

World Multidisciplinary Earth Sciences Symposium (WMESS 2019)

IOP Conference Series: Earth and Environmental Science
Volume 362

Prague, Czech Republic
9 – 13 September 2019

Part 1 of 2

Editors:

Isik Yilmaz
Marian Marschalko

Marian Drusa
Gergana Antova

ISBN: 978-1-7138-0158-0
ISSN: 1755-1307

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

This work is licensed under a Creative Commons Attribution 3.0 International Licence.
Licence details: <http://creativecommons.org/licenses/by/3.0/>.

No changes have been made to the content of these proceedings. There may be changes to pagination and minor adjustments for aesthetics.

Printed with permission by Curran Associates, Inc. (2020)

For permission requests, please contact the Institute of Physics
at the address below.

Institute of Physics
Dirac House, Temple Back
Bristol BS1 6BE UK

Phone: 44 1 17 929 7481
Fax: 44 1 17 920 0979

techtracking@iop.org

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2633
Email: curran@proceedings.com
Web: www.proceedings.com

TABLE OF CONTENTS

PART 1

CALCULATION OF CEMENTATION EXPONENT AND MULTIPLIER USING P-WAVE VELOCITY AND POROSITY FOR SANDSTONE RESERVOIRS	1
<i>Abdel Moktader A. El Sayed, Nahla A. El Sayed</i>	
HYDRAULIC - ELECTRICAL FLOW UNITS AND WATER SATURATION CALCULATION: DAM FORMATION, SOUTH WESTERN QATAR, ARABIAN GULF	10
<i>Nahla A. El Sayed, Abdel Moktader A. El Sayed</i>	
URBAN GREEN NETWORK - SYNTHESIS OF ENVIRONMENTAL, SOCIAL AND ECONOMIC LINKAGES IN URBAN LANDSCAPE	19
<i>Anna Danuta Zareba, Alicja Edyta Krzeminska, Anna Dzikowska</i>	
SULPHATE ION INTERFERENCE ON OIL RECOVERY MECHANISM OF LOW SALINITY WATERFLOODING IN DOLOMITE RESERVOIRS	28
<i>Chanapol Charoentanaworakun, Falan Srisuriyachai</i>	
ESTABLISHING A MODEL TO REDUCE THE RISK OF PREMATURE MINE CLOSURE	37
<i>Mahdi Poursmaeli, Morteza Osanloo</i>	
GEOHERMAL WATERS IN THE AREA BETWEEN GUVENDIK AND MALGAÇEMIR (AYDIN), WESTERN ANATOLIA, TURKEY	49
<i>Nevzat Ozgur, Seda Zehra Tekkanat</i>	
HYDROGEOLOGICAL CONCEPTUAL MODEL OF GEOHERMAL WATERS IN BAKLACI (ALASEHIR, MANISA), WESTERN ANATOLIA, TURKEY	55
<i>Nevzat Ozgur, Ezgi Yuruk Anilir</i>	
HYDROGEOLOGICAL CONCEPTUAL MODELLING OF GEOHERMAL WATERS OF IVRINDI-ILICA-GUMELI (BALIKESIR), TURKEY	59
<i>Nevzat Özgür, Enver Kermen</i>	
RELATIONSHIP BETWEEN COMPOSITIONS OF GREY HAIR-GRASS (CORYNEPHORUS CANESCENS (L.) P. BEAUV.) TISSUES AND SOIL PROPERTIES DURING PRIMARY VEGETATION SUCCESSION	64
<i>Oimahmad Rahmonov, Jacek Rozkowski, Artur Szymczyk</i>	
IS THE VEGETATION SUCCESSION A THREAT FOR RARE AND PROTECTED SPECIES IN A SAND QUARRY? CASE STUDY OF THE KUZNICA WAREZYNSKA SAND QUARRY (SOUTHERN POLAND)	73
<i>Oimahmad Rahmonov, Jacek Rozkowski, Artur Szymczyk</i>	
APPLICATION OF EXTENDED HABITAT SUITABILITY CURVES FOR DEPTH IN NITRICA RIVER	82
<i>Peter Ivan, Zuzana Stefunkova</i>	
THE GENESIS OF THE MESOZOIC ALKALINE INTRUSIONS OF THE KHOKHOI ORE FIELD (UPPER AMGA GOLD-MINING DISTRICT, ALDAN SHIELD, NORTH ASIAN CRATON)	89
<i>Alexey Ivanov, Alexander Kravchenko, Evgeny Loskutov, Larisa Kondratieva, Anatolii Zhuravlev, Michil Ivanov</i>	
ANALYSIS OF MAXIMUM RUNOFF VOLUMES WITH DIFFERENT TIME DURATIONS OF FLOOD WAVES: A CASE STUDY ON TOPL'A RIVER IN SLOVAKIA	100
<i>Veronika Bacova Mitkova, Pavla Pekarova</i>	
THE CHANGES OF WATER BALANCE IN THE EASTERN SLOVAKIA	110
<i>Marcel Garaj, Pavla Pekarova, Jan Pekar, Pavol Miklanek</i>	
THERMOELECTRICAL ELEMENT OF EARTH'S CRUST	120
<i>Arkadiy Nikolaevich Dmitriev</i>	
PREDICTING WEATHERING CHARACTERISTICS OF CARBONATE ROCKS UNDER DIFFERENT GEO-ENVIRONMENTAL CONDITIONS	129
<i>Hasan Arman, Saber Hussein, Haneen Edhar Y Abouhaligah, Malaz Osman, Moza A Baloch, Diab Bakri Abdelrahman Hag, Hamdan Abdo Ali Algaishi</i>	
THE AQUIFER RECHARGE POTENTIAL BY INFILTRATION TESTS IN ARID REGION, RAS AL KHAIMAH, UNITED ARAB EMIRATES	142
<i>Ahmed Murad, Saber Hussein, Hasan Arman, Amir Gabr, Abdulla Al Dhuhoori</i>	
A THOROUGH STUDY FOR PAHS IN DUMP MATERIALS FROM OPEN-PIT LIGNITE MINING, MARITSA IZTOK BASIN, BULGARIA	152
<i>Stefan Marinov, Maya Stefanova, Zlatka Milakovska, Achim Bechtel</i>	

