

CONTENT İÇİNDEKİLER

BALKAN MINING INDUSTRY

BALKANLARDA MADENCİLİK ENDÜSTRİSİ

Border Area Deposits and the Possibilities for Joint Projects	1
<i>N. Vulkanov, S. Topalov, I. Nishkov, G. Mihaylov, T. Tzvetkov, K. Boev</i>	
Some Aspects of the Development Possibilities of Coal Industry in Bosnia and Herzegovina	9
<i>I. Ibreljić, R. Husagić, Š. Suljić</i>	
Systems for Monitoring of Electrical Energy Consumption in Mining Industry of Bulgaria	17
<i>I. Stoilov</i>	
Metallogenetic Characteristics of the Groot Fe-Ni Deposit Republic of Macedonia	23
<i>O. Spasovski, B. Doneva</i>	
Nickel, World Production and Demand	29
<i>A. Apostolikasi, E. Frogoudakis, J. Bakallbashi</i>	
Gypsum in Albania and its Near Future Development Perspective	35
<i>J. Bakallbashi</i>	
Gemstone Mining History and its Importance for Environmental Economics of the Şaphane Mountain Fire Opal Deposit (Yeni Karamanca-Şaphane-Kütahya)	41
<i>M. Hatipoğlu, N. Türk, H.B. Buzlu</i>	
Economic Productivity in Turkish Boron Mining	47
<i>A. Konuk, S. Cubukcu, S. Onder, H. Ankara</i>	
Sedimentation Problems at Main Measure Regulation Stations	55
<i>D. Danilovic, S. Eric, V.K. Maricic, B. Lekovic</i>	
Industrial Mineral Resources in Bulgaria	59
<i>P. Daskalov, K. Dedelyanova, I. Kozhuharov</i>	

MINERAL RESOURCES AND MINE GEOLOGY

MİNERAL KAYNAKLARI VE MADEN JEOLJİSİ

Petrography and Geochemistry of Lignite, Kostolac Basin, Serbia: Importance to Mining	67
<i>A. Dangić, B. Simonović, D. Dimitrijević, N. Vasić, M. Babović</i>	
Valorisation of Raw Material Resources of the Western Part of Kostolac Mining Basin	77
<i>M. Babović, B. Babić, V. Popović, J. Milošević</i>	
Reserve Estimation of Dereköy Copper Deposit Considering Feasibility of the Project	83
<i>Ö. Erdem, T. Güyagüler</i>	
New Product Development via Application of Ceramic Glaze and Decorative Techniques to Andesites of Afyon-Iscehisar	91
<i>A. Saruşık, B. Ersoy, G. Saruşık</i>	
Geochemical Study of Effects of Lignite Firing in Power Stations: Kostolac, Serbia	101
<i>A. Dangić, B. Simonović, L. Cvetković, J. Milošević</i>	

EXPLOITATION

ÜRETİM FAALİYETLERİ

Velenje Coal Mine (VCM) Mining Method and Modern Mechanized Faces <i>M. Medved, L. Golob, A. Kotnik</i>	109
Ellatzite Mine - The Biggest Open Pit Mine for Copper and Gold Production in Bulgaria and in the Balkan Peninsula <i>T. Voutov, V. Tsatsov</i>	119
Characteristics of the Open Caste Mine “South Field” <i>Z. Ilic, Z. Belacevic</i>	125
Alternative Technological Solutions in Underground Ore Mining <i>G. A. Mihaylov</i>	131
Prospects for Development of Geo-Technological Production of Copper In Situ in Bulgaria <i>V. Danov, G. Zahariev</i>	139
Underground Workings Over 13 km Total Length Serve for Ellatzite Open Pit Mine Operation <i>V. Tsatsov</i>	147
New Crushing Transport System at Copper Mine Ellazite-Med AD <i>I. Antonov, I. Vladov, K. Chobanov, A. Tomov, V. Ketipov, Y. Bozhurski</i>	151
Geo-Technological Production of Uranium In Situ – Prospects for Development in Bulgaria up to the Year 2040-50 <i>V. Danov</i>	157
The Correlation of the Technical and Technological Parameters During the Operation of the Bucket Wheel Excavator S _{ch,r} 650 <i>A. Bytyçi, E. Goskolli</i>	163
Payload Estimation of a Walking Dragline - A Case Study <i>M. Özdoğan, A. Özgenoğlu</i>	171

