

Prof. Nurgül Çelik Balcı

Personal Information

Office Phone: [+90 212 285 6118](tel:+902122856118)

Fax Phone: [+90 285 608 0](tel:+902856080)

Email: ncelik@itu.edu.tr

Web: <https://avesis.itu.edu.tr/ncelik>

Education Information

Doctorate, İstanbul Teknik Üniversitesi, Fen Bilimleri Enstitüsü, Jeoloji Mühendisliği (Dr), Turkey 2000 - 2005

Foreign Languages

English

Dissertations

Doctorate, Assessment of biogeochemical influence on metal sulfide and Fe (II) oxidation as inferred from oxygen, sulfur and Fe isotopes, İstanbul Teknik Üniversitesi, Fen Bilimleri Enstitüsü, Jeoloji Mühendisliği (Dr), 2005

Research Areas

Technical Sciences, Geological Engineering, General Geology, Geoarcheology, Geology, Ore Deposits-Geochemistry, Geochemistry (Organic and Inorganic, Medical (Medical) Geochemistry, Applied Geochemistry, Basic Sciences, Life Sciences, Biochemistry, Molecular Biology and Genetics

Academic Titles / Tasks

Professor, İstanbul Technical University, Maden, Jeoloji Mühendisliği, 1997 - Continues

Courses

Geochemistry , Undergraduate, 2017 - 2018

Selected topics in Geochemistry, Postgraduate, 2017 - 2018

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

- S and O isotope ratios of sulfate suggest enhanced monosulfides oxidation in a historical Pb-Zn mine site**
Çelik Balcı N., Güneş Y., Sekerci F., Sari E.
APPLIED GEOCHEMISTRY, vol.132, 2021 (Journal Indexed in SCI)

- II. **Source and distribution of pyrite and inorganic sulfur isotopes in the Saray and Pinarhisar Coalfields, North Thrace Basin, Turkey**
Erarslan C., Örgün Tutay Y., Çelik Balcı N.
INTERNATIONAL JOURNAL OF COAL GEOLOGY, vol.227, 2020 (Journal Indexed in SCI)
- III. **Biotic and Abiotic Imprints on Mg-Rich Stromatolites: Lessons from Lake Salda, SW Turkey**
Çelik Balcı N., Güneş Y., Kaiser J., ÖN S. A. , Eris K. K. , Garczynski B., Horgan B. H. N.
Geomicrobiology Journal, vol.37, no.5, pp.401-425, 2020 (Journal Indexed in SCI Expanded)
- IV. **Recombinant production and characterization of a novel esterase from a hypersaline lake, Acigol, by metagenomic approach**
Tütüncü H. E. , Çelik Balcı N., Tüter M., Gül Karagüler N.
EXTREMOPHILES, vol.23, no.5, pp.507-520, 2019 (Journal Indexed in SCI)
- V. **A modeling approach for calcium carbonate precipitation in a hypersaline environment: A case study from a shallow, alkaline lake**
Karami F., Çelik Balcı N., GÜVEN B.
ECOLOGICAL COMPLEXITY, vol.39, 2019 (Journal Indexed in SCI)
- VI. **Evaluating abiotic and microbial factors on carbonate precipitation in Lake Acigol, a hypersaline lake in Southwestern Turkey**
Balcı N., Demirel C., On S. A. , Gültekin A., Kurt M. A.
QUATERNARY INTERNATIONAL, vol.486, pp.116-128, 2018 (Journal Indexed in SCI)
- VII. **Geochemical characteristics of sedimentary manganese deposits of Binkılıç, Trache Basin, Turkey**
Gültekin A. H. , Çelik Balcı N.
NEW ZEALAND JOURNAL OF GEOLOGY AND GEOPHYSICS, vol.7, no.3, pp.1-13, 2018 (Journal Indexed in SCI)
- VIII. **Prediction of Acid Mine Drainage (AMD) and Metal Release Sources at the Kure Copper Mine Site, Kastamonu, NW Turkey**
Çelik Balcı N., Demirel C.
MINE WATER AND THE ENVIRONMENT, vol.37, no.1, pp.56-74, 2018 (Journal Indexed in SCI)
- IX. **Tetrathionate and Elemental Sulfur Shape the Isotope Composition of Sulfate in Acid Mine Drainage**
Balcı N., Brunner B., Turchyn A. V.
FRONTIERS IN MICROBIOLOGY, vol.8, 2017 (Journal Indexed in SCI)
- X. **Prediction of Acid Mine Drainage (AMD) and Metal Release Sources at the Küre Copper Mine Site, Kastamonu, NW Turkey**
Çelik Balcı N.
MINE WATER AND THE ENVIRONMENT, vol.33, no.109, pp.1-19, 2017 (Journal Indexed in SCI Expanded)
- XI. **Generation of Acid Mine Lakes Associated with Abandoned Coal Mines in Northwest Turkey**
Sanlıyuksel d., Çelik Balcı N., Baba A.
Archives of environmental contamination and toxicology, vol.70, no.4, pp.757-782, 2016 (Journal Indexed in SCI Expanded)
- XII. **Formation of Carbonate Nanoglobules by a Mixed Natural Culture under Hypersaline Conditions**
Çelik Balcı N., Demirel C.
Minerals, vol.0, 2016 (Journal Indexed in SCI Expanded)
- XIII. **Reproducing Authigenic Carbonate Precipitation in the Hypersaline Lake Acgol (Turkey) with Microbial Cultures**
Balcı N., MENEKSE M., Karaguler N. G. , Sönmez M. Ş. , Meister P.
GEOMICROBIOLOGY JOURNAL, vol.33, no.9, pp.758-773, 2016 (Journal Indexed in SCI)
- XIV. **Function Based Metagenomics Approach for Obtaining Lipase from Acid Mine Drainage Site**
Çelik Balcı N.
ARCHIVES OF BIOCHEMISTRY AND BIOPHYSICS, vol.2, pp.1-21, 2016 (Journal Indexed in SCI Expanded)
- XV. **Mineralogy Geochemistry and Fluid Inclusion Data from the Tumanpınarı Volcanic Rock Hosted Fe Mn Ba Deposit Balıkesir Dursunbey Turkey**
GÜLTEKİN A. H. , Çelik Balcı N.
Minerals, vol.6, no.4, pp.120-0, 2016 (Journal Indexed in SCI Expanded)

