Prof. Gülşen TOZSİN

Personal Information

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International Researcher IDs
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ScopusID: 55786450400
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Education Information

Doctorate, Middle East Technical University, Faculty Of Engineering, Department Of Mining Engineering, Turkey 2004 - 2011
Undergraduate, Kocaeli University, Mühendislik Fakültesi, Çevre Mühendisliği Bölümü, Turkey 1999 - 2003

Foreign Languages

English, C1 Advanced

Dissertations

Doctorate, USE OF WASTE PYRITE FROM MINERAL PROCESSING PLANTS IN SOIL REMEDIATION, Orta Doğu Teknik Üniversitesi, Mühendislik Fakültesi, Maden Mühendisliği Bölümü, 2011

Research Areas

Mining Engineering and Technology, Ore-Dressing, Benefication by Gravity, Dense-Medium, Magnetic and Electrostatic, Coal Preparation, Chemical-Biological Winning Techniques and Mineral Processing, Metallurgical and Materials Engineering, Production Metallurgy, Recycling Processes, Hydrometallurgy, Engineering and Technology

Academic Titles / Tasks

Professor, Ataturk University, Mühendislik Fakültesi, Metalurji Ve Malzeme Mühendisliği, 2023 - Continues
Associate Professor, Ataturk University, Mühendislik Fakültesi, Metalurji Ve Malzeme Mühendisliği, 2017 - 2023
Assistant Professor, Ataturk University, Oltu Yer Bilimleri Fakültesi, Maden Mühendisliği, 2012 - 2017
Research Assistant, Middle East Technical University, Faculty Of Engineering, Department Of Mining Engineering, 2004 - 2012
Research Assistant, The University of British Columbia, Faculty of Engineering, Department of Mining Engineering, Vancouver/Kanada, 2008 - 2010

Academic and Administrative Experience

Dış İlişkiler Ofisi Yönetim Kurulu Üyesi, Ataturk University, 2024 - Continues
Head of Department, Ataturk University, Mühendislik Fakültesi, Metalurji Ve Malzeme Mühendisliği, 2024 - Continues
Proje Ofisi Yürütme Kurulu Üyesi, Ataturk University, 2017 - 2022
Head of Department, Ataturk University, Mühendislik Fakültesi, Metalurji ve Malzeme Mühendisliği, 2018 - 2021
BAP Koordinatör Yardımcısı, Ataturk University, 2017 - 2020
Farabi Coordinator, Ataturk University, Oltu Yer Bilimleri Fakültesi, 2013 - 2017
Erasmus Coordinator, Ataturk University, Oltu Yer Bilimleri Fakültesi, 2013 - 2017
Mevlana Exchange Program Coordinator, Ataturk University, Oltu Yer Bilimleri Fakültesi, 2013 - 2017
Head of Department, Ataturk University, Oltu Yer Bilimleri Fakültesi, Maden Mühendisliği Bölümü, 2013 - 2017

Courses

Atıklardan Metal Geri Kazanımı, Postgraduate, 2019 - 2020
Kıymetli Metaller Metalurjisi, Postgraduate, 2019 - 2020
Kimyasal Metalurji, Undergraduate, 2018 - 2019
Girişimcilik I, Undergraduate, 2018 - 2019
İş Güvenliği ve Mühendislik Etiği, Undergraduate, 2017 - 2018
Flotasyon, Undergraduate, 2015 - 2016
Üretim Metalurjisi, Undergraduate, 2015 - 2016
Türkiye Madenleri I, Undergraduate, 2015 - 2016
Cevher Zenginleştirme, Undergraduate, 2014 - 2015
Cevher Hazırlama, Undergraduate, 2014 - 2015
Mesleki İngilizce I, Undergraduate, 2013 - 2014
Maden Mühendisliğine Giriş II, Undergraduate, 2013 - 2014
Maden Mühendisliğine Giriş I, Undergraduate, 2013 - 2014
Mesleki İngilizce II, Undergraduate, 2013 - 2014
Maden Yatakları, Undergraduate, 2011 - 2012

Advising Theses

Tozsin G., Arol A. İ., Determination of agglomeration characteristics of Oltu-stone (jet stone) wastes, Doctorate, M.RAHEEL(Student), 2022
Tozsin G., Çelik cüruflarının alternatif kullanım alanlarının değerlendirilmesi, Postgraduate, B.KAVASOĞLU(Student), 2022
Tozsin G., Oltu taşı atıklarının geri kazanımı için safsızlıklarından arındırılması ve iyileştirilmesi, Postgraduate, Ü.BORA(Student), 2021
Tozsin G., Öztaş T., Sülfürlü bakır işletmelerinde ortaya çıkan maden atıklarının tuzlu-alkali toprakların ıslahında kullanım etkinliğinin belirlenmesi, Postgraduate, R.TIRAŞCI(Student), 2019

