

**18th INTERNATIONAL MULTIDISCIPLINARY
SCIENTIFIC GEOCONFERENCE
S G E M 2 0 1 8**

CONFERENCE PROCEEDINGS

VOLUME 18



**SCIENCE AND TECHNOLOGIES IN GEOLOGY,
EXPLORATION AND MINING
ISSUE 1.1**

GEOLOGY

APPLIED AND ENVIRONMENTAL GEOPHYSICS

**2 July - 8 July, 2018
Albena, Bulgaria**

DISCLAIMER

This book contains abstracts and complete papers approved by the Conference Review Committee. Authors are responsible for the content and accuracy.

Opinions expressed may not necessarily reflect the position of the International Scientific Council of SGEM.

Information in the SGEM 2018 Conference Proceedings is subject to change without notice. No part of this book may be reproduced or transmitted in any form or by any means, electronic or mechanical, for any purpose, without the express written permission of the International Scientific Council of SGEM.

Copyright © SGEM2018

All Rights Reserved by the International Multidisciplinary Scientific GeoConferences SGEM

Published by STEF92 Technology Ltd., 51 “Alexander Malinov” Blvd., 1712 Sofia, Bulgaria

Total print: 5000

ISBN 978-619-7408-35-5

ISSN 1314-2704

DOI: 10.5593/sgem2018/1.1

**INTERNATIONAL MULTIDISCIPLINARY SCIENTIFIC GEOCONFERENCE SGEM
Secretariat Bureau**

E-mail: sgem@sgem.org | URL: www.sgem.org

ORGANIZERS AND SCIENTIFIC PARTNERS

- THE CZECH ACADEMY OF SCIENCES
- LATVIAN ACADEMY OF SCIENCES
- POLISH ACADEMY OF SCIENCES
- RUSSIAN ACADEMY OF SCIENCES
- SERBIAN ACADEMY OF SCIENCES AND ARTS
- SLOVAK ACADEMY OF SCIENCES
- NATIONAL ACADEMY OF SCIENCES OF UKRAINE
- INSTITUTE OF WATER PROBLEM AND HYDROPOWER OF NAS KR
- NATIONAL ACADEMY OF SCIENCES OF ARMENIA
- SCIENCE COUNCIL OF JAPAN
- EUROPEAN ACADEMY OF SCIENCES, ARTS AND LETTERS
- ACADEMY OF SCIENCES OF MOLDOVA
- MONTENEGRIN ACADEMY OF SCIENCES AND ARTS
- CROATIAN ACADEMY OF SCIENCES AND ARTS, CROATIA
- GEORGIAN NATIONAL ACADEMY OF SCIENCES
- ACADEMY OF FINE ARTS AND DESIGN IN BRATISLAVA
- TURKISH ACADEMY OF SCIENCES
- NIZHNY NOVGOROD STATE UNIVERSITY OF ARCHITECTURE AND CIVIL ENGINEERING, RUSSIAN FEDERATION
- BULGARIAN ACADEMY OF SCIENCES
- BULGARIAN INDUSTRIAL ASSOCIATION
- BULGARIAN MINISTRY OF ENVIRONMENT AND WATER

INTERNATIONAL SCIENTIFIC COMMITTEE

Science and Technologies in Geology, Exploration and Mining

- PROF. JEAN-PIERRE BURG, SWITZERLAND
- ACAD. DMITRY Y. PUSHCHAROVSKY, RUSSIA
- PROF. YEVGENY KONTAR, USA
- PROF. HELMUT WEISSERT, SWITZERLAND
- PROF. KOEN BINNEMANS, BELGIUM
- PROF. PROSUN BHATTACHARYA FIL. DR., SWEDEN
- PROF. DR UNSAL YALCIN, GERMANY