DESCRIPTION CRITERIA FOR EOCENE ALVEOLINIDS: EXAMPLES FROM INNER WESTERN ANATOLIA	157
<i>Alper Bozkurt, Muhittin Gormus</i>	
BENTHIC FORAMINIFERA OF THE MAASTRICHTIAN SEDIMENTS FROM THE MALIBOGAZI (KALECIK, ANKARA) AND IRMAK (KIRIKKALE) AREAS IN TÜRKIYE	163
<i>Muhittin Gormus, Hacer Akoraler</i>	
HERITAGE OF THE POLISH CENTRAL INDUSTRIAL DISTRICT - NEW CITIES	173
<i>Anna Sikora</i>	
PASSIVE SEISMIC TOMOGRAPHY AS A TOOL OF ROCK BURST HAZARD PROGNOSIS IN COPPER ORE MINE IN POLAND	182
<i>Anna Barbara Gogolewska, Daria Smolak</i>	
FACTORS INFLUENCING ROCK BURST HAZARD IN DEEP COPPER ORE MINE, SW POLAND	192
<i>Anna Barbara Gogolewska, Jagoda Strzeszynska</i>	
IMPLEMENTATION OF A GIS-BASED PILOT APPLICATION FOR ROADS MANAGEMENT APPLIED TO THE CONSERVATION AND MAINTENANCE OF UNPAVED LOW TRAFFIC ROADS	202
<i>Johnny Vega, Mario Rodriguez, Luisa Alarcon</i>	
FOUNDATION OF THE BUILDING ON SHORT CONCRETE PILES IN A THIN LAYER OF NON-COHESIVE SOILS	212
<i>Piotr Gaska, Grzegorz Straz</i>	
ATTENUATION OF MACROSEISMIC INTENSITY FOR CRUSTAL ROMANIAN EARTHQUAKES: CALIBRATING THE BAKUN-WENTWORTH'S METHOD	219
<i>Eugen Oros, Anica Otilia Placinta, Mihaela Popa, Maria Rogozea, Daniel Paulescu</i>	
SYNTHESIS OF ULTRAFINE FE-W-AL-TI-NI-C-B POWDERS BY MECHANICAL ALLOYING	229
<i>Mikheil Chikhradze, Guram Abashidze, Nikoloz Chikhradze, David Tsverava, Kinga Stecula</i>	
STUDY ON WATER-SAND INRUSH MECHANISM FOR MINING UNDER PORE WATER IN CHINA	236
<i>Herong Gui, Jun Li, Huili Qiu, Hongxia Fang, Hao Yu, Meichen Wang</i>	
PROPOSAL OF PREVENTION MEASURES AGAINST DROUGHT IN URBAN AREAS	244
<i>Andrej Soltész, Michaela Cervenanska, Katarina Zivcova, Jakub Mydla, Daniel Bucek, Richard Honti</i>	
ANALYSIS OF IMPLEMENTATION CONDITIONS UNDER DIFFICULT GEOTECHNICAL CONDITIONS USING THE SWOT ANALYSIS	251
<i>Marcin Gajzler, Piotr Nowotarski</i>	
MAIN FEATURES OF YAKUTITES FROM THE EBELYAKH PLACER	260
<i>Sargylana Ugapeva, Valentine Afanasiev, Anton Pavlushin, Aleksandr Eliseev</i>	
EFFECT OF SODIUM BORON HYDRIDE (NABH₄) ON WASTE POLYETHYLENE TEREPHTHALATE PYROLYSIS	266
<i>Mikail Olam, Huseyin Karaca</i>	
STATISTICAL ANALYSIS OF WORKPLACE ACCIDENTS IN POLISH MINING INDUSTRY	274
<i>Pawel Strzalkowski</i>	
PLANNING TOOLS FOR AGRICULTURAL TERRITORY IN BULGARIA	284
<i>Milena Moteva, Desislava Parashkevova</i>	
STUDY OF CLEANING THE HORIZONTAL DRAINS DURING THE UNDER BALANCED DRILLING WELL IN THE SOUTH ALGERIA FIELDS	294
<i>Khaled Benyounes, Abderrahmane Mellak, Amin Flih, Youcef Azizi</i>	
ANALYSIS OF THE EFFECTS OF THE POSITION OF THE AIR DUCT SUPPLYING FRESH AIR TO THE WORKING FACE OF THE MINED DOG HEADING ON METHANE CONCENTRATION LEVELS	302
<i>Magdalena Tutak, Jaroslaw Brodny</i>	
ANALYSIS OF THE CONSEQUENCES OF METHANE COMBUSTION IN A MINED DOG HEADING	311
<i>Magdalena Tutak, Jaroslaw Brodny</i>	
HYDROGEOLOGICAL FEATURES OF GEOTHERMAL WATERS IN HAVRAN (BALIKESIR), TURKEY	320
<i>Mehmet Arici, Nevzat Ozgur, Zehra Ugurlu</i>	
TYPOMORPHISM OF FINE PLACER GOLD AND POTENTIAL PRIMARY SOURCES OF THE ANABAR MINERAL SUBPROVINCE (NORTH-EASTERN SIBERIAN PLATFORM)	325
<i>Boris Gerasimov</i>	
PRACTICAL APPLICATION OF A HORIZONTAL INTRAPLATE VELOCITY FIELD MODEL FOR THE TERRITORY OF BULGARIA	334
<i>Yuri Tsanovski, Tsocho Danchev</i>	