Designed Courses And Trainings

Fındık Coşkunçay D., Özdemir H., Tozsin G., Canpolat N., Erkal G., TÜBITAK 3005, 1001 ve 1002 Programlarına Yönelik Proje Yazma Egitimi II, February 2022
Fındık Coşkunçay D., Özdemir H., Tozsin G., Canpolat N., Erkal G., TÜBITAK 3005, 1001 ve 1002 Programlarına Yönelik Proje Yazma Egitimi I , December 2021

Published journal articles indexed by SCI, SSCI, and AHCI

I. **Utilization possibilities of steel slag as backfill material in coastal structures**
TOZSİN G., YONAR F., Yücel O., Dikbas A.
Scientific Reports, vol.13, no.1, 2023 (SCI-Expanded)

II. **Utilization of Steel Slag as a Soil Amendment and Mineral Fertilizer in Agriculture: A Review**
TOZSİN G., ÖZTAŞ T.
Tarim Bilimleri Dergisi, vol.29, no.4, pp.906-913, 2023 (SCI-Expanded)

III. **Plant nutrient contents and spatial distribution patterns of toxic element concentrations in mine site soils**
TOZSİN G., ÖZTAŞ T.
Turkish Journal of Agriculture and Forestry, vol.47, no.1, pp.124-131, 2023 (SCI-Expanded)

IV. **Conversion of cleaned Oltu-stone wastes (a semi-precious stone) into a valuable product using binderless agglomeration**
Bawani M. R., AROL A. İ., TOZSİN G., TORUN A.
Physicochemical Problems of Mineral Processing, vol.59, no.5, 2023 (SCI-Expanded)

V. **Effects of abandoned coal mine on the water quality**
TOZSİN G., AROL A. İ., Duzgun S., Soydan H., TORUN A.
INTERNATIONAL JOURNAL OF COAL PREPARATION AND UTILIZATION, vol.42, no.11, pp.3202-3212, 2022 (SCI-Expanded)

VI. **Evaluation of a Turkish Lignite Coal Cleaning by Conventional and Enhanced Gravity Separation Techniques**
TOZSİN G., Acar C., Sivrikaya O.
INTERNATIONAL JOURNAL OF COAL PREPARATION AND UTILIZATION, vol.38, no.3, pp.135-148, 2018 (SCI-Expanded)

VII. **Inhibition of acid mine drainage and immobilization of heavy metals from copper flotation tailings using a marble cutting waste**
Tozsin G.
INTERNATIONAL JOURNAL OF MINERALS METALLURGY AND MATERIALS, vol.23, no.1, pp.1-6, 2016 (SCI-Expanded)

VIII. **Changes in the chemical composition of an acidic soil treated with marble quarry and marble cutting wastes**
Tozsin G., ÖZTAŞ T., AROL A. İ., KALKAN E.
CHEMOSPHERE, vol.138, pp.664-667, 2015 (SCI-Expanded)

IX. **Pyritic Tailings as a Source of Plant Micronutrients in Calcareous Soils**
Tozsin G., Arol A. I.
Communications in Soil Science and Plant Analysis, vol.46, no.12, pp.1473-1481, 2015 (SCI-Expanded)

X. **Use of waste pyrite as an alternative to gypsum for alkaline soil amelioration**
Tozsin G., Arol A. İ., Çaycı G.
INTERNATIONAL JOURNAL OF MINING RECLAMATION AND ENVIRONMENT, vol.29, no.3, pp.169-177, 2015 (SCI-Expanded)

XI. **The effects of marble wastes on soil properties and hazelnut yield**
Tozsin G., ÖZTAŞ T., AROL A. İ., KALKAN E., DUYAR O.
JOURNAL OF CLEANER PRODUCTION, vol.81, pp.146-149, 2014 (SCI-Expanded)

XII. **Removal of textile dye Reactive Black 5 from aqueous solution by adsorption on laccase-modified silica fume**
KALKAN E., NADAROĞLU H., ÇELEBİ N., Tozsin G.
DESALINATION AND WATER TREATMENT, vol.52, pp.6122-6134, 2014 (SCI-Expanded)

XIII. **Hazardous elements in soil and coal from the Oltu coal mine district, Turkey**
Tozsin G.
INTERNATIONAL JOURNAL OF COAL GEOLOGY, vol.131, pp.1-6, 2014 (SCI-Expanded)

XIV. **Using marble wastes as a soil amendment for acidic soil neutralization**
Tozsin G., AROL A. İ., ÖZTAŞ T., Kalkan E.