- PROF. VLADICA CVETKOVIC, SERBIA
- PROF. NIKOLAY I. LEONYUK, RUSSIA
- PROF. DR RADOSLAV NAKOV, BULGARIA
- PROF. DR ZDENEK KALAB, CZECH REPUBLIC
- PROF. DSC JORDAN MARINSKI, BULGARIA
- PROF. VICTOR ARAD, ROMANIA
- PROF. YURY STEPIN, RUSSIA
- PROF. DR SNEZANA KOMATINA PETROVIC, SERBIA
- PROF. KUVVET ATAKAN, NORWAY
- PROF. K.N. MILOVIDOV, RUSSIA
- PROF. RODNEY STEVENS, SWEDEN
- ASSOC. PROF. GERARDO BRANCUCCI, ITALY
- ING. SLAVOMIR HREDZAK, PHD, SLOVAKIA
- DR. DIEGO PERUGINI

CONFERENCE PROCEEDINGS CONTENTS**GEOLOGY**

- 1. A PRELIMINARY EVALUATION OF BULDAN COALS (DENIZLI/WESTERN TURKEY) USING PYROLYSIS AND ORGANIC PETROGRAPHIC INVESTIGATIONS**, Assoc. Prof. Dr. Demet Banu KORALAY, Zuhai Gedik VURAL, Pamukkale University, Turkey3
- 2. ANCIENT MIDDLE-CARBONIFEROUS FLORA OF THE ORULGAN RANGE (NORTHERN VERKHOYANSK) AND JUSTIFICATION OF AGE BYLYKAT FORMATION**, Mr. A.N. Kilyasov, Diamond and Precious Metal Geology Institute, Siberian Branch of the Russian Academy of Sciences (DPMGI SB RAS), Russia11
- 3. BARIUM PHLOGOPITE FROM KIMBERLITE PIPES OF CENTRAL YAKUTIA**, Nikolay Oparin, Ph.D. Oleg Oleinikov, Institute of Geology of Diamond and Noble Metals SB RAS, Russia19
- 4. BEHAVIOR OF THE MAFIC MINERALS WITHIN THE DIFFERENT SOURCE OF MAGMA FOR IMPLICATION NATURE, THERMOBAROMETRY, DEPTH AND TECTONIC SETTINGS**, Dr. Kiyem Deniz, Prof. Dr. Yusuf Kagan Kadioglu, Prof. Dr. Tamer Koralay, Ankara University, Turkey.....27
- 5. COLD SPRING WATER CHEMICAL IMPRINT IN VRANCEA REGION (SUBCARPATHIAN NAPPE, ROMANIA) FOR ASSESSING THE FLUIDS ORIGIN**, Dr. Maria-Lidia Nutu-Dragomir, Dr. Horia Mitrofan, Dr. Marin Constantin, Dr. Alin Tudorache, Institute of Geodynamics of Romanian Academy, Romania.....35
- 6. COMPARATIVE ANALYSIS OF TECTONIC STRUCTURES OF THE NORTH-EASTERN AND EASTERN FRAMING OF THE SIBERIAN PLATFORM (NORTH-EAST ASIA)**, Dmitry A. Vasiliev, Dr. Andrey V. Prokopiev, Dr. Felix F. Tretyakov, Diamond and Precious Metal Geology Institute Siberian Branch of the Russian Academy of Sciences, Russia43
- 7. COMPLEX STUDY OF DIAMONDIFEROUS SEDIMENTARY-VOLCANOGENIC ROCKS OF THE CARNIAN AGE OF THE BULKUR ANTICLINE (NORTH-EAST SIBERIAN PLATFORM)**, Biller A.Y., Zaitsev A.I., Zayakina N.V., Timofeev V.F., Oleynikov O.B., Diamond and Precious Metal Geology Institute Siberian Branch of the Russian Academy of Sciences, Russia51
- 8. CREATION AND DEVELOPMENT OF QEMSCAN® ANALYSIS PROCEDURE BASED ON POLISH COPPER ORES INVESTIGATION**, Rafał Kubik, Wrocław Research Centre EIT, Poland59