MINERALOGICAL FEATURES OF ULTRAHIGH PRESSURE IMPACT GLASSES OF THE KARA ASTROBLEME (PAY-KHOY, RUSSIA)	342
<i>Tatyana Shumilova, Alexandr Zubov, Sergey Isaenko, Svetlana Shanina</i>	
PHASE COMPOSITION AND MICROSTRUCTURE OF UHPHT VEIN GLASS FROM GIANT DIAMONDFEROUS KARA IMPACT CRATER BY RAMAN MAPPING	350
<i>Tatyana Shumilova, Sergey Isaenko</i>	
VARIETIES OF IMPACTITES AND IMPACT DIAMONDS OF THE KARA METEORITE CRATER (PAY-KHOY, RUSSIA)	358
<i>Tatyana Shumilova, Nadezhda Maximenko, Alexandr Zubov, Natalya Kovalchuk, Vasily Ulyashev, Viktoria Kis</i>	
IMPACT OF BIOCHAR ON SOIL WATER CONTENT AND ELECTRICAL CONDUCTIVITY	366
<i>Maciej Gliniak, Jakub Sikora, Urszula Sadowska, Agnieszka Klimek-Kopyra, Agnieszka Latawiec, Maciej Kubon</i>	
IMPACT OF BIOCHAR ON SOIL TEMPERATURE	371
<i>Maciej Gliniak, Jakub Sikora, Urszula Sadowska, Agnieszka Klimek-Kopyra, Agnieszka Latawiec, Maciej Kubon</i>	
IMPACT OF BIOCHAR ON WATER RETENTION IN SOIL	375
<i>Maciej Gliniak, Jakub Sikora, Urszula Sadowska, Agnieszka Klimek-Kopyra, Agnieszka Latawiec, Maciej Kubon</i>	
MITIGATION EFFECTS OF A WATER BARRIER ON DYNAMIC LOADS ON THE HUMAN BODY AT EXPLOSIONS IN TUNNELS	380
<i>Nika Bochorishvili, Edgar Mataradze, Nikoloz Chikhradze, Karlo Tavlalishvili, Mikheil Chikhradze, Irakli Akhvlediani</i>	
CHARACTERISTICS OF SEDIMENTS IN A CHANGING ENVIRONMENTAL CONDITIONS IN VISTULA LAGOON (POLAND)	387
<i>Ewa Szymczak</i>	
ADSORPTION OF LEAD ON AGRICULTURAL LAND AT ŽITNÝ OSTROV (SLOVAKIA)	397
<i>Viera Kovacova</i>	
RESPONSE OF THE DIATOM FLORA OF THE HEL PENINSULA VICINITY, PUCK BAY, BALTIC SEA, TO ANTHROPOPRESSURE	407
<i>Dominika Hetko, Jaroslaw Pedzinski, Malgorzata Witak</i>	
GEOSTATISTICAL MODELING BY THE ORDINARY KRIGING IN THE ESTIMATION OF MINERAL RESOURCES ON THE KIESELGUHR MINE, ALGERIA	416
<i>Lamamra Abdessattar, Neguritsa Dimitriy, Mazari Messaoud</i>	
SELECTED CHARACTERISTICS OF ATMOSPHERIC PRECIPITATION ON THE POLISH COAST OF THE BALTIC SEA	426
<i>Mirosława Malinowska</i>	
KIMBERLITE GENESIS ACCORDING TO DATA ON HOT ACCRETION OF THE EARTH	433
<i>Vladimir Shkodzinskiy</i>	
RELIABILITY OF THE DIGITAL SEA BOTTOM MODEL SOURCED BY MULTIBEAM ECHOSOUNDER IN SHALLOW WATER	443
<i>Artur Makar</i>	
REFRACTION CORRECTION OF THE ACOUSTIC WAVE IN MULTIBEAM SYSTEMS	451
<i>Artur Makar</i>	
COMPARISON OF THE DISCHARGE AND FLOW VELOCITY VALUES DETERMINED BY ADV DEVICE AND INDICATOR METHOD	459
<i>Radoslav Schugerl, Yveta Veliskova, Tatiana Kimlickova</i>	
MACROSEISMIC INTENSITY ESTIMATION FROM INSTRUMENTAL GROUND MOTION RECORDINGS IN THE CASE OF SMALL AND MODERATE VRANCEA SUBCRUSTAL EARTHQUAKES	470
<i>Moldovan Iren Adelina, Constantin Angela Petruta, Ardeleanu Luminita, Ionescu Constantin, Grecu Bogdan, Manea Liviu Marius, Toma Danila Dragos, Toader Victorin-Emilian, Partheniu Raluca, Manea Elena Florinela, Tiganescu Alexandru, Placinta Anica Otilia</i>	
TESTING AND DEVELOPING THE MACROSEISMIC INTENSITY ATTENUATION RELATIONSHIPS FOR THE VRANCEA (ROMANIA) CRUSTAL EARTHQUAKES	480
<i>Constantin Angela Petruta, Moldovan Iren-Adelina, Partheniu Raluca, Manea Elena Florinela, Ionescu Constantin</i>	
NEXT GENERATION SEQUENCING DATA AND ITS COMPRESSION	490
<i>Bruno Carpentieri</i>	
ECONOMICAL ASPECT OF SENSITIVE FLAT ROOF RENOVATION	499
<i>Marek Kervitcer, David Beckovsky, Lukas Janda, Vladimir Tichomirov</i>	
MOBILITY BEHAVIOR AND ENVIRONMENTAL IMPLICATIONS OF TRACE ELEMENTS ASSOCIATED WITH SUBURBAN SOILS FROM THE STEEL INDUSTRY	505
<i>Olga Sestanova, Jozef Hanculak, Tomislav Spaldon, Gesperova Danka</i>	
PATTERNS OF FORMING THE URBAN SURFACE DEPOSITED SEDIMENTS	513
<i>Andrian Seleznev, Iliya Yarmoshenko, Georgy Malinovskiy, Maxim Rudakov, Anastasia Ryanskaya, Daria Kiseleva, Tamara Gulyaeva</i>	