JOURNAL OF ENVIRONMENTAL MANAGEMENT, vol.133, pp.374-377, 2014 (SCI-Expanded)

XV. **EVALUATION OF PYRITIC TAILINGS FROM A COPPER CONCENTRATION PLANT FOR CALCAREOUS SODIC SOIL RECLAMATION**
Tozsin G., Arol A. İ., Çaycı G.
PHYSICOCHEMICAL PROBLEMS OF MINERAL PROCESSING, vol.50, no.2, pp.693-704, 2014 (SCI-Expanded)

XVI. **Water Purification of textile dye Acid red 37 by adsorption on laccase modified silica fume**
NADAROĞLU H., ÇELEBİ N., KALKAN E., TOZSİN G.
Jokull, vol.63, pp.87-113, 2013 (SCI-Expanded)

Articles Published in Other Journals

I. **Evaluation of Potential Uses of Steel Slags**
Tozsin G., Kavasoğlu B.
Kent akademisi (Online), vol.16, no.2, pp.1200-1211, 2023 (Peer-Reviewed Journal)

II. **Use of Steel Slags for Agricultural Purposes**
Tozsin G., Öztaş T.
Research in Agricultural Sciences, vol.54, no.1, pp.36-41, 2023 (Peer-Reviewed Journal)

III. **Utilization of Demolition Waste for Treatment of Acid Mine Drainage and Immobilization of Heavy Metals Released from Copper Flotation Tailings**
Tozsin G., Koç E., Yaylalı B., Deveci H.
Turkish Journal of Nature and Science, vol.3, no.11, pp.58-62, 2022 (Peer-Reviewed Journal)

IV. **Removal of heavy metals from synthetic acidic mine water using recycled aggregates**
TOZSİN G.
Middle East Journal of Science, vol.8, no.2, pp.77-83, 2022 (Peer-Reviewed Journal)

V. **Mermer Atıklarının Asidik Toprakların Nötralizasyonu ve Fındık Tarımı Üzerine Etkileri**
Tozsin G., Öztaş T., Arol A. İ., Kalkan E., Koç E.
Yer Altı Kaynakları Dergisi/Journal of Underground Resources, vol.4, pp.29-36, 2015 (Peer-Reviewed Journal)

Books & Book Chapters

I. **Use of waste pyrite from mineral processing plants in soil remediaiton**
TOZSİN G.
Lap Lambert Academic Publishing, Saarbrücken, 2014

II. **Mineral Processing Laboratory Manual**
Kılıç M. G., Özün S., Sivrikaya O., Lüle Şenöz G. M., Tozsin G., Acar C., Acar İ., Pekpak E., Sözeri H., Camalan M., et al.
Metu Press Yayınları, Ankara, 2010

Refereed Congress / Symposium Publications in Proceedings

I. **Conversion of cleaned Oltu stone wastes (A semi-precious stone) into a valuable product using binderless agglomeration**
Tozsin G., Bawanı M. R., Arol A. İ., Torun A.
17th International Mineral Processing Symposium, İstanbul, Turkey, 15 - 17 December 2022, pp.691-696

II. **Washability and Thermal Properties of Oltu Stone Wastes**
Tozsin G., Bawanı M. R., Arol A. İ., Akbulak Ü. B., Torun A.
International Mineral Processing Conference Eurasia, Antalya, Turkey, 31 October - 02 November 2019, pp.691-696

III. **Use of marble and pyritic wastes in soil remediaton**

AROL A. İ., TOZSİN G.
25th International Mining Congress of Turkey: New Trends in Mining, IMCET 2017, Antalya, Turkey, 11 - 14 April 2017, pp.340-346

IV. **Use of Waste Pyrite from Mineral Processing Plants in Soil Remediation**
TOZSİN G., AROL A. İ.
International Congress on Natural and Engineering Science, 1 - 05 September 2016

V. **Evaluation of Water Quality for the Kurtbogazi Dam Outlet and the Streams Feeding the Dam**
Tozsin G., Bakır F., Acar C., Koç E.
17th International Conference on Water Resources and Wetlands, Dubai, United Arab Emirates, 24 - 25 November 2015, vol.9, pp.1532-1537