PROCESS ENGINEERING

CEVHER HAZIRLAMA

Modernization of the Process “Flotation of Molybdenum” in “ELLATZITE–MED” AD, Bulgaria While Incorporating a System for Management Using Information <i>K. Yonchev, T. Makedonski</i>	177
The Evaluation of the Inyoite Mineral as a Neutron Shielding Material <i>A. S. Kıpçak, E. M. Derun, M. B. Pişkin, N. Tuğrul</i>	181
The Investigation of Comminution Properties of Different Coals on Impact Crusher and Numerical Analysis <i>Y. Umucu, V. Deniz, S. Çayırılı</i>	189
Investigation by Simple and Multivariable Linear Analysis Methods of the Interrelationships between the Bond Grindability with Physicomechanical and Chemical Properties of Coals <i>V. Deniz, Y. Umucu</i>	195

Improvement of the Scheme of Flotation of Molybdenum Factory “ELLATZITE”	203
<i>B. Dikinov, I. Kunchev, V. Mehandijski</i>	
Application of Belt Filter Press LAROX PF 50 in the Conditions of Enrichment Factory ‘ELLATZITE’	207
<i>V. Mehandvijski, B. Dikinov, I. Kunchev, G. Strelkov</i>	
Use of the Waste During the Grinding of Copper Ore in the Conditions of the Company “Ellatzite–Med”, AD	211
<i>T. Makedonski</i>	
Installation for Crushing and Sorting to Get Crushed Fractions for Rail and Road Construction and for the Production of Concrete	217
<i>Y. V. Bozhurski, I. S. Antonov, A. L. Andreev</i>	
A New Approach in the Wet Separation of Quartz-Kaolin Raw Material	225
<i>M. Marinov, A. Valchev, I. Nishkov, I. Grigorova</i>	
Determination of the Optimum Conditions of Roasting and Dissolution of Chalcopyrite in SO ₂ Saturated Water	231
<i>M. Çopur, M. Kocakerim, M. Kızılca</i>	
An Overview of the Rheological Behavior of Drilling Fluids	243
<i>A. Ş. Deliormanlı</i>	
<i>Genleşmiş Kil Agregası Üretiminde Katkı Kullanımının Önemi</i>	255
Importance of Additives Use in Production of Expanded Clay Aggregates	
<i>A.Özgülven, E. Oral, H. Bayrakdar, Z.Y.Açıkgoz, L.Gündüz</i>	

ROCK ENGINEERING AND DESIGN

KAYA MÜHENDİSLİĞİ VE TASARIM

Stability Analysis of Excavations in Jointed Rocks - the Computer Program RESOBLOK	259
<i>T.Korini, V. M. Soukatchoff</i>	
Some Aspects of the Elementary Ore Pieces Statics and Kinematics in the Draw Process	269
<i>D. Anastasov</i>	
Rock Mass Properties and Evaluation of Stability of Underground Openings - Case of Rreshen-Kalimash Tunnels	273
<i>T. Korini, V. Jorgji, G. Muka, H. Sauku, S. Ristani</i>	
Stability Aspects of Excavations in Landslide Zone for a Coal mine “Suvodol” - R.Macedonia	283
<i>M. Jovanovski, J. Papic, R. Dambov, I. Peshevski</i>	
Project for Observation of the Deformations of the Massif in Mine Ellatzite	291
<i>I. Ivanov, G. Royalski</i>	
Evaluation of Underground High Pressure Gas Storage Plants in Granite Rock	299
<i>A. Özarlan, O. Taşçakmak</i>	
Application of the Umbrella Arch Method in İstanbul (Turkey) Metro Project	311
<i>H. Denek, Y. Özçelik</i>	
Examination of Drilling Rate Index (DRI) of Rocks	321
<i>H. Yenice, M. K. Özfirat, B. Kahraman, M. V. Özdoğan</i>	