GEOPHYSICAL METHODS OF IDENTIFICATION OF ORE CONTROL STRUCTURES OF OROGENIC GOLD DEPOSITS IN LOW-CONTRAST TERRIGENOUS ROCKS BY PETROPHYSICAL CHARACTERISTICS.....	521
<i>Evgeny Solovyov, Valery Fridovsky, Denis Savvin</i>	
DEVELOPMENT OF MINING PROCESSES WITH REGARD TO LIMITS CORRECTION.....	527
<i>Vaclav Pilny, Eliska Fiedlerova, Andrea Mokrosova</i>	
ISOTOPIC-GEOCHEMICAL CHARACTERISTICS OF QUARTZ AND PYRITE IN THE UPPER CARBONIFEROUS ROCKS OF SOUTH VERKHOYANYE, NORTHEAST RUSSIA: AN INSIGHT INTO THE GENESIS OF VEINLET-DISSEMINATED MINERALIZATION	532
<i>Lena I. Polufuntikova, Valery Yu. Fridovsky, Gennadiy N. Gamyarin</i>	
MIDDLE PALEOZOIC BASITES OF THE NAKYN KIMBERLITE FIELD	540
<i>Michail D. Tomshin, Albina G. Kopylova, Sargylana S. Gogoleva</i>	
MAPPING OF INDUCED EFFECTS OF AN EARTHQUAKE IN THE REGION OF ALGIERS, ALGERIA USING THE GEOGRAPHICAL INFORMATION SYSTEM GIS	550
<i>O. Sadou, H. Bourenane, C. Louni, N. Balla, A. Haddouche</i>	
THE TRACES OF MINING IN LUBSKO (WESTERN POLAND) - PROPOSAL OF THE GEOTOURISTIC PATH	560
<i>Wojciech Kaczan</i>	
EVALUATION OF THE SOLAR RADIATION IN A SEISMIC ZONE.....	568
<i>Victorin-Emilian Toader, P. F. Biagi, Iren-Adelina Moldovan, Alexandru Marmureanu, Andrei Mihai</i>	
C-V CHARACTERIZATION AND ELECTRIC PARAMETERS OF ZRO2 RECEIVED BY UV STIMULATED PLASMA ANODIZING.....	579
<i>Z. Kushitashvili, A. Bibilashvili, V. Borisenko</i>	
RADIATION EFFECT ON THE PARAMETERS OF FIELD EFFECT TRANSISTORS WITH SCHOTTKY BARRIER ON GAAS.....	587
<i>A. Bibilashvili, Z. Kushitashvili</i>	
NEGATIVE IMPACT OF INVASIVE PLANTS ON RIVERBANK VEGETATION	593
<i>Barbora Vasekova, Zuzana Stefunkova</i>	
STATE OF NON-FINANCIAL REPORTING OF POLISH REPRESENTATIVES OF THE MINING INDUSTRY IN A SUSTAINABLE SOCIAL DIMENSION	602
<i>Justyna Wozniak, Katarzyna Pactwa</i>	
ANALYSIS OF THE DIVERSITY OF MICROSCOPIC FUNGI IN THE SOILS OF ADJARA, GEORGIA.....	613
<i>Otar Shainidze, Shota Lominadze, Guram Chkubadze, Shota Lamparadze, Nodar Beridze, Jimsher Diasamidze</i>	
EXPERIMENTAL MONITORING OF MOISTURE CONDITIONS IN THE VARIOUS TYPES OF TRACK BED STRUCTURE	623
<i>Juraj Pies, Libor Izvolt, Peter Dobes</i>	
ABOUT THE MICROSTRUCTURE OF THE GRAPTOLITE PERIDERM - EXAMPLES FROM THE HOLY CROSS MOUNTAINS (POLAND).....	631
<i>Rafal Morga</i>	
THE EXPERIMENTAL PROOF OF NON - THERMAL NATURE OF THE MECHANISM OF PULSE-PHOTON ANNEALING IN SEMICONDUCTOR MATERIALS.....	639
<i>Zurab Jibuti, Amiran Bibilashvili, Lado Jibuti, Nugzar Dolidze</i>	
RISK CHARTER FOR MEDIEVAL DEFENSIVE EARTHEN ARCHITECTURE IN SOUTHERN SPAIN	645
<i>Jesus Garrido Manrique, Maria Lourdes Gutierrez-Carrillo, Emilio Molero Melgarejo</i>	
MACHINE LEARNING METHODS FOR CLASSIFICATION OF THE GREEN INFRASTRUCTURE IN CITY AREAS.....	655
<i>Nikola Kranjic, Damir Medak, Robert Zupan, Milan Rezo</i>	
GEOCHEMICAL FEATURES OF THE COMPOSITIONS OF THE MESOZOIC IGNEOUS ROCKS OF THE KHOKHOI ORE FIELD (UPPER AMGA GOLD-MINING DISTRICT, ALDAN SHIELD, NORTH ASIAN CRATON).....	664
<i>Alexey Ivanov, Larisa Kondratieva, Evgeny Loskutov, Alexander Kravchenko, Anatolii Zhuravlev, Nikolay Ermakov</i>	
NEW DATA ON THE FORMATION CONDITIONS OF THE DYVOK ORE OCCURRENCE (SOUTH YAKUTIA, RUSSIA)	673
<i>Veronika Kardashevskaya, Galina Anisimova</i>	
THE EFFECT OF ORIENTED STRAND BOARD SUBSTRATE TREATMENTS ON THE ADHESION OF CEMENT ADHESIVES AND COATINGS.....	679
<i>Jiri Patloka, Erika Kratochvilova, Jiri Slanhof</i>	

CHANGES IN THE IDF CURVES OF SHORT-TERM RAINFALL IN MOUNTAINOUS AND LOWLAND AREAS OF SLOVAKIA	689
<i>Silvia Kohnova, Gabriel Foldes, Marija Mihaela Labat, Kamila Hlavcova</i>	
COMPARISON OF THE CURVE NUMBER METHOD (SCS-CN) MODIFICATIONS AND THE APPLICATION OF MEASURES FOR SOIL EROSION REDUCTION AND FLOOD PROTECTION IN SMALL UNGAUGED CATCHMENTS IN THE WHITE CARPATHIAN MOUNTAINS IN SLOVAKIA	699
<i>Viera Rattayova, Kamila Hlavcova, Marija Mihaela Labat, Silvia Kohnova</i>	
LEARNING FROM TRADITION: VERNACULAR BUILT HERITAGE OF MADEIRA (PORTUGAL), A SUSTAINABLE PROPOSAL	709
<i>Ana M.T. Martins, Elma Vieira, Jorge S. Carlos, Miguel C. S. Nepomuceno</i>	
SURVEY ON POST-OCCUPANCY EVALUATION OF VERNACULAR HOUSES IN MADEIRA (PORTUGAL)	719
<i>Ana M.T. Martins, Elma Vieira, Jorge S. Carlos</i>	
FROM THE CLOISTER TO THE CITY: APPROACHES TO THE CISTERCIAN LAND MANAGEMENT	727
<i>Ana M. T. Martins</i>	