VI. **Effects of copper mining waste applications on improvements of alkaline soil characteristics**
Tıraşçı R., TOZSİN G., ÖZTAŞ T.
5. International Scientific Agricultural Symposium, Jahorina, Bosnia And Herzegovina, 23 - 26 October 2014, pp.1-7

VII. **Evaluation of marble waste in soil acidity amelioration.**
Tozsin G., Koç E., Arol A. İ., Öztaş T., Kalkan E., Ağırman E.
27th International Mineral Processing Congress, Santiago, Chile, 20 - 24 October 2014

VIII. **Site selection for coal preparation plant using Analytic Hierarchy Process Method in Mugla**
Çolpan S., Sağır A., Kombe I., TOZSİN G.
30. International Pittsburgh Coal Conference, Beijing, China, 15 - 18 September 2013, pp.1-5

IX. **Sequential extractions of trace elements from waste rock samples from Antamina Mine**
TOZSİN G., Haupt C., Kabwe L., Klein B., Arol A. I.
23rd World Mining Congress, Montreal, Canada, 11 - 15 August 2013, pp.1-14

X. **The effects of pyritic tailings on plant growth**
TOZSİN G., Arol A. I., Cayci G.
International Conference on Environmental Science and Technology, Nevşehir, Turkey, 18 - 21 June 2013, pp.1-7

XI. **Decolorization of industrial synthetic dye using red mud with surface-immobilized laccase**
TOZSİN G., KALKAN E., NADAROĞLU H., ÇELEBİ N.
6. International Conference on Water Resources and Environment Research, Koblenz, Germany, 3 - 07 June 2013, pp.1-11

XII. **Atık piritlerin alkali toprak ıslahında kullanımı**
TOZSİN G., Arol A. I.
3. Atık Yönetimi Sempozyumu, Antalya, Turkey, 14 - 18 April 2013, pp.1-6

XIII. **Remediation of alkali soils with waste pyrite**
TOZSİN G., Arol A. I., Cayci G.
22nd World Mining Congress and EXPO, İstanbul, Turkey, 11 - 16 September 2011, pp.1-8

XIV. **Using waste pyrite as an amendment for calcareous soil**
TOZSİN G., Arol A. I.
14th Balkan Mineral Processing Congress, Tuzla, Bosnia And Herzegovina, 14 - 16 June 2011, pp.1-4

XV. **Production of hematite concentrate from low grade hematite ores**
TOZSİN G., Sivrikaya O., Sözeri H.
13th Balkan Mineral Processing Congress, Bucharest, Romania, 14 - 17 June 2009, pp.1-4

XVI. **Cevher zenginleştirme tesisi atık piritlerinin toprak ıslahında kullanılması**
TOZSİN G., Arol A. I.
3. Madencilik ve Çevre Sempozyumu, Ankara, Turkey, 11 - 12 June 2009, pp.1-4

XVII. **Use of waste pyrite in conditioning of alkali soils**
TOZSİN G., Arol A. I.
11th International Mineral Processing Symposium, Antalya, Turkey, 21 - 23 October 2008, pp.1-5