<i>Türkiye 'deki Bazı Doğaltaş Ocaklarında Zincirli Kollu Kesici Uygulamaları ve Ocak Üretimine Etkileri</i>	329
Chain Saw Machine Applications at Some Natural Stone Quarries in Turkey and its Effects on Quarry Productivity	
<i>İ. C. Engin, E. Özkan</i>	
Smooth Blasting an Effective Method for Rocks Blasting with Explosives	339
<i>I. Nako, V. Jorgji, T. Korini, A. Bakiu</i>	
Controlled Blasting with Demolition Agent	345
<i>R. Dambov, R. K. Stefanovska, I. Dambov</i>	
New Ecological Technologies for Hole Blasting in Opencast Mines and Quarries	349
<i>G. Georgiev, G. Kamburova</i>	
Mining Solution for Works on a Pressure Penstock in the Pumped Storage Hydropower Plant Avče – Slovenia	355
<i>M. Hudej, M. Ranzinger, I. Pecovnik</i>	
Estimating the Los Angeles Abrasion Loss of the Aggregates from Bedrock Properties	361
<i>I. Ugur, S. Demirdag, H. Yavuz</i>	
Numerical Modeling for the Determination of Umbrella Arch and Face Bolt Effects on the Ground Settlement Induced by Urban Shallow Tunneling	371
<i>C.O. Aksoy, T. Onargan, A. Güney</i>	
<i>İzmir Metrosu 2. Aşama İnşaatındaki Kayaların Özelliklerinin İncelenmesi ve Karşılaşılan Kısıtlamalar</i>	379
Investigation of Rock Properties in 2nd Stage of Izmir Metro Construction and Restrictions	
<i>V. Özacar, C. O. Aksoy</i>	
The Prediction of Coal Bond Work Index Values by Using Point Load Index and Shore Hardness	385
<i>Y. Umucu, N. Sengun, R. Altindag, S. Sarac</i>	
<i>Zayıf Kaya Kütlelerinde Oluşturulan Dairesel Açıklık Aynası Etrafındaki Deformasyonların Tahmini</i>	391
Prediction of the Deformations Around the Face of an Circular Opening in Weak Rock Mass	
<i>H. Basarir</i>	
<i>Üç Eksenli Sünme Test Aparatı Tasarımı</i>	401
Design of the Triaxial Creep Test Apparatus	
<i>D. Arıkan, M.G. Şenyur</i>	
Technology of Benches Cutting at Final Slopes of High Waste Dumps at Cerovo 1	407
<i>R. Lekovski, L. Obradovic, A. Kostov</i>	
COMPUTER APPLICATIONS IN MINING AND PROCESSING	
MADENCİLİK VE CEVHER HAZIRLAMADA BİLGİSAYAR UYGULAMALARI	
Cluster Analysis of Copper Ore Types by Neural Networks in Aid of Mine Operations Planning	413
<i>V. Hristov, S. Topalov</i>	

Mathematical Model and Computer-Aided Optimization Strategy of the Methane Drainage Network	419
<i>G.B. Babut, R.I. Moraru</i>	
Data Collection, Visualization and Analysis in the Mining Factories	427
<i>S. Lyubenov</i>	
Introducing the Fuzzy Logic Control at the Information Management System of the “Rudnik” Mine Flotation Plant	437
<i>I. Miljanovic, S. Vujic, M.J. Pejović</i>	
NETPRO/Mine: An Integrated Resource Modelling, Mine Design and Automation Software	443
<i>A. E. Tercan, S. Anaç, S. Ak, B. Ünver, M. A. Hindistan, S. Gazel, H. Ulaş</i>	
Determination of Particle Size and Shape Characteristics of Quartz Sands	449
<i>I. Kursun</i>	
Robust Systems for Surveillance and Management at Open Pit Mines	459
<i>S. Vujčić, I. Miljanović, S. Boševski, T. Benović, M. J. Pejović, A. Milutinović</i>	
MANAGEMENT AND MINING ECONOMICS	
İŞLETME VE MADEN EKONOMİSİ	
Economic Trends in Bulgarian Mining Industry Development	467
<i>V. Velev, I. Nishkov, I. Grigorova, B. Denev</i>	
Information System for Quality Monitoring and Management During Coal Mining	471
<i>Y. Anastasova, D. Anastasov, N. Yanev, K. Ivanov</i>	
Ore Reserves and Mineral Production in European Union	475
<i>Ş. Şafak, İ.H. Kırşan, E. Ertürk, M. Şahiner</i>	
Statistical Quality Control of Thicknesses of Plates Cutting from Diamond Circle Saw Block Cutter Machine	481
<i>H. Ankara, A. Değerli, S. Yerel</i>	
<i>Genleşmiş Kil Agregası Üretim Maliyetinin Hesaplanması</i>	487
Cost Evaluation of Expanded Clay Production	
<i>A. Özgüven, L. Gündüz</i>	
Application of Input-Output Analysis in Corporate Enterprises of EPIS Thermal Power Sector	491
<i>S. Maksimovic, Z. Milinovic, I. Miljanović, S. Boševski, M. Hudej, T. Benović</i>	
Efficiency Assessment of Cyclic Flow Conveyor System in the Assarel Mine, Bulgaria	499
<i>L. Tsotsorkov, D. Nikolov, M. Mihailov, N. Bekiarov</i>	
Evaluation and Actions that can Assure a Stable Management of the Open Pit Mine “ELLATZITE”-Main Elements, Measures of the Success	509
<i>G. Petrov</i>	
Developing Sustainability	513
<i>S. Göncüoğlu</i>	
Assessment of Quality of the Plates Using Single Linkage Cluster Method	519
<i>S. Yerel, H. Ankara</i>	

Availability Analysis of Mining Machines-A Case Study of a Dragline <i>S. Eleveli, N. Uzgören, Ö. Uysal</i>	525
The World War Two Turkish Chrome Sales <i>M. Önsoy</i>	531