9. DECIPHERING THE RESERVOIR ROCKS LITHOLOGY BY MINERALOGICAL INVESTIGATIONS TECHNIQUES FOR AN OILFIELD IN EASTERN GETIC DEPRESSION (ROMANIA), Assoc. Prof. Dr. Eng. Gheorghe Adrian Branoiu, Petroleum-Gas University of Ploiesti, Romania.....	67
10. DOBELE IMPACT STRUCTURE IN LATVIA: REVIEW OF ARCHIVED REPORTS FOR FUTURE, Juris Burlakovs, Maris Krievans, Valdis Seglins, Karlis Berzins, Oskars Stiebrins, University of Latvia, Latvia	75
11. ESTIMATION OF COALBED PARAMETERS USING MECHANICAL LOGGING, Ignatiev N.N., Lapteva M.I., JSC SUEK, Russia	83
12. EVALUATION OF LIMONITE CONCRETIONS BY CHEMICAL AND MINERALOGICAL COMPOSITION, THEIR FORMATION MODEL., Aigars Kokins, Juris Kostjukovs, Raimonds Meija, University of Latvia, Latvia.....	91
13. FEATURES OF THE COMPOSITION AND PROPERTIES OF HEAVY OIL ASPHALTENES OF VARIOUS PRODUCTIVE COMPLEXES OF THE DEPOSITS FROM VOLGA-URAL OIL AND GAS BASIN, Guzalia Abilova, Dr. Igor Kosachev, Dr. Dmitry Milordov, Dr. Svetlana Yakubova, Elvira Tazeeva, A.E. Arbuzov Institute of Organic and Physical Chemistry KSC RAS, Russia.....	99
14. GAS-LIQUID CHROMATOGRAPHY FOR COMPARING CRUDE OIL CORE AND BITUMEN SAMPLE COMPOSITIONS, Irina Guskova, Dilara Gumerova, Assoc. Prof. Roza Budkevich, Vadim Sayakhov, Ildar Ishkulov, Almet'yevsk State Oil University, Russia	107
15. GEOCHEMICAL CLUES ABOUT A DEEP RESERVOIR THAT SUPPLIES SALINE FLUIDS TO GROUNDWATER OUTFLOWS IN THE SOUTH-EAST CARPATHIANS (ROMANIA), Dr. Horia Mitrofan, Dr. Maria-Lidia Nutu-Dragomir, Dr. Constantin Marin, Dr. Alin Tudorache, Lect. Dr. Florina Chitea, Institute of Geodynamics of Romanian Academy, Romania.....	113
16. GEOCHEMISTRY AND PETROLOGY OF LATE JURASSIC GRANITOIDS OF BORSCHOVOCHNY MASSIF (EASTERN TRANSBAIKALIA), Postgraduate student Kremer I.O., Assoc. Prof. Tishin P.A., Tomsk State University, Russia	121
17. IDENTIFICATION OF MINERALOGICAL PHASES WITH X RAY DIFFRACTION AND CHEMICAL ANALYSIS OF THE MAIN COMPONENTS, TRACE AND RARE EARTH ELEMENTS OF CERNUSHA MAP K34-42BD (1:25000), Fidaim Sahiti, Epir Qeriqi, Berat Sinani, Ismet Shala, Ibrahim Musa, Geological Survey of Kosovo, Kosovo	129
18. GEOCHEMISTRY OF PHANEROZOIC BASITES FROM THE EASTERN PART OF THE SIBERIAN PLATFORM, M.D. Tomshin, A.G. Kopylova, A.E. Vasileva, S.S. Gogleva, Diamond and Precious Metal Geology Institute Siberian Branch of the Russian Academy of Sciences, Russia	135

