academic and Administrative Experience

Director of the Center, Suleyman Demirel University, Rektörlük, Rektörlük, 2013 - 2015

Deputy Head of Department, Suleyman Demirel University, Mühendislik Fakültesi, Maden Mühendisliği Bölümü, 2012 - 2014

## Courses

MINERAL PROCESSING II, Undergraduate, 2021 - 2022

MINERAL PROCESSING I, Undergraduate, 2021 - 2022

COAL PREPARATION AND TECHNOLOGY, Undergraduate, 2015 - 2016, 2014 - 2015, 2013 - 2014, 2012 - 2013

ORE DRESSING, Undergraduate, 2015 - 2016, 2014 - 2015, 2013 - 2014, 2012 - 2013

CERAMIC TECHNOLOGY, Undergraduate, 2014 - 2015

MİNERAL PROCESSING, Undergraduate, 2013 - 2014, 2012 - 2013

## Advising Theses

Umucu Y., Seramik Sağlık Gereçleri Hammaddelerinin Öğütme ve Pişirim Sartlarının Ürünlerin Kalitesi Üzerine Etkileri, Doctorate, D.Öğr.(Student), 2016

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

- I. **The relationships between the kinetic grinding parameters with interstitial fillings and the liberation degree of a chromite ore**  
UMUCU Y., Deniz V., GÜRSOY Y. H., TOKCAN I., Arsoy Z.  
Physicochemical Problems of Mineral Processing, vol.59, no.5, 2023 (SCI-Expanded)
- II. **Estimation of grade and recovery in the concentration of barite tailings by the flotation using the MLR and ANN analyses**  
Deniz V., UMUCU Y., Deniz O. T.  
Physicochemical Problems of Mineral Processing, vol.58, no.5, 2022 (SCI-Expanded)
- III. **The evaluation of grinding process using artificial neural network**  
Umucu Y., DENİZ V., BOZKURT M. M. V., Çağlar M. F.  
International Journal of Mineral Processing, vol.146, pp.46-53, 2016 (SCI-Expanded)
- IV. **Investigation of separation performance of dense medium cyclone using computer simulation**  
Umucu Y.  
Physicochemical Problems of Mineral Processing, vol.51, no.1, pp.303-314, 2015 (SCI-Expanded)
- V. **A new model for comminution behavior of different coals in an impact crusher**

Umucu Y., Deniz V., Cayirli S.

Energy Sources, Part A: Recovery, Utilization and Environmental Effects, vol.36, no.13, pp.1406-1413, 2014 (SCI-Expanded)

- VI. **Flocculation of fine particles in ceramic wastewater by using polymers**  
Deniz V., Umucu Y.  
Inzynieria Mineralna, vol.15, no.2, pp.55-60, 2014 (SCI-Expanded)
- VII. **The effects of ball types on breakage parameters of barite**  
Umucu Y., Altinpine M. Y., Deniz V.  
Inzynieria Mineralna, vol.15, no.2, pp.113-117, 2014 (SCI-Expanded)
- VIII. **An evaluation of a modified product size distribution model based on t-family curves for three different crushers**  
Umucu Y., Deniz V., Unal N.  
Physicochemical Problems of Mineral Processing, vol.49, no.2, pp.473-480, 2013 (SCI-Expanded)
- IX. **Prediction of the bond grindability index from the sink-float test data of coals**  
Deniz V., Umucu Y., Cayirli S.  
Energy Sources, Part A: Recovery, Utilization and Environmental Effects, vol.35, no.15, pp.1385-1391, 2013 (SCI-Expanded)
- X. **Application of statistical process control for coal particle size**  
Deniz V., Umucu Y.  
Energy Sources, Part A: Recovery, Utilization and Environmental Effects, vol.35, no.14, pp.1306-1315, 2013 (SCI-Expanded)
- XI. **Interrelationships between the bond grindability with physicomechanical and chemical properties of coals**  
Deniz V., Umucu Y.  
Energy Sources, Part A: Recovery, Utilization and Environmental Effects, vol.35, no.2, pp.144-151, 2013 (SCI-Expanded)
- XII. **Estimation of the bond grindability index from the sink-float test data of two different particulate pumices**  
Deniz V., Umucu Y., Cayirli S.  
Particulate Science and Technology, vol.30, no.5, pp.403-415, 2012 (SCI-Expanded)
- XIII. **Investigation of breakage behavior of different mineralogical and morphological characteristic pumices**  
DENİZ V., Cayirli S., Umucu Y.  
Granular Matter, vol.13, no.5, pp.623-629, 2011 (SCI-Expanded)
- XIV. **Interpretation using sink-float data by simple recovery equations for two different pumices**  
Deniz V., Umucu Y.  
Transactions of the Institutions of Mining and Metallurgy, Section C: Mineral Processing and Extractive Metallurgy, vol.114, no.2, pp.109-114, 2005 (SCI-Expanded)
- XV. **A statistical model for gangue entrainment into froths in flotation of sulphide ores**  
ÇİLEK E. C., Umucu Y.  
Minerals Engineering, vol.14, no.9, pp.1055-1066, 2001 (SCI-Expanded)