PART 2

CONTRIBUTION TO THE KNOWLEDGE OF TEMPERATURE AND RESERVOIR DEPTH OF SULPHUROUS GROUNDWATER AQUIFER SYSTEMS IN THE DÃO RIVER BASIN, PORTUGAL	737
<i>da Costa Teresa Catarina Gomes, Luis M. Ferreira Gomes, Alcino Sousa Oliveira</i>	
USAGE OF COLLOIDAL GUNPOWDER RELEASED FROM UTILIZED AMMUNITION IN THE MINING INDUSTRY	747
<i>Davit Khomeriki, Sergo Khomeriki, Nikoloz Chikhradze, Davit Supatashvili, Avtandil Khvadagiani, Nikoloz Elizbarashvili</i>	
STRUCTURE AND GEOCHEMICAL FEATURES OF THE VOLCANIC ROCKS IN THE TUNGUSKA SYNECLISE (SIBERIAN TRAP PROVINCE)	754
<i>Nadezhda Krivolutskaya, Alexander Krasilnikov, Bronislav Gongalsky, Anton Yakushev, Natalia Svirskaya</i>	
ACTIVATION ENERGIES OF PHYSICALLY AND CHEMICALLY CLEAN COALS	763
<i>Mehmet Bilen</i>	
PROXIMATE AND ULTIMATE ANALYSIS BEFORE AND AFTER PHYSICAL & CHEMICAL DEMINERALIZATION	770
<i>Mehmet Bilen</i>	
REACTIVITY OF PHYSICALLY AND CHEMICALLY CLEAN COALS	777
<i>Mehmet Bilen</i>	
CORRELATION BETWEEN ASH CONTENT OF SIZE & DENSITY FRACTIONATED COAL SAMPLES AND THEIR CORRESPONDING CALORIFIC VALUES	785
<i>Serdar Yilmaz, Dilek Cuhadaroglu, Ihsan Toroglu</i>	
DOMESTIC UTILIZATION OF COAL IN ZONGULDAK-TURKEY AND UNBURNED CARBON IN ASH	792
<i>Mehmet Bilen, Serdar Yilmaz</i>	
COAL CALORIFIC VALUE AFTER PHYSICAL AND CHEMICAL CLEANING	799
<i>Serdar Yilmaz, Ihsan Toroglu, Dilek Cuhadaroglu</i>	
ANALYSIS OF GEODYNAMIC PROCESSES DEVELOPED IN GEORGIA	805
<i>Avtandil Khvadagiani, Elguja Medzmarishvili, Zurab Laoshvili, Sergo Khomeriki, Nikoloz Chikhradze, Teimuraz Kikava, Grigol Shatberashvili, Davit Khomeriki</i>	
THE CONDITIONS OF SEDIMENTATION OF GDANSK BAY SEDIMENTS (BALTIC SEA, POLAND) IN THE LIGHT OF LITHOLOGICAL FEATURES AND CARBON CONTENT	816
<i>Dorota Burska, Ewa Szymczak</i>	
THE EFFICIENCY OF P-REMOVAL FROM NATURAL WATERS WITH SORBENTS PLACED IN WATER PERMEABLE NONWOVENS	825
<i>Dorota Burska, Dorota Pryputniewicz-Flis, Agnieszka Bankowska-Sobczak, Grzegorz Brenk, Tomasz Woszczyk</i>	
LOGARITHMIC EXPRESSION OF GLOBIGERINA BULLOIDES SHELL EVOLUTION THROUGH THE BIOMETRIC ANALYSIS: PALEOCEANOGRAPHIC IMPLICATIONS FOR THE LATE QUATERNARY	835
<i>Stergios Zarkogiannis, George Kontakiotis, Assimina Antonarakou</i>	