19. GEODIVERSITY AND RAW MATERIALS VALUES IN THE SOUTHERN PART OF THE HOLY CROSS MOUNTAINS , Msc Eng. Angelika Musial, PhD Eng. Edyta Sermet, Msc Eng. Justyna Auguscik, AGH - University of Science and Technology, Poland	143
20. GEOLOGICAL AND ECOLOGICAL CHARACTERIZATION OF THE TECHIRGHIOL LAKE (SE ROMANIA): STATE OF THE ART , Geologist Stanescu Ion, Dr. Brustur Titus, National Institute of Marine Geology and Geoecology GeoEcoMar, Romania	151
21. GEOLOGICAL AND MINERALOGICAL FEATURES OF THE SAYAK ORE DISTRICT (KAZAKHSTAN) , Prof. Adilkhan Baibatsha Ass. prof. Kulyash Dussembayeva, PhD-student Gulimshat Shakirova, Kazakh National Technical University Named After K. I. Satpayev, Kazakhstan.....	159
22. GEOLOGICAL AND MINING RISKS ASSESSMENT ON EXAMPLE OF UKRAINIAN BIF DEPOSITS , Mariia Kurylo, Oleksandr Plotnikov, National University of Kyiv, Ukraine	167
23. GROUND ICE AND ITS' INFLUENCE ON COASTAL EROSION OF KARA SEA REGION, RUSSIAN ARCTIC , Dr. Nataliya Belova, Lomonosov Moscow State University, Russia.....	173
24. ICE SCOURS ON THE EXPOSED BOTTOM OF THE ARAL SEA , Stepan V. Maznev, Stanislav A. Ogorodov, Lomonosov Moscow State University, Russia	181
25. IMPACT OF TECTONICS ON RIVERS TERRACES GEOMORPHOLOGY, IN ALBANIA , Assoc. Prof. Dr. Rexhep Koci, Dr. Edmond Dushi, Dr. Enkela Begu, MSc. Rrezart Bozo, Polytechnic University of Tirana, Albania	189
26. LANDSCAPE STRUCTURE, CLIMATE-INDUCED DYNAMICS AND NATURAL HAZARDS OF THE BASIN OF AKTRU RIVER (SOUTH-EASTERN ALTAY) , Assoc. researcher PhD. Tatiana Sh. Fuzella, Senior researcher PhD. Alexey V. Puchkin, Senior researcher PhD. Alexey V. Khon, Institute of Monitoring of Climatic and Ecological Systems SB RAS, Russia	197
27. LITHOSPHERIC ARCHITECTURE OF EUROPEAN CRATON , Dr. Galina Ivanchenko, Dr. Ella Gorbunova, Dr. Grigori Kosarev, Dr. Oksana Riznichenko, Andrei Goev, Institute of Geosphere Dynamics of RAS, Russia	205
28. LOGICAL-INFORMATION MODELS OF FORMATION TYPES OF GOLD DEPOSITS IN THE NORTH-EAST OF RUSSIA , Dr. Sci. Irina Chizhova, Dr. Sci. Konstantin Lobanov, Dr. Sci. Alexander Volkov, Institute of Geology of Ore Deposits, Petrography, Mineralogy and Geochemistry, RAS, Russia	213
29. METAMORPHIC AND METASOMATIC ORE CONTROL OF KHIZOVAARA STRUCTURE DEPOSITS , Alexander Nikiforov, Institute of Geology Karelian Research Centre Russian Academy of Sciences, Russia	221

