

BULLETIN OF THE MINERAL RESEARCH AND EXPLORATION

Foreign Edition

2021

165

ISSN : 0026-4563

E-ISSN : 2651-3048

CONTENTS

Research Articles

Metallogenic characteristics of some localities of gold mineralization along shear zones of Elgaab, Dum el Tor and Sodri - Um Bader, (Sudan)Mohamed Osman ELGIZOULI, Badr El Din KHALIL and Mohammed Y. ABEDL GALIL	1
Evaluation of thermomagnetic properties and geothermal energy potential in parts of Bida Basin, Nigeria, using spectral analysis Churchill Chukwunonso OKONKWO, Augustine Ifeanyi CHINWUKO, Ajana Godwin ONWUEMESI,Emmanuel Kenechukwu ANAKWUBA, Sunday Okechukwu OKEKE and Ayatu Ojonugwa USMAN	13
Geological properties of Güney formation (Ereğli - Ulukışla Basin, Niğde)Ayfer ÖZDEMİR and Nurettin SONEL	31
Comparison of different approaches of computing the tilt angle of the total horizontal gradient and tilt angle of the analytic signal amplitude for detecting source edgesLuan Thanh PHAM, Erdiñç ÖKSÜM, Thanh Duc DO and Minh Duc VU	53
Genesis of the Zebra dolomites and relation to carbonate - hosted Au - Ag - Zn ± Pb deposits in the Maden Village (Ulukışla - Niğde), Central Taurides, South TurkeyAsuman KAHYA, Ercan KUŞCU and Firdevs İrem YENİCE	63
Geological and geochemical characteristics of Cünür volcanogenic massive sulfide mineralization (Kastamonu, Turkey)Kurtuluş GÜNAY	77
The effect of structural properties of Ankara clay on the electrokinetic propertiesGüzide KALYONCU ERGÜLER	97
Geochemistry of Miocene evaporites from the Aşkale (Erzurum, Eastern Turkey) area: Constraints for paleo-environmentEmel ABDİOĞLU YAZAR, Mehmet ARSLAN, Cahit HELVACI, İbrahim GÜNDOĞAN, İrfan TEMİZEL and Didem AYDINÇAKIR	113
The relation of seismic velocity and attenuation pattern in the East Anatolian fault zone with earthquake occurrence: Example of January 24, 2020 Sivrice earthquakeŞakir ŞAHİN and Erdiñç ÖKSÜM	141
Geological characteristics of the boundary between Bolkardağı-Bozkır Units and the Ulukışla Basin and the structural evolution of the region, Central Taurides, TurkeyTolga ESİRTGEN and Veysel IŞIK	163
Natural and cultural heritage integration and geoconservation recommendatory of the Nemrut-Süphan proposed geopark area, Bitlis-TurkeyYahya ÇİFTÇİ and Yıldırım GÜNGÖR	191
The effect of urban heat island on groundwater located in shallow aquifers of Kütahya city center and shallow geothermal energy potential of the region, TurkeyAli Samet ÖNGEN and Zeynel Abidin ERGÜLER	217
Beneficiation and flowsheet development of a low grade iron ore: A case studyÖzgür ÖZCAN, Ahad AGHLMANDI HARZANAGH, Eren Caner ORHAN and Şevket Levent ERGÜN	235
Petrography and geochemical decomposition parameters of crystalline rocks; Demirköy intrusive body (DIB), NW TurkeyEzgi ULUSOY and Yusuf Kağan KADIOĞLU	253
Systematic and biostratigraphic evaluation of the Late Cretaceous benthic foraminiferal assemblages of southeastern BatmanDerya SİNANOĞLU	267
Bulletin of the Mineral Research and Exploration Notes to the Authors.....	295

OWNER ON BEHALF OF MTA GENERAL DIRECTORATE**GENERAL DIRECTOR**

Yasin ERDOĞAN

EXECUTIVE PUBLICATION EDITORIAL BOARD

Şule GÜRBOĞA (Chairman)

Leyla ŞAHİN

Oğuz ALTUN

Recep GÜNEY

Neşe OYAL

Selim ÖZALP

Deniz TIRINGA

EDITOR-IN-CHIEF

Halim MUTLU (Ankara-Turkey)

ASSOCIATED EDITORS

Orhan R. ABBASOV (Azerbaijan)

Sinan AKISKA (Ankara-Turkey)

Oğuz ALTUN (Ankara-Turkey)

Mustafa Can CANOĞLU (Sinop-Turkey)

Xi-Jie CHEN (Beijing-China)