## Articles Published in Other Journals

- I. **INVESTIGATION OF ENERGY - TECHNOLOGY DEVELOPMENT IN ULTRA FINE GRINDING**  
UMUCU Y., DENİZ V., GÜRSOY Y. H.  
Eskişehir Osmangazi Üniversitesi mühendislik ve mimarlık fakültesi dergisi (online), vol.31, no.4, pp.1060-1076, 2023 (Peer-Reviewed Journal)
- II. **INVESTIGATION OF THE RELATIONSHIP BETWEEN THE BOND GRINDABILITY TEST AND THE STATIC AND DYNAMIC STRENGTH OF ROCKS**

Umucu Y., Gürsoy Y. H.

Eskişehir Osmangazi Üniversitesi Mühendislik Mimarlık Fakültesi Dergisi, vol.30, no.1, pp.79-89, 2022 (Peer-Reviewed Journal)

- III. **The relationship between cement quality and separation cut size**  
Umucu Y., Deniz V., SARAÇ M. S., Kuzgun A. E.  
Inzynieria Mineralna, vol.2015, no.2, pp.189-194, 2015 (Scopus)
- IV. **The investigation of effect of wet-dry grinding condition and ball types on kinetic model parameters for Kaolin**  
Umucu Y., Haner S., Tunay T.  
Inzynieria Mineralna, vol.16, no.1, pp.205-211, 2015 (Scopus)
- V. **The effect of ball type in fine particles grinding on kinetic breakage parameters**  
Umucu Y., Deniz V.  
Inzynieria Mineralna, vol.16, no.1, pp.197-203, 2015 (Scopus)
- VI. **The Evaluation of Grinding Behaviors of Quartz and Feldspar**  
Umucu Y., Deniz V.  
The Online Journal of Science and Technology, vol.4, no.1, pp.60-67, 2014 (Peer-Reviewed Journal)
- VII. **THE EVALUATION OF GRINDING PROCESS USING MODSIM©**  
Umucu Y., Deniz V., Bozkurt M. M. V.  
AGH Journal of Mining and Geoengineering, vol.36, no.4, pp.187-200, 2012 (Peer-Reviewed Journal)
- VIII. **A study simulation and modeling on the performance of the heavy media cyclone in coal beneficiation**  
Umucu Y., Deniz V.  
AGH Journal of Mining and Geoengineering, vol.36, no.4, pp.179-185, 2012 (Peer-Reviewed Journal)

## **Refereed Congress / Symposium Publications in Proceedings**

- I. **Investigation of blasting impact on material PATLATMANIN MALZEME ÜZERINE ETKISININ INCELENMESI**  
Umucu Y., Ekmiş V., Alp D., Çağatay O.  
26th International Mining Congress and Exhibition of Turkey, IMCET 2019, Antalya, Turkey, 16 - 19 April 2019, pp.548-559
- II. **Comparison of grinding efficiency between ball mills and vertical roller mills in coarse grinding**  
UMUCU Y., DENİZ V., MART O., YÜCE A. K., SARAÇ M. F.  
Proceedings of XVI. Balkan Mineral Processing Congress, Belgrade, Serbia, 17 - 19 June 2015, vol.1, pp.161-164
- III. **An investigation on the washability treatment for the removal of serpentine and magnesite from olivine in the different size fractions**  
UMUCU Y., DENİZ V., ÖZÜN S., HATİPOĞLU A., TAMGÜÇ B., TUNAY T.  
Proceedings of XVI. Balkan Mineral Processing Congress, Belgrade, Serbia, 17 - 19 June 2015, vol.1, pp.245-248
- IV. **Investigation of Kinetic Model Parameters Change of Micronized Albite in the Dry and Wet Mill Media Conditions for Ball Filling**  
UMUCU Y., HANER S., TUNAY T.  
19th Conference on Environment and Mineral Processing, Ostrava, Czech Republic, 4 - 06 June 2015, vol.2, pp.7-14
- V. **The investigation of the effect on the cement quality of separation particle size of the air classifier**  
UMUCU Y., DENİZ V., SARAÇ M. F., KUZGUN A. E.  
Proceedings of 19th Conference on Environment and Mineral Processing, Ostrava, Czech Republic, 4 - 06 June 2015, vol.2, pp.117-122
- VI. **Bir Çimento Öğütme Devresinde Havalı Sınıflandırıcı Performansının Zamana Bağlı Olarak Araştırılması**  
UMUCU Y., KUZGUN A. E., TUNAY T., DENİZ V.  
9TH INTERNATIONAL INDUSTRIAL MINERALS SYMPOSIUM, İzmir, Turkey, 14 - 15 May 2015, pp.603-611