30. METHOD FOR ASSESSMENT OF THE MONOLITHIC PATTERN OF A MASSIF BY ANALYSIS OF MACRO- AND MICROFRACTURING OF IGNEOUS ROCKS , Researcher Andrey Ivanov, PhD Vitaly Shekov, PhD Oksana Myasnikova, Institute of Geology Karelian Research Centre Russian Academy of Sciences, Russia	229
31. METHODS OF SMOOTHING AND FILTERING GEOLOGICAL AND GEOPHYSICAL DATA , Dr. LAURENTIU ASIMOPOLOS, Dr. NATALIA-SILVIA ASIMOPOLOS, Geological Institute of Romania, Romania.....	237
32. MINERAL-GEOCHEMICAL FEATURES AND TYPE OF ORGANIC MATTER OF THE LOWER-RIPHEAN DEPOSITS OF THE EASTERN-ASKINSKAYA AREA OF THE REPUBLIC OF BASHKORTOSTAN , Assoc. Prof. Dr. Lyalya M. Sitdikova, Assoc. Prof. Dr. Nailia. M. Khasanova, Student Evgeniy S. Korepanov, Prof. DSc. Evgeniy V. Lozin, Kazan (Volga Region) Federal University, Russia	245
33. MINERALOGICAL AND GEOCHEMICAL CRITERIA FOR THE STRATIGRAPHIC DISMEMBERMENT OF METAMORPHIC COMPLEXES OF THE CRYSTALLINE BASEMENT OF THE TATAR ARCH (RUSSIAN FEDERATION) , Liliya Khayrtdinova, Assoc. Prof. DSc. Rinat Khasanov, Assoc. Prof. Dr. Oleg Badrutdinov, Kazan (Volga Region) Federal University, Russia	253
34. MINERALOGICAL-GEOCHEMICAL CHARACTERISTICS AND THE FORMATION CONDITIONS OF DYVOK ORE OCCURRENCE (SOUTH YAKUTIA, RUSSIAN FEDERATION) , Researcher engineer Veronika Kardashevskaya, PhD. Galina Anisimova, Diamond and Precious Metal Geology Institute Siberian Branch of the Russian Academy of Sciences, Russia.....	259
35. MINERALOGICAL AND GEOCHEMICAL FEATURES OF SENONIAN SEDIMENTS OF MEDVEZHYE GAS FIELD (WESTERN SIBERIA) , Ass. Igor Afonin, Assoc. Prof. Platon Tishin, Tomsk State University, Russia.....	265
36. MINERALOGY OF METABASITES OF AN OPHIOLITE ASSOCIATION FROM THE KUZNETSK ALATAU (SW SIBERIA) , Nadezhda Dugarova, National Research Tomsk State University, Russia.....	273
37. MODEL OF THE ARAL SEA SEDIMENTARY CYCLES , Dr. Inna Chernova, Assist. Prof. Alexander Starovoytov, Engineer Gulnur Vafina, Engineer Olga Chernova, Kazan (Volga Region) Federal University, Russia.....	281
38. MODERN DATA ON THE EARTH'S HOT HETEROGENEOUS ACCRETION AS A BASIS FOR SCIENTIFIC REVOLUTION IN GEOLOGY , Dr. Vladimir Shkodzinskiy, Institute of Diamond and Precious Metals Siberian Branch of the RAS IGABM, Russia	289

39. MONUMENT OF NATURE THE BERELEKH MAMMOTHS “CEMETERY” (YAKUTIA, EASTERN SIBERIA, RUSSIA), Dr. Gennady G. Boeskorov, Innocenty N. Belolyubsky, Assoc. Prof. Dr. Marina V. Shchelchkova, Institute of Diamond and Precious Metals Siberian Branch of the RAS IGABM, Russia	299
40. MUD VOLCANOES AS IMPORTANT PATHWAY FOR TRACE ELEMENTS INPUT TO THE ENVIRONMENT: CASE STUDY FROM THE KERCH-TAMAN PROVINCE, NORTHERN BLACK SEA, Dr. Ellina V. Sokol, Dr. Svetlana N. Kokh, Dr. Olga A. Kozmenko, Dr. Vasili Yu. Lavrushin, Dr. Olga E. Kikvadze, Sobolev V.S. Institute of Geology and Mineralogy Siberian Branch of the Russian Academy of Sciences, Russia	307
41. MULTIPLE GENERATIONS OF PYROCHLORES FROM THE OKA CARBONATITE COMPLEX, CANADA, Krzysztof Foltyn, Slawomir Mederski, AGH University of Science and Technology, Poland	323
42. NATURE OF QUATERNARY BASALTS FROM AMANUS MOUNTAIN: SOUTHERN PART OF TURKEY, Prof. Dr. Yusuf Kagan Kadioglu, Kiyemet Deniz, Prof. Dr. Tamer Koralay, Ankara University, Turkey	331
43. NEOGENE CYCLO-STRATIGRAPHIC CHART OF THE CENTRAL PARATETHYS, Dr. Mircea Țicleanu, Radu Nicolescu, Flori Culescu, Alexandru Țicleanu, Geological Institute of Romania, Romania	339
44. NEOTECTONIC FEATURES OF THE ALBANIDES OROGENIC STRUCTURE, MSc. Rrezart Bozo, Assoc. Prof. Rexhep Koci, Dr. Edmond Dushi, Dr. Enkela Begu, IGEWE, Albania	347
45. NEOTECTONICS OF THE Khibiny Alkaline Massif, Zhiron Dmitry, PhD Zhirona Anzhela, Geological Institute of Kola Science Centre RAS, Russia	355
46. OLIGOCENE- LOWER MIOCENE GEOLOGICAL EVENTS IN THE EASTERN CARPATHIANS AND THEIR IMPACT ON HYDROCARBON ACCUMULATION, Dr. Mihaela Carmen Melinte-Dobrinescu, Dr. Titus Brustur, Dr. Andrei Briceag, Dr. Sabin Rotaru, National Institute of Marine Geology and Geoecology GeoEcoMar, Romania	363
47. ORBICULAR GABBRO AS AN INDICATOR OF MAGMA MIXING FROM STRANDJA MASSIF, NORTHWEST TURKEY: MINERAL CHEMISTRY AND CONFOCAL RAMAN SPECTROMETRY METHODS, Ezgi Ulusoy, Prof. Dr. Yusuf Kagan Kadioglu, General Directorate of Mineral Research and Exploration, Turkey	371
48. ORGANIC MATURATION AND MACERAL ASSOCIATIONS OF OLIGOCENE SEDIMENTARY ROCKS FROM EASTERN DENİZLİ, TURKEY, Assoc. Prof. Dr. Demet Banu Koralay, Pamukkale University, Turkey	379