VENTILATION AND SAFETY

HAVALANDIRMA VE İŞ GÜVENLİĞİ

IT Application for the Occupational Health and Safety Integrated Management System <i>G. D. Vasilescu, L. Popescu, T. A. Csaszar, D. Cioclea</i>	543
The Effect of Atmospheric Pressure on Methane Release: A Case Study <i>S. Demirovic, S. Gutic</i>	549
Preventing Spontaneous Combustion Using Zinc Chloride Inhibitor at Lonea Mine Unit <i>I. Toth, D. Cioclea, L. Toth</i>	555
Optimizing the Location of Structures Used for Regulating and Driving Air <i>I. Gherghe, L. Jurca, C. Lupu, D. Cioclea, C. Boantă</i>	563
Numerical Prediction of Fan Parameters in Mine Air Controlled Recirculation Systems <i>R.I. Moraru, G.B. Babut</i>	567
Management of the Ventilation Network of Paroşeni Mine During Accidental Stoppage of the Main Ventilation Station <i>D. Cioclea, C. Lupu, L. Jurca, I. Toth, I. Gherghe, C. Boantă</i>	571
<i>Metan Drenajının İşletme Performansı Üzerindeki Etkilerinin Araştırılması</i> Investigating the Effects of Methane Drainage on the Operating Performances of Mines <i>G. Aydın, İ. Karakurt, K. Aydın</i>	575
<i>Maden Havasındaki Metanın Oksidasyonu ile Enerji Üretimi</i> Energy Production by Oxidation of Mine Ventilation Air <i>İ. Karakurt, G. Aydın, K. Aydın</i>	585

MINING AND ENVIRONMENT

MADENCİLİK VE ÇEVRE

Tailings Dam “Benkovski 2” – Perspectives for Development of the Equipment <i>S. Dimitrov, G. Boyadjiev</i>	593
Anthropogenic Influence of the Open Pit Mining and Land Reclamation in the National Park Environment <i>I. Miljanović, T. Benović, M. Hudej, S. Maksimović, S. Boševski, M. J. Pejović</i>	601
Technical and Biological Reclamation of the Topolnica Tailing Dump <i>R. Dambov, O. Spasovski, Z. Gocev</i>	609
Emergency Risk Situation and Risk Reduction at Four Albanian Tailing Dams <i>B. Shushku, E. Goskolli</i>	615
Improvement in the Explosives of ANFO Type with the Purpose of Decrease in the Toxic Emissions and Increase in the Energy Parameters <i>G. Kamburova</i>	621

Abandoning Production in the Kanižarica Mine and Restructuring the Exploitation Area– A Case of Good Practice	627
<i>J. Šporin, Ž. Vukelić, S. Grdišič, J. Matekovič, Ž. Sternad</i>	
On Cleaning of Mining Waste Waters	635
<i>T. Lorand, L. Csaba, D. Ciprian</i>	
<i>Kömür Açık İşletmelerinde Optimum Arazi Rehabilitasyon Yönteminin Belirlenmesi</i>	641
Determination of Optimum Rehabilitation Method in Open Pit Coal Mines	
<i>M.S. Delibalta</i>	
<i>CBS ve UA Kullanılarak Muğla Mermer Ocaklarının Çevresel Etkilerinin Belirlenmesi</i>	653
Determining the Environmental Impacts of the Marble Quarries in Mugla by Using GIS and RS	
<i>K. Koruyan, A. H. Deliormanlı, E. Yalçın, V. Tecim, Z. Karaca</i>	
Selection of the Method of Coal Exploitation According to the Environmental Protection Criteria	661
<i>M. Grujic, P. Rybar, J. Engel</i>	
Heavy Metals in the Water of The River Kalnistanska and the Vicinity	667
<i>O. Spasovski, R. Dambov</i>	
<i>Harşit (Giresun) Granitlerinin Mineralojik - Petrografik Analizi ve Granitlerin Bina Malzemesi Olarak Kullanımı için Doğal Radyoaktivite Seviyesinin İncelenmesi</i>	671
Investigation of Harşit (Giresun) Granites Mineralogical- Petrography Analysis and the Level of Natural Radioactivity of Granites Used as Building Materials	
<i>M. Çapik, A.O. Yılmaz, M. Vıcal</i>	
HISTORY AND MINE EDUCATION	
TARİH VE MADENCİLİKTE EĞİTİM	
Urfa (Harran) Bazda Ancient Underground Marble Quarrying	683
<i>S. Kulaksız, C. Ağan</i>	
<i>Müzelerin Eğitime Katkısı: “Kütahya Jeoloji Müzesi”</i>	689
Educational Contribution of Museums: “The Geological Museum of Kütahya”	
<i>A. Haşimoğlu, B. Yeşil</i>	
Authors Index / Yazarlar Dizini	699