- XVI. **Direct Bioelectroanalysis at the interfaces by genetically engineered dehydrogenase**
ÇELİK BALCI N., MENEKŞE KILIÇ M., Gül-karagüler N., SÖNMEZ M. Ş. , Pa M.
BIOINSPIRED BIOMIMETIC AND NANOBOMATERIALS, vol.0, 2014 (Journal Indexed in SCI)
- XVII. **Distribution and Contamination of Heavy Metals in the Surface Sediments of Ambarli Port Area Istanbul Turkey**
Çelik Balcı N., SARI E., ÜNLÜ V. S. , APAK M. R. , KOLDEMİR B.
EKOLOJİ, vol.23, no.90, pp.1-9, 2014 (Journal Indexed in SCI Expanded)
- XVIII. **Evaluation of Contamination by Selected Elements in a Turkish Port**
SARI E., ÜNLÜ V. S. , Çelik Balcı N., APAK M. R. , KOLDEMİR B., KURT M. A.
POLISH JOURNAL OF ENVIRONMENTAL STUDIES, vol.22, no.3, pp.841-847, 2013 (Journal Indexed in SCI Expanded)
- XIX. **A double mutant of highly purified Geobacillus stearothermophilus lactate dehydrogenase recognises L mandelic acid as a substrate**
ÇELİK BALCI N., MENEKŞE KILIÇ M., Gül-karagüler N., SÖNMEZ M. Ş. , Pa M.
Enzyme and Microbial Technology, vol.0, 2013 (Journal Indexed in SCI)
- XX. **Mercury distribution in the sediments of Ambarli Port Area Sea of Marmara Turkey**
SARI E., ÜNLÜ V. S. , Çelik Balcı N., APAK M. R. , KOLDEMİR B., KURT M. A.
chemistry and Ecology, vol.29, no.1, pp.28-43, 2013 (Journal Indexed in SCI)
- XXI. **Bacterial community composition of sediments from Artificial Lake Maslak Istanbul Turkey**
Çelik Balcı N., Nurcan V., Emrah Y., GÜL-KARAGÜLER N.
ENVIRONMENTAL MONITORING AND ASSESSMENT, vol.184, no.9, pp.5641-5650, 2012 (Journal Indexed in SCI)
- XXII. **Oxygen and sulfur isotope systematics of sulfate produced during abiotic and bacterial oxidation of sphalerite and elemental sulfur**
Çelik Balcı N., Bernhard M., Pat S., Kevin M.
GEOCHIMICA ET COSMOCHIMICA ACTA, vol.77, pp.335-351, 2012 (Journal Indexed in SCI)
- XXIII. **The effect of methionine to cysteine substitution on the stability of formate dehydrogenase from Candida methylica**
ÇELİK BALCI N., MENEKŞE KILIÇ M., Gül-karagüler N., SÖNMEZ M. Ş. , Pa M.
Journal of Molecular Catalysis B-Enzymatic, vol.0, 2012 (Journal Indexed in SCI)
- XXIV. **Improved Candida Methylica Formate Dehydrogenase Fermentation Through Statistical Optimization Of Low Cost Culture Media**
ÇELİK BALCI N., MENEKŞE KILIÇ M., Gül-karagüler N., SÖNMEZ M. Ş. , Pa M.
Preparative Biochemistry & Biotechnology, vol.0, 2012 (Journal Indexed in SCI)
- XXV. **Bacterial community composition of sediments from Artificial Lake Maslak**
ÇELİK BALCI N., MENEKŞE KILIÇ M., Gül-karagüler N., SÖNMEZ M. Ş. , Pa M.
Environmental Monitoring and Assessment, vol.0, 2012 (Journal Indexed in SCI)
- XXVI. **Kinetic oxygen isotope effects during dissimilatory sulfate reduction A combined theoretical and experimental approach**
Alexandra T., Çelik Balcı N., Volker B., Timothy L., Benjamin B.
GEOCHIMICA ET COSMOCHIMICA ACTA, vol.74, no.7, pp.2011-2024, 2010 (Journal Indexed in SSCI)
- XXVII. **Oxygen and sulfur isotope systematics of sulfate produced by bacterial and abiotic oxidation of pyrite**
Çelik Balcı N., Pat S., Kevin M., Kerstin L.
Geochimica et cosmochimica, vol.71, no.15, pp.3796-3811, 2007 (Journal Indexed in SSCI)
- XXVIII. **Iron isotope fractionation during microbially stimulated Fe II oxidation and Fe III precipitation**
Çelik Balcı N., Pat S., Kevin M., Kerstin L.
Geochimica et cosmochimica, vol.70, no.3, pp.622-639, 2006 (Journal Indexed in SSCI)
- XXIX. **Mineral chemistry of barium and titanium bearing biotites in calc alkaline volcanic rocks from the Mezitler area Balıkesir Dursunbey western Turkey**
YAVUZ F., Gültekin A. H. , ÖRGÜN TUTAY Y., ÇELİK BALCI N., ÇELİK KARAKAYA M., ŞAŞMAZ A.
GEOCHEMICAL JOURNAL, vol.36, pp.563-580, 2002 (Journal Indexed in SCI Expanded)