- 49. PALEOSOLS FROM THE URZHUMIAN (MIDDLE PERMIAN) REFERENCE SECTION, KAZAN VOLGA REGION, RUSSIA**, Assoc. Prof. Dr. Fedor A. Mouraviev, Assoc. Prof. Dr. Vladimir V. Silantiev, Bulat I. Gareev, Georgii A. Batalin, Irina B. Vybornova, Kazan (Volga Region) Federal University, Russia387
- 50. PETROGRAPHIC RHYTHMICALITY OF HYPABYSSAL COMPLEXES OF THE BASEMENT OF THE TATAR ARCH – POTENTIAL RESERVOIR ZONES**, Assoc. Prof. Lyalya M. Sitdikova Assoc. Prof. Dr. Victor G. Izotov, Assist. Prof. Dr. Elena U. Sidorova, Kazan (Volga Region) Federal University, Russia395
- 51. PHYSICAL AND CHEMICAL FEATURES OF ZIRCONS AND APATITES FROM MEDVEDEV, YUKHTA, DZHELTULA MESOZOIC ALKALINE MASSIFS (NORTH-ASIAN CRATON, SOUTHERN YAKUTIA)**, Aleksey Ivanov, Anatolii Zhuravlev, Andrei Molotkov, Evgenii Loskutov, Boris Gerasimov, Institute of Diamond and Precious Metals Siberian Branch of the RAS IGABM, Russia403
- 52. POST-SEDIMENTAL CHANGES OF BITUMINOUS SANDSTONES: COMPOSITION AND GENESIS OF CEMENTING MATERIAL**, Assist. Prof. Almaz Mullakaev, Assist. Prof. Rustam Sagirov, Assoc. Prof. DSc. Rinat Khasanov, Kazan (Volga Region) Federal University, Russia411
- 53. PRINCIPLES OF STRUCTURAL-TECTONIC ANALYSIS IN KARSTOLOGY**, Prof. DSc. Valerii Kataev, Perm State National Research University, Russia417
- 54. RECONSTRUCTION PHYSICOCHEMICAL CONDITIONS FRASNIAN-FAMENNIAN CARBONATE DEPOSITS ON ELECTRON PARAMAGNETIC RESONANCE DATA**, Nailia M. Khasanova, Akhmet A. Galeev, Fedor A. Mouraviev, Ravil A.Khasanov, Nazim M. Nizamutdinov, Kazan (Volga Region) Federal University, Russia.....425
- 55. REGULARITIES OF FORMATION OF THE PALEOPROTEROZOIC GROUP OF DEPOSITS OF THE ALDAN GRANULITIC-GNEISSIC AREA ACCORDING TO COMPLEX DATA**, Alexander Kravchenko, Evgenii Loskutov, Vasily Beryozkin, Nikolay Popov, Institute of Diamond and Precious Metals Siberian Branch of the RAS IGABM, Russia.....433
- 56. RESEARCH OF THE MINERALOGICAL SITUATION OF THE MAIN BENTONITE LOCALITIES IN THE MOST BASIN AREA**, Michal Rehor, Pavel Schmidt, Lukas Zizka, Brown Coal Research Institute, Czech Republic441
- 57. RHYTHM OF CARBONATE DEPOSITS OF THE LIVEN’S HORIZON ON ELECTRON PARAMAGNETIC RESONANCE DATA**, Nailia M. Khasanova, Akhmet A. Galeev, Fedor A. Mouraviev, Ravil A.Khasanov, Nazim M. Nizamutdinov, Kazan (Volga Region) Federal University, Russia449