USE OF GROUND PENETRATION RADAR (GPR) IN THE EVALUATION OF GEOLOGICAL-STRUCTURAL ELEMENTS OF ORNAMENTAL CARBONATED ROCKS - CASE STUDY IN VALINHO DE FATIMA, PORTUGAL	845
<i>Joao Duarte, Jose Carvalho, Fernando Figueiredo</i>	
A COMPARISON OF METHODS FOR CALCULATING MONTHLY FLOWS ON SMALL CATCHMENTS	852
<i>Milan Cisty, Roman Vyleta, Veronika Soldanova</i>	
INTEGRATED PALEOHYDROLOGY RECONSTRUCTION AND PLIOCENE CLIMATE VARIABILITY IN CYPRUS ISLAND (EASTERN MEDITERRANEAN)	862
<i>Efthymios Tsiolakis, Stella Tsaila-Monopoli, George Kontakiotis, Assimina Antonarakou, Mario Sprovieri, Maria Geraga, George Ferentinos, George Theodorou, Andreas Zissimos</i>	
GEOCHEMICAL PHASES OF ALUMINUM IN THE RIVER SEDIMENTS AS INDICATORS OF ITS ENVIRONMENTAL AVAILABILITY	872
<i>M. Luz Rodriguez-Blanco, M. Mercedes Taboada-Castro, M. Teresa Taboada-Castro</i>	
USING A SMALL UAV FOR NAUTICAL PORTS INVENTORY	877
<i>Dariusz Popielarczyk</i>	
DENSIFICATION OF CITIES AS A METHOD OF SUSTAINABLE DEVELOPMENT	885
<i>Janusz Pelczynski, Bartlomiej Tomkowicz</i>	
DISPERSION PROCESS IN SEWER PIPES WITH SEDIMENTS AND DEPOSITS	892
<i>Yveta Veliskova, Marek Sokac</i>	
CRYSTALLIZATION AND COOLING OF THE NORIL'SK INTRUSIONS ACCORDING TO THE PYROXEN'S GEOTHERMOMETRY DATA	902
<i>Alex Asavin, Nadezhda Krivolutskaya</i>	
REMOVAL OF HEAVY METALS IN DRINKING WATER BY IRON-BASED SORPTION MATERIALS	911
<i>Danka Barlokova, Jan Ilavsky, Michal Marton, Michal Kunstek</i>	
REMOVAL OF THM PRECURSORS BY ADSORPTION, COAGULATION AND UV IRRADIATION	923
<i>Jan Ilavsky, Danka Barlokova, Michal Marton, Ondrej Kapusta</i>	
AN ALGORITHM FOR DETERMINING UNLOADING CYCLES IN DUMP TRUCK	934
<i>Tomasz Kozlowski, Anna Michalak, Radoslaw Zimroz, Pawel Sliwinski, Tomasz Kaniewski</i>	
QUANTIFICATION OF NEURAL NETWORK UNCERTAINTIES ON THE HYDROGEOLOGICAL PREDICTIONS BY PROBABILITY DENSITY FUNCTIONS	941
<i>Nicolas Akil, Guillaume Artigue, Michael Savary, Anne Johannet, Marc Vinches</i>	
THE ANALYSIS AND ASSESSMENT OF GRAIN SIZE DISTRIBUTION ON THE EXAMPLE OF A CHOSEN GRANITE MINE	951
<i>Witold Kawalec, Robert Krol, Natalia Suchorab, Michal Szymanski</i>	
MODELLING OF WORK OF CUT AND STRETCHY SHEET IN SPAN BEAM STRUCTURES WITH THE MIXED REINFORCEMENT	959
<i>Sofiya Burchenya, Yuriy Famulyak, Justyna Sobczak-Piastka</i>	
INFLUENCE OF FREEZE-THAW TEMPERATURE ON LOAD-BEARING CAPACITY OF STEEL-CONCRETE BEAMS CARRYING TRANSVERSE LOADS	966
<i>Yuriy Famulyak, Andriy Hrytsevych, Justyna Sobczak-Piastka</i>	
ENERGY EFFICIENT PROCESSING OF GEOTHERMAL WATER FOR ENERGY-HEATING OBJECTS OF THE BUILDING INDUSTRY	974
<i>Nataliia Zhuravska, Eduard Malkin, Justyna Sobczak-Piastka</i>	
NUMERICAL MODELLING OF PLATE LOAD TESTS ON UNSATURATED SILT LOAMS IN LABORATORY STANDS	980
<i>Miroslav Broucek, Pavel Kuklik</i>	
PRODUCTION OF CORROSION-RESISTANT POLYMER CONCRETE REINFORCED WITH VARIOUS FIBERS	990
<i>Nikoloz Chikhradze, Fernand Marquis, Guram Abashidze, Davit Tserava</i>	
UNFAVOURABLE SEISMIC BEHAVIOUR OF REINFORCED CONCRETE STRUCTURES DUE TO SOIL STRUCTURE INTERACTION	1000
<i>Mircea Barnaure, Daniel Manoli</i>	
VARIATIONS IN THE GEOELECTRIC PROPERTIES OF THE ROCK MASSES AS A RESULT OF THE SEISMIC EFFECTS OF INDUSTRIAL EXPLOSIONS	1009
<i>Nicolay N. Grib, A.N. Uzbekov, V.S. Imaev, G.V. Grib, A.E. Abetov</i>	
NEW PLANKTONIC FORAMINIFERA DATA FROM THE UPPER CRETACEOUS PELAGIC LIMESTONES OF THE YUKSEKOVA COMPLEX IN THE MADEN AREA (SOUTHEAST OF ELAZIG, EASTERN TURKEY)	1016
<i>Melek Ural, Bilal Sari</i>	