- XXX. **Role of glutamate 52 in the mechanism of L lactate dehydrogenase from bacillus stearothermophilus**
ÇELİK BALCI N., MENEKŞE KILIÇ M., Gül-karagüler N., SÖNMEZ M. Ş. , Pa M.
BIOTECHNOLOGY LETTERS, vol.0, 2001 (Journal Indexed in SCI)

Articles Published in Other Journals

- I. **Optimization of Recombinant Novel Esterase Expression from Extremophiles**
TÜTÜNCÜ H. E. , ÇELİK BALCI N., TÜTER M., GÜL-KARAGÜLER N.
Journal of Applied Biological Sciences, vol.12, no.3, pp.33-36, 2018 (Refereed Journals of Other Institutions)
- II. **Salda Gölünün Jeomikrobiyolojisi ve Güncel Stromatolit Oluşumunda Mikrobiyal Etkiler**
Çelik Balcı N., Demirel C., Kurt M. A.
Yerbilimleri, vol.39, no.1, pp.19-39, 2018 (National Refreed University Journal)
- III. **Geochemical Characteristics of Sedimentary Manganese Deposit of Binkılıç, Trache Basin, Turkey**
GÜLTEKİN A. H. , ÇELİK BALCI N.
Journal of Geology Geophysics, vol.7, no.3, pp.3-13, 2018 (Refereed Journals of Other Institutions)
- IV. **Function Based Metagenomics Approach for Obtaining Lipase froö Acid Mine Drainage Site**
TÜTÜNCÜ H. E. , ÇELİK BALCI N., TÜTER M., GÜL-KARAGÜLER N., Oztug M.
International Journal Series in Engineering Science (IJSES), vol.3, pp.1-20, 2017 (Refereed Journals of Other Institutions)
- V. **Geochemical characteristics of Coal from Thrace Region, NW Turkey**
Örgün Tutay Y., Çelik Balcı N., Gültekin A. H. , Bürküt Y.
Progress in Mining and Oilfield Chemistry, vol.1, no.1, pp.249-258, 1999 (Refereed Journals of Other Institutions)