Supported Projects

Tozsin G., Aygün B., Karabulut A., Şimşek Ö., Yıldız Yorgun N., Akıncıoğlu A., TUBITAK Project, Development of High-Performance Composite Materials with Neutron Shielding Feature with Boron Minerals, 2023 - 2025
Tozsin G., Arol A. İ., Torun A., EU Supported Other Project, Study on Production of Precipitated Calcium Carbonate from Marble Wastes at Tekmar Marble and Mining Operations Production Export and Trade Inc., 2020 - 2020
Tozsin G., Dikbaş H. A., Yücel O., Yonar F., Beşlioğlu Y., Project Supported by Other Private Institutions, Çelikhane Cürufunun Balast Agregası Olarak Demiryolu İnşaatında Kullanımı, 2019 - 2020
Tozsin G., Dikbaş H. A., Yücel O., Yonar F., Beşlioğlu Y., Project Supported by Other Private Institutions, Çelikhane Cürufunun Dolgu Malzemesi Olarak Kıyı-Liman Yapılarında Kullanımı, 2019 - 2020
Tozsin G., Dilmaç M. K., Koç E., CB Strateji ve Bütçe Başkanlığı (Kalkınma Bakanlığı) Projesi, Oltu Taşı Atıklarının Geri Kazanım Yoluyla Ürüne Dönüştürülmesi Mamul Oltu Taşı Üretilmesi, 2018 - 2020
Tozsin G., Öztaş T., Dikbaş H. A., Beşlioğlu Y., Project Supported by Other Private Institutions, Çelikhane Cürufunun Tarımda Toprak Düzenleyici-Mineral Gübre Olarak Kullanım Olanaklarının Araştırılması ve Mevzuat Önerilerinin Oluşturulması, 2019 - 2019
Tozsin G., Akçil A. U., EU Supported Other Project, European network for innovative recovery strategies of rare earth and other critical metals from electric and electronic waste, 2015 - 2019
Tozsin G., Kalkan E., Öztaş T., TUBITAK Project, Terkedilmiş Maden Alanları için Uzaktan Algılamaya Dayalı Toprak Haritalarının Oluşturulması ve Toprak Rehabilitasyonu Alternatiflerinin Değerlendirilmesi, 2015 - 2018
TOZSİN G., ÖZTAŞ T., DÜZGÜN Ş., DİLMAÇ M. K., GÜRLEK E., Project Supported by Higher Education Institutions, WORLDVİEW-3 MULTİSPEKTRAL UYDU GÖRÜNTÜSÜ ANALİZİ İLE OLTU TAŞI MİNİMUM POTANSİYEL REZERVİNİN BELİRLENMESİ, 2015 - 2017
TOZSİN G., Project Supported by Higher Education Institutions, ELEKTRİKLİ VR ELEKTRONİK ATIKLARIN (E-ATIK)METAL GERİ KAZANIM POTANSİYELİ BAKIMINDAN DEĞERLENDİRİLMESİ, 2014 - 2016
Tozsin G., TUBITAK Project, Kentsel Dönüşüm Kapsamında Açığa Çıkan Beton Atıkların Asit Maden Drenaj Oluşumu ve Ağır Metal Salınımı Önlenmesinde Kullanım Potansiyelinin Araştırılması, 2014 - 2016
Tozsin G., Koç E., Çınar Demir K., Yaylalı B., Project Supported by Higher Education Institutions, Oltu ve Çevresindeki Kömür Ocaklarının Ürün Karakterizasyonunun Belirlenmesi ve Zenginleştirme Potansiyellerinin Araştırılması, 2013 - 2016
Dilmaç M. K., Tozsin G., CB Strateji ve Bütçe Başkanlığı (Kalkınma Bakanlığı) Projesi, Oltu Taşı Potansiyel Minimum Rezervin Tespit Edilmesi ve Haritalanması, 2015 - 2015
TOZSİN G., ÇINAR DEMİR K., Project Supported by Higher Education Institutions, OLTU VE ÇEVRESİNDEKİ KÖMÜR OCAKLARININ ÜRÜN KARAKTERİZASYONUNUN BELİRLENMESİ VE ZENGİNLEŞTİRME POTANSİYELLERİNİN ARAŞTIRILMASI, 2013 - 2015
Tozsin G., Koç E., Project Supported by Higher Education Institutions, Mermer Artıklarının Fındık Verimi Üzerine Etkileri, 2012 - 2015
TOZSİN G., Project Supported by Higher Education Institutions, TOPRAK ASİTLİĞİNİN MERMER ATIKLARIYLA REHABİLİTASYONU, 2012 - 2014

Tasks In Event Organizations

Tozsin G., 17th International Conference on Water Quality Assessment and Treatment, Scientific Congress, Sydney, Australia, Mart 2023
Tozsin G., Dağcı Kıranşan K., Akköse A., 2nd International Congress on Scientific Advances, Scientific Congress, Turkey, Aralık 2022
Tozsin G., 7th Scientific and Vocational Studies Congress, Scientific Congress, Turkey, Aralık 2022
Tozsin G., 10th International Conference on Advanced Technologies, Scientific Congress, Turkey, Kasım 2022
Tozsin G., 16th International Conference on Water Quality Assessment and Treatment, Scientific Congress, Sydney, Australia, Mart 2018
Tozsin G., International Symposium on Mining and Environment, Scientific Congress, Turkey, Eylül 2017
Tozsin G., 24th International Mining Congress of Turkey, Scientific Congress, Turkey, Nisan 2015

Metrics

Publication: 42
Citation (WoS): 164
Citation (Scopus): 203
H-Index (WoS): 8
H-Index (Scopus): 9

Scholarships

ÖYP (Öğretim Üyesi Yetiştirme Programı), Other Government Agencies, 2004 - 2011
TÜBİTAK 2214-A, Yurt Dışı Doktora Araştırma Bursu , TUBITAK, 2009 - 2010

Awards

Tozsin G., Bilimsel Teşvik ve Ödül Belgesi, Atatürk Üniversitesi, May 2016
Tozsin G., Bilimsel Teşvik ve Ödül Belgesi , Atatürk Üniversitesi, May 2015