Aydın ÇİÇEK (Ankara-Turkey)

Fuat ERKÜL (Antalya-Turkey)

Mustafa Batuhan ERTEKİN (Ankara-Turkey)

Ranjith Pathegama GAMAGE (Monash-Australia)

Sevda DEMİR (Ankara-Turkey)

Recep GÜNEY (Ankara-Turkey)

Alper GÜRBÜZ (Niğde-Turkey)

Olca İNANÇ (Ankara-Turkey)

Doğan KALAFAT (İstanbul-Turkey)

Sándor KELE (Budapest-Hungary)

Cumhur Özcan KILIÇ (Ankara-Turkey)

Onur Eser KÖK (Hatay-Turkey)

David LENTZ (New Brunswick-Canada)

Robert MORITZ (Genève-Switzerland)

Eren PAMUK (Ankara-Turkey)

Neşe OYAL (Ankara-Turkey)

Semiha ÖNCÜ (Ankara-Turkey)

Selim ÖZALP (Ankara-Turkey)

Ayşe ÖZDEMİR (Van-Turkey)

Ökmen SÜMER (İzmir-Turkey)

Leyla ŞAHİN (Ankara-Turkey)

Pınar ŞEN (Ankara-Turkey)

Deniz TIRINGA (Ankara-Turkey)

Ergül YAŞAR (Hatay-Turkey)

ADVISORY BOARD

Erdin BOZKURT (Ankara-Turkey)

Osman CANDAN (İzmir-Turkey)

Ahmet GÖKÇE (Sivas-Turkey)

M. Cemal GÖNCÜOĞLU (Ankara-Turkey)

Nilgün GÜLEÇ (Ankara-Turkey)

Cahit HELVACI (İzmir-Turkey)

Kamil KAYABALI (Ankara-Turkey)

Nuretdin KAYMAKÇI (Ankara-Turkey)

Aral İ. OKAY (İstanbul-Turkey)

Cengiz OKUYUCU (Konya-Turkey)

Osman PARLAK (Adana-Turkey)

Okan TÜYSÜZ (İstanbul-Turkey)

İbrahim UYSAL (Trabzon-Turkey)

Taner ÜNLÜ (Ankara-Turkey)

Yücel YILMAZ (İstanbul-Turkey)

EDITORIAL BOARD

Peyman AFZAL (İran)

Funda AKGÜN (İzmir-Turkey)

Mehmet ARSLAN (Trabzon-Turkey)

Serdar BAYARI (Ankara-Turkey)

Yavuz BEDİ (Ankara-Turkey)

Ömer BOZKAYA (Denizli-Turkey)

Emin CANDANSAYAR (Ankara-Turkey)

Ömer Faruk ÇELİK (Kocaeli-Turkey)

Emin ÇİFTÇİ (İstanbul-Turkey)

Atilla ÇİNER (İstanbul-Turkey)

Cengiz DEMİR (Trabzon-Turkey)

Harald DILL (Germany)

Mustafa Nuri DOLMAZ (İsparta-Turkey)

Bayram ERÇIKDI (Trabzon-Turkey)

Semih ERGİNTAV (İstanbul-Turkey)

Yağın ERSOY (İzmir-Turkey)

Yener EYÜBOĞLU (Trabzon-Turkey)

Mustafa FENER (Ankara-Turkey)

Marie-Beatrice FOREL (France)

Yurdal GENÇ (Ankara-Turkey)

Klaus GESSNER (Germany)

Candan GÖKÇEOĞLU (Ankara-Turkey)

Muhittin GÖRMÜŞ (Ankara-Turkey)

Levent GÜLEN (Sakarya-Turkey)

Talip GÜNGÖR (İzmir-Turkey)

Zülfü GÜROCAK (Elazığ-Turkey)

Semih GÜRSU (Muğla-Turkey)

Nurullah HANILÇI (İstanbul-Turkey)

Murat HATİPOĞLU (İzmir-Turkey)

Zihni Mümtaz HİSARLI (İstanbul-Turkey)

James JACKSON (England)

Yusuf Kağan KADIOĞLU (Ankara-Turkey)

Selahattin KADİR (Eskişehir-Turkey)

Reyhhan KARA GÜLBAY (Trabzon-Turkey)

Volkan KARABACAK (Eskişehir-Turkey)

Hüseyin KARAKUŞ (Kütahya-Turkey)

Ali İhsan KARAYİĞİT (Ankara-Turkey)

Nizamettin KAZANCI (Ankara-Turkey)

Gilbert KELLING (England)

Peter KÖNINGSHOF (Almanya)