- VII. **Investigation of Washability of Different Olivine Ores**  
UMUCU Y., HATİPOĞLU A., BAŞER T., TUNAY T., DENİZ V., CARAN Ş., DAKDUKLU R.  
PROCEEDINGS OF THE 24TH INTERNATIONAL MINING CONGRESS AND EXHIBITION OF TURKEY (IMCET), Antalya, Turkey, 14 - 17 April 2015, pp.732-736
- VIII. **Investigation of the Reasons for Differences of Sulfur Input and Output of Mills in the Coal Grinding Circuit**  
KOLUKISA B., GÖKHAN K., UMUCU Y.  
PROCEEDINGS OF THE 24TH INTERNATIONAL MINING CONGRESS AND EXHIBITION OF TURKEY (IMCET), Antalya, Turkey, 14 - 17 April 2015
- IX. **Modeling of grinding process by artificial neural network for calcite mineral**  
UMUCU Y., ÇAĞLAR M. F., GÜNDÜZ L., BOZKURT M. M. V., DENİZ V.  
2011 International Symposium on INnovations in Intelligent SysTems and Applications, INISTA 2011, Istanbul-Kadikoy, Turkey, 15 - 18 June 2011, pp.344-348
- X. **Estimation of the Bond's grindability from sink-float test data for two different pumices**  
Deniz V., Umucu Y., Çayirli S.  
21st International Mining Congress and Exhibition of Turkey, IMCET 2009, Antalya, Turkey, 6 - 08 May 2009, pp.229-238
- XI. **Investigation of breakage properties of chromites at Kayseri region**  
Deniz V., Tank E., Boz E., Umucu Y.  
20th International Mining Congress and Exhibition of Turkey, IMCET 2007, Ankara, Turkey, 6 - 08 June 2007, pp.57-65
- XII. **A New Model on Breakage Behaviour of A Laboratory Impact Mill**  
DENİZ V., AKKURT Y., UMUCU Y.  
Proceedings of the 19th International Mining Congress, Chamber of Mining Engineers of Turkey, İzmir, Turkey, 9 - 12 June 2005
- XIII. **The effect of circulating load and test size on the Bond work index based on natural amorphous silica**  
DENİZ V., SÜTÇÜ N., UMUCU Y.  
The 18th International Turkey Mining Congress, Chamber of Mining Engineers/Turkey, Antalya, Turkey, 10 - 13 June 2003, pp.517-522

## **Supported Projects**

Umucu Y., Haner S., TUBITAK Project, Özsüz Seramik Hammaddelerin Bilyalı Değirmende İnce Tane Boyutlarında Kuru Ve Yaş Öğütme Kinetiklerinin Vitrikiye Ürün Özelliklerine Etkileri, 2014 - 2016

Umucu Y., TUBITAK Project, BİR ÇİMENTO FABRİKASINDA BULUNAN KAMARALI BİLYALI DEĞİRMENİN VERİMLİLİĞİNİN ARAŞTIRILMASI TUBİTAK BİDEB 2241 A SANAYİ ODAKLI LİSANS BİTİRME TEZİ DESTEKLEME PROGRAMI Üniversite Öğrencileri Yurt içi Yurt Dışı Araştırma Projeleri Destekleme Programı 2015 2, 2015 - 2015

Umucu Y., Yağmurlu F., Şentürk M., Elitok Ö., Project Supported by Higher Education Institutions, Burdur çevresinde yer alan ofiyolitik plaserlerin ağır mineral içeriğinin ve potansiyelinin araştırılması, 2011 - 2014

Umucu Y., Gündüz L., Project Supported by Higher Education Institutions, Kireçtaşı Örneğinin Yapay Sinir Ağları ile Öğütme İşlemlerinin Modellenmesi ve Kinetik Modelle Kıyaslanması, 2009 - 2011

Umucu Y., Deniz V., TUBITAK Project, 500 000 ton Barit Maden Atıklarının Geri Kazanım Teknolojisi, 2002 - 2004

Umucu Y., Deniz V., Project Supported by Higher Education Institutions, Isparta Karakaya Yöresi Pomza Yataklarının Gravite ile Zenginleştirilme Olanaklarının Araştırılması ve Tesis Similasyonu, 2002 - 2004

## **Memberships / Tasks in Scientific Organizations**

TMMOB MADEN MÜHENDİSLERİ ODASI, Member, 2000 - Continues, Turkey

## **Tasks In Event Organizations**

Umucu Y., VI International Mineral Engineering Conference MEC 2023, Scientific Congress, Poland, Haziran 2023

### **Metrics**

Publication: 38

Citation (WoS): 41

Citation (Scopus): 106

H-Index (WoS): 3

H-Index (Scopus): 6