MAFIC VOLCANIC AND SUBVOLCANIC ROCKS FROM THE YÜKSEKOVA COMPLEX IN THE İÇME-KESİKKÖPRÜ PROVINCE (EAST OF ELAZIG, EASTERN TURKEY): WHOLE-ROCK GEOCHEMISTRY AND CONFOCAL RAMAN SPECTROSCOPY CHARACTERIZATION	1026
<i>Melek Ural, Kıymet Deniz, Kaan Sayit</i>	
ESTIMATION OF THE DYNAMIC CHARACTERISTICS OF THE FOAM CONCRETE	1035
<i>Veronika Valaskova, Jozef Vlcek, Marian Drusa</i>	
SHAPING RELATIONS BETWEEN NATURAL AND ARTIFICIAL LANDSCAPES ON THE EXAMPLE OF SELECTED RIVERSIDE CITIES: BUDAPEST AND RZESZOW	1042
<i>Adam Rybka, Gabor Dombay, Karolina Kozłowska</i>	
RETRIEVING SPATIAL VARIATION OF LAND SURFACE TEMPERATURE BASED ON LANDSAT OLI/TIRS: A CASE OF SOUTHERN PART OF JEMBER, JAVA, INDONESIA	1050
<i>Rizqi I. Sholihah, Shozo Shibata</i>	
A PLASTIC MODEL BASED ON THE BOUNDING SURFACE FORMULATION FOR CYCLIC BEHAVIOR OF SOIL	1061
<i>Yan Zhang, Shulin Sun, Djohn Josia Weaver Mboussa</i>	
APPLYING THE CONTINGENT VALUATION METHOD IN ASSESSING URBAN PARKS: THE CASE OF NIARCHOS IN GREECE	1071
<i>Eleni Sardianou, Aikaterini Leonti</i>	
UNDERSTANDING AND MEASURING SUSTAINABILITY PERFORMANCE IN THE BANKING SECTOR	1077
<i>Athanasia Stauropoulou, Eleni Sardianou</i>	
EVALUATION OF FACTORS, INFLUENCING THE ACCURACY OF THE DIGITAL MODEL, OBTAINED BY LASER SCANNING	1087
<i>Gergana Antova</i>	
THE REUSE OF MINING AND CONSTRUCTION WASTE FOR BACKFILL AS ONE OF THE SUSTAINABLE ACTIVITIES	1096
<i>Alexander L. Ivannikov, Cheynesh Kongar-Syuryun, Jaroslaw Rybak, Yulia Tyulyaeva</i>	
THE SURFACE WAVE ATTENUATION AS THE EFFECT OF VIBRATORY COMPACTION OF BUILDING EMBANKMENTS	1105
<i>Aneta Herbut, Marat M. Khairutdinov, Cheynesh Kongar-Syuryun, Jaroslaw Rybak</i>	
THE IMPACT OF RAPID IMPULSE COMPACTION (RIC) OF LARGE NON-COHESIVE MATERIAL DEPOSITS ON THE SURROUNDING AREA	1113
<i>Przemyslaw Dobrzycki, Alexander L. Ivannikov, Jaroslaw Rybak, Vlada O. Shkodkina, Yulia Tyulyaeva</i>	
MANAGEMENT MEASURES FOR THE RESTORATION OF DEGRADED ECOSYSTEMS IN ORDER TO INCREASE BIODIVERSITY CONSERVATION IN THE TÂRNAVA MICA CATCHMENT AREA. CASE STUDY BALAUSERI SECTION, TÂRNAVA MICA RIVER, ROMANIA	1119
<i>Cretan Ioana-Alina, Bratanovici Cristian, Constantin Albert-Titus</i>	
COMPOSTING SOLID MUNICIPAL WASTE, A DETERMINANT PROCESS FOR AN INTEGRATED WASTE MANAGEMENT	1128
<i>Cretan Ioana-Alina</i>	
FE-TI-V DEPOSITS OF EASTERN SIBERIA: THEIR SIMILARITIES AND DIFFERENCES	1139
<i>Bronislav Gongalsky, Nadezhda Krivolutskaya, Anton Yakushev, Vladimir Taskaev</i>	
NATURAL GAS LEAKAGE OCCURRENCE ON A SHALLOW GROUNDWATER RESERVOIR	1148
<i>Roberto Heemann, Adolpho Herbert Augustin, Julio Cesar Gall Pires, Daniela Govoni Sotelo, Cassio Stein Moura</i>	
ROCK SLOPE STABILITY ANALYSIS WITH A KINEMATICAL METHOD FOR THE NAM PHOUN DAM SITE PROJECT, LAOS	1155
<i>Djohn Josia Weaver Mboussa, Shulin Sun, Yan Zhang, Hartman Issombo Elega</i>	
SANDSTONE GRINDING IN ELECTROMAGNETIC MILL – CASE STUDY	1161
<i>Anna Lis</i>	
TRANSPORTATION OF WASTE IN THE LIFE CYCLE ANALYSIS	1165
<i>Maciej Gliniak, Anna Lis</i>	
ANALYSIS OF A SINGLE-FAMILY BUILDING LIFE CYCLE – CASE STUDY	1170
<i>Anna Lis, Anna Warzeszak, Maciej Gliniak</i>	
LITHOFACIES AND BIOFACIES CHARACTERISTICS OF LOWER CARBONIFEROUS CARBONATES IN CENTRAL TAURIDES, TURKEY	1175
<i>Ayse Atakul-Ozdemir, Demir Altiner, Sevinc Ozkan-Altiner</i>	
ANALYSIS OF MINING INFLUENCES ON A SMALL FRAME RAILWAY VIADUCT	1185
<i>Piotr Betkowski</i>	
CORRELATION BETWEEN ELECTRICAL RESISTIVITY AND SUCTION FOR UNSATURATED COASTAL SALINE SOIL	1195
<i>Li Fang, Sun Shulin, Zhang Deheng</i>	