İlkay KUŞÇU (Muğla-Turkey)

Atike NAZİK (Adana-Turkey)

Hakan NEFESLİOĞLU (Ankara-Turkey)

Roland OBERHÄNSLI (Almanya)

Bülent ORUÇ (Kocaeli-Turkey)

Vural OYAN (Van-Turkey)

Ercan ÖZCAN (İstanbul-Turkey)

Yılmaz ÖZÇELİK (Ankara-Turkey)

Sait ÖZER (İzmir-Turkey)

Nazire ÖZGEN ERDEM (Sivas-Turkey)

Oya PAMUKÇU (İzmir-Turkey)

Dimitrios PAPANIKOLAU (Greece)

Franco PIRAJNO (Australia)

Alastair H.F. ROBERTSON (İngiltere)

Ioan SEGHEDI (Romania)

Gürol SEYİTOĞLU (Ankara-Turkey)

Carlos M. De SILVA (Portugal)

Hasan SÖZBİLİR (İzmir-Turkey)

Orhan TATAR (Sivas-Turkey)

Uğur Kağan TEKİN (Ankara-Turkey)

Erhan TERCAN (Ankara-Turkey)

Tamer TOPAL (Ankara-Turkey)

Selami TOPRAK (Ankara-Turkey)

Atiye TUĞRUL (İstanbul-Turkey)

Necati TÜYSÜZ (Trabzon-Turkey)

Katsumi UENO (Japan)

M. Emin ULUGERGERLİ (Çanakkale-Turkey)

Uğur ULUSOY (Sivas-Turkey)

Timur USTAÖMER (İstanbul-Turkey)

Alaaddin VURAL (Gümüşhane-Turkey)

John WINCHESTER (England)

Hüseyin YALÇIN (Sivas-Turkey)

Nurdan YAVUZ (Ankara-Turkey)

Özcan YİĞİT (Çanakkale-Turkey)

Erdiç YİĞİTBAŞ (Çanakkale-Turkey)

Halil YUSUFUĞLU (Ankara-Turkey)

MANAGING EDITOR

Banu Ebru BİNAL (Head of the Department of Scientific Documentation and Presentation), e-posta: banu.binal@mta.gov.tr

LOCATION OF MANAGEMENT

Redaksiyon Kurulu Başkanlığı

Maden Tetkik ve Arama Genel Müdürlüğü

Genel Müdürlük Binası (A Blok)

Dumlupınar Bulvarı No: 33/A 06530 Çankaya/ANKARA

e-posta: redaksiyon@mta.gov.tr

The translations of Özdemir and Sonel was made by Mustafa Selman ARSAY; Günay was made by Ahmet YILMAZGÖZ; Ergüler, Şahin and Öksüm, Esirtgen and Işık, Çiftçi and Güngör were made by M.Kerem AVCI; Öngen and Ergüler was made by Gülsüm TURGUT; Ulusoy and Kadioğlu was made by Zehra DEVECİ ARAL; Sinanoğlu was made by Alper BOZKURT.

Bull. Min. Res. Exp. is indexed and abstracted in TR Dizin, Emerging Source Citation Index (ESCI), Scopus, The ICI Journals Master List (Copernicus), Directory of Open Access Journals (DOAJ), Open Academic Journals Index (OAJI), Georef, MIAR, EBSCO and Zoological Record.

The Bulletin of the Mineral Research and Exploration is published in three issues in a year. Each bulletin is printed in Turkish and English languages as two separate issues. The English and Turkish issues of the "Bulletin of the Mineral Research and Exploration" can be obtained from "BDT Department" free of charge, either directly or ordered by adding postage fee from the correspondence address. Typesetting and printing operations are carried out and followed by the Publication Service of the Scientific Documentation and Publicity Department. Typesetting and Print Review: Yaşar Özkan, Tuğba Uğur Aydın e-mail: bdt@mta.gov.tr

The section of "notes to the authors", format, copyright and other information can be obtained from www.mta.gov.tr as PDF files.

Printed Date: 25.08.2021

Printing House: Kuban Matbaacılık - İvedik Organize Sanayi Matbaacılar Sitesi 1514. Sokak No: 20 • Phone: 0312 395 2070 • Fax: 0312 395 3723 • www.kubanmatbaa.com

Periodical

ISSN: 0026-4563

E-ISSN: 2651-3048

© All rights reserved. This journal and the individual contributions including in the issue are under copyright by the General Directorate of Mineral Research and Exploration (MTA), and may not be reproduced, resold, and used without permission and addressing the bulletin.