Books & Book Chapters

- I. **Jeolojik Ortamların İnsan sağlığı üzerindeki etkileri:**
Çelik Balcı N.
Elsevier, Ankara, 2011
- II. **Wall, J. D., Arkin, A. P., Balci, N. C., and Giles, B. J., (2007) Genetics and Genomics of Sulfate Respiration in Desulfovibrio. Microbial Sulfur Metabolism, Eds. Cornelius Friedrich and Christiane Dahl, pages: 1-11, chapter 1. 308. Springer Verlag.**
Çelik Balcı N.
Springer-Verlag , Berlin, 2007

Supported Projects

- Çelik Balcı N., Tok E., Eriş K. K. , KAİSER J., AKÇER ÖN S., Project Supported by Higher Education Institutions, Salda Gölü Güncel Çökel ve Stromatolit Oluşumlarının Jeokimyasal Mineralojik ve İzotopik Özelliklerinin Araştırılması, 2017 - 2019
- Çelik Balcı N., Project Supported by Higher Education Institutions, Magnezyum karbonatlara öncü Ca fosfatca zengin nanopartiküller, 2016 - 2018
- Çelik Balcı N., Project Supported by Higher Education Institutions, Acıgöl, Denizli Örneği Üzerinde Halofilik Mikroorganizmaların Karbonat Çökelimine Olan Etkilerinin Deneysel Olarak Araştırılması, 2016 - 2018
- Çelik Balcı N., Project Supported by Higher Education Institutions, MICROBIAL OXIDATION OF METAL SULFUR MINERALS, 2015 - 2018
- Çelik Balcı N., Project Supported by Higher Education Institutions, Bacterial Oxidation of Arsenopyrite, 2013 - 2018
- Çelik Balcı N., Project Supported by Higher Education Institutions, Balıkesir-Balya Pb-Zn Maden Atıklarının Jeokimyasal Karakterizasyonu ve Çevresel Etkilerinin Araştırılması, 2013 - 2018
- Çelik Balcı N., Project Supported by Higher Education Institutions, INFULUENCE OF SULFIDE MINERALOGY ON OXYGEN

AND SULFUR ISOTOPE RATIOS OF SULFATE GENERATED VIA OXİDATION, 2009 - 2018

Çelik Balcı N., Project Supported by Higher Education Institutions, Sülfid Mineralojosinin Sülfatın İzotop Değerlerine Olan Etkisi ve Asit Maden Sahalarının Oluşumu Açısından Değerlendirilmesi, 2007 - 2018

Çelik Balcı N., Project Supported by Higher Education Institutions, Kastamonu Küre Maden Atıklarının Çevre Jeokimyası Açısından İncelenmesi, 2013 - 2015

Çelik Balcı N., Project Supported by Higher Education Institutions, İTÜ Maslak Göletinin Mikrobiyolojik ve Biyokimyasal Özelliklerin Araştırılması, 2008 - 2009

Activities in Scientific Journals

Bulletin of Earth Sciences , Publication Committee Member, 2014 - Continues

Scientific Refereeing

Journal of Paleolimnology, SCI Journal, September 2018

Chemical Geology, SCI Journal, July 2018

Environmental Earth Sciences, SCI Journal, July 2018

Environmental Monitoring and Assessment, SCI Journal, May 2018

Arabian Journal of Geosciences, Journal Indexed in SSCI, February 2018

GSD, SCI Journal, January 2018

Carbonates and Evaporates, Journal Indexed in SSCI, January 2018

Carbonates and Evaporates, SCI Journal, January 2018

Carbonates and Evaporates, SCI Journal, July 2017

Sedimentology, SCI Journal, January 2017

Edit Congress and Symposium Activities

7. Jeokimya Sempozyumu, Session Moderator, Antalya, Turkey, 2016

FEMS, Invited Speaker, Maastricht, Netherlands, 2015

6. Jeokimya Sempozyumu, Session Moderator, Mersin, Turkey, 2014

Citations

Total Citations (WOS):31

h-index (WOS):3