TRANSLUCENT CONCRETE	1205
<i>Georgia Alexandra Covaleov</i>	
PETROLOGY OF GRANITES IN THE GERAMDACHANSKY MASSIF (VERKHOYANSK-KOLYMA OROGENIC REGION)	1210
<i>V. A. Trunilina, S. P. Roev</i>	
PALEOGEOGRAPHIC AND AGE FINDINGS ON PLANKTONIC FORAMINIFERAL ASSEMBLAGES OF YUKSEKOVA COMPLEX IN THE NORTHEAST OF ELAZIG (EASTERN TURKEY)	1221
<i>Melek Ural, Meral Kaya Sari</i>	
METHODS OF SPRINGS FAILURES DIAGNOSTICS IN ORE PROCESSING VIBRATING SCREENS	1230
<i>Pavlo Krot, Radoslaw Zimroz</i>	
HYDRAULIC COMPUTER ANALYSIS OF A RIVER SECTOR UNDER ALTERED FLOWING REGIME DUE TO AN EXISTING BRIDGE AND SUGGESTED SPECIFIC CORRECTION WORKS	1239
<i>Ioana - Alina Popescu-Busan, Gheorghe I. Lazar, Albert Titus Constantin, Serban-Vlad Nicoara</i>	
NUMERICAL SIMULATION OF SEDIMENTS TRANSPORT AO A RIVER SECTOR AS DISTORTED BY A CROSSING STRUCTURE	1248
<i>Ioana - Alina Popescu-Busan, Gheorghe I. Lazar, Albert Titus Constantin, Serban-Vlad Nicoara</i>	
NUMERICAL STUDY OF THE WATER DISCHARGE ON A FISH STEPPED PASSAGE AT A LOW HEAD DAM	1260
<i>Cristian Bratanovici, Ioana - Alina Popescu-Busan, Gheorghe Lazar, Albert Titus Constantin, Serban-Vlad Nicoara</i>	
DAMAGE TO ROAD PAVEMENTS IN THE AREA OF LINEAR DISCONTINUOUS DEFORMATIONS ON THE SURFACE CAUSED BY DEEP MINING	1271
<i>Marcin Grygierek, Magdalena Zieba</i>	
IMPACT OF MINING EXTRACTION ON ABOVE-GROUND PIPELINES	1280
<i>Piotr Kalisz</i>	
PANEL ANALYSIS TO INVESTIGATE THE RELATIONSHIP BETWEEN ECONOMIC GROWTH, IMPORT, CONSUMPTION OF MATERIALS AND ENERGY	1289
<i>Anna Bluszcz, Anna Manowska</i>	
THE DATABASE FOR THE PROCESSING OF ENVIRONMENTAL DATA	1297
<i>Monika Chuchro, Wojciech Sarlej</i>	
INVESTIGATION OF CRUSTAL DEFORMATION BY THE MEANS OF DIRECTLY DEFINED SPATIAL CHORDS – POSSIBILITY OR PREDETERMINANCY	1304
<i>Slaveyko Gospodinov, Elena Peneva, Tatyana Lambeva</i>	
PARAMETRIC ANALYSIS OF URBAN FLOOD RISK BASED ON 'SHALLOW WATER' MODEL; A REAL CASE AT SMALL SCALE	1314
<i>Antonio Pasculli, Jacopo Cinosi, Alain D'Ettoire, Nicola Sciarra</i>	
COAL MINES RISK MODELLING USING ENERGY SPREAD	1327
<i>Zbigniew Krysa, Michal Dudek</i>	
THE COMPARISON OF THE WEB GIS APPLICATIONS RELEVANT FOR 4D MODELS SHARING	1337
<i>Beata Hejmanowska, Ewa Glowienka, Krystyna Michalowska, Slawomir Mikrut, Piotr Kramarczyk, Piotr Opalinski, Mariusz Twardowski, Gabriele Guidi, Sara Gonizzi Barsanti, Laura Micoli, Umair Shafqat Malik, Diego Gonzalez-Aguilera, Luis Javier Sanchez-Aparicio</i>	
PETROLOGIC AND CHRONOLOGICAL CHARACTERISTICS AND FORMATION MECHANISM OF PEPERITE IN THE SANJIANG OROGENIC BELT IN WESTERN YUNNAN, CHINA	1347
<i>Xianfeng Cheng, Qionghua Zuo, Mingxing Peng, Deli Liu, Xingtao Li, Wei Ma, Zhengqing Na</i>	
TEMPORAL AND SPATIAL PATTERN VARIATION ANALYSIS OF GRASSLAND RESOURCES IN HUIZE COUNTY, YUNNAN, CHINA	1355
<i>Xiaoli Sun, Dongsheng Li, Xianfeng Cheng, Juan Ma, Wanrong He</i>	
REMOVE THE PHARMACEUTICALS FROM WATER USING SELECTED ADSORBENTS	1365
<i>Daniela Šiblová, Renata Biela</i>	
A REVIEW OF HUMAN HAIR HEAVY METAL CONCENTRATION CHARACTERISTICS FROM MINES IN CHINA	1370
<i>Shuran Yang, Qianrui Huang, Xianfeng Cheng, Wufu Qi, Xiangqun Zhang, Yungang Xiang, Jiansheng Zhang</i>	
THE REVIEW OF GEOHAZARDS IN XIAOLONGTAN LIGNITE DEPOSITE	1383
<i>Shuran Yang, Qianrui Huang, Xianfeng Cheng, Wufu Qi, Xiangqun Zhang, Yungang Xiang, Jiansheng Zhang</i>	

DIMENSIONAL EVOLUTION OF BRICK PRODUCTS FROM THE FULL BRICK TO THE PRESENT IN THE CZECH REPUBLIC	1391
<i>Jan Fiala, Jan Fiala junior, Milan Mikolas</i>	
SPECIAL BRICK PRODUCTS AND THEIR APPLICATION	1395
<i>Jan Fiala, Jan Fiala junior, Milan Mikolas</i>	
ANALYZES OF BROWN COAL IN CONNECTION WITH HIGHER SULFUR CONTENTS IN SOKOLOVSKÁ UHELNÁ	1398
<i>Milos Duraj, Marek Augustin, Dominik Niemiec, Shuran Yang, Jan Kubac, Barbara Matuszkova, Erik Sombathy, Orlando Arencibia Montero, Isik Yilmaz, Marian Marschalko</i>	
MICROFILTRATION IN WATER TREATMENT FOR REMOVAL OF SUSPENDED SOLIDS AND NATURAL ORGANIC MATTER	1405
<i>Danka Barlokova, Jan Ilavsky, Michal Kunstek, Ondrej Kapusta</i>	
INVESTIGATION OF PROPERTIES OF MORTARS CONTAINING WASTE STONE POWDER INSTEAD OF SAND UNDER FREEZING-THAWING EFFECT	1413
<i>Ibrahim Feda Aral, Mehmet Timur Cihan</i>	
APPLICATIONS OF LINEAR SYSTEMS IN CONTEMPORARY URBAN DESIGN	1426
<i>Krzysztof Kwiatkowski</i>	
NECESSITY OF 3D CADASTER AND POSSIBLE CASES	1438
<i>Christina Mickrenska-Cherneva, Kostadin Nikolov</i>	
GEOHERMAL WATERS IN PAMUKKALE AS AN HYDROGEOLOGICAL MODEL WITHIN THE MENDERES MASSIF, TURKEY	1449
<i>Nevzat Ozgur, Duygu Sengul Kutlu</i>	
GEOHERMAL WATERS OF URGANLI (MANISA) AS A HYDROGEOLOGICAL MODEL, WESTERN ANATOLIA, TURKEY	1456
<i>Nevzat Ozgur, Seher Buyuksahin</i>	
LEACHATE TREATMENT PLANTS USED INSIDE COMPLIANT LANDFILLS, SOLUTIONS TO COMPLY WITH TECHNICAL ENVIRONMENTAL PROTECTION STANDARDS	1462
<i>Cretan Ioana-Alina</i>	
Author Index	