- 58. SEDIMENT DISPERSION IN A LARGE ICE-CONTACT LAKE RECONSTRUCTED FROM A VARVE RECORD: PARNU BAY REGION, ESTONIA**, Andis Kalvans, Tiit Hang, Marko Kohv, University of Latvia, Latvia.....457
- 59. SEDIMENTOLOGY AND PALEONTOLOGY OF THE DANUBE DELTA'S HALMYRIS ARCHAEOLOGICAL SITE, ROMANIA: PALEOENVIRONMENTAL IMPLICATIONS**, Dr. Andrei Briceag, Dr. Radu George Dimitriu, Dr. Dan Secieru, Dr. Gicu Opreanu, Eng. Bogdan Barbu, National Institute of Marine Geology and Geoecology GeoEcoMar, Romania465
- 60. SIX CENTURIES OF THE POLISH SULPHUR MINING. PAST, TODAY AND FUTURE.**, PhD Edyta Sermet, PhD Jerzy Gorecki, Msc Eng. Angelika Musial, AGH University of Science and Technology, Poland.....473
- 61. SPECTROSCOPIC CHARACTERIZATION OF MANGANESE OCCURRENCES ALONG CRACK SURFACES OF THE RHYOLITIC IGNIMBRITE (INNER WEST ANATOLIA-TURKEY)**, Prof.Tamer Koralay, Prof. Dr. Yusuf Kagan Kadioglu, Dr.Kiyemet Deniz, Pamukkale University, Turkey481
- 62. STAGES OF SAND RESERVOIR FORMATION IN NIZHNE-KARMALSKOYE SUPER-VISCOUS OIL DEPOSIT**, Eduard KOROLEV, Vladislav SUDAKOV, Denis NIKOLAEV, Rezida GABDELVALIEVA, Sergey USMANOV, Kazan (Volga Region) Federal University, Russia489
- 63. STATISTICAL ANALYSIS OF DISTRIBUTION OF Ag, Au, Pb AND Zn IN TREPCA MINE**, MSc. Berat Sinani, Prof. Dr. Naser Peci, Prof. Dr. Zenun Elezaj, MSc. Bahri Sinani, Kosovo Geological Survey of Kosovo, Kosovo497
- 64. STUDY ON THE PHENOMENON OF CRACKS IN SALT ROCKS FROM SLANIC PRAHOVA MINE**, PhD.Stud.Eng. POPA Cristian Valentin, Professor.Dr.Eng. ARAD Victor., University of Petrosani, Romania505
- 65. STUDYING THE PROCESSES OF EXTRACTION OF EXTRA-VISCOUS OIL BY HYDROCARBON SOLVENT**, Kosachev I.P., Milordov D. V., Mironov N.A. Tazeev D.I., Amerkhanov M.I., A.E. Arbuzov Institute of Organic and Physical Chemistry KSC RAS, Russia511
- 66. TAILS OF ENRICHMENT FACTORIES AS THE TECHNOGENIC MINERAL RESOURCES**, Prof. Adilkhan Baibatsha, Assist. Prof. Kulyash Dussembayeva, Assist. Prof. Alma Bekbotayeva, Master Togzhan Abdullayeva, Kazakh National Technical University Named After K. I. Satpayev, Kazakhstan519
- 67. THE ADAPTATION OF SELECTED POST-MINING AREAS IN KRAKOW**, PhD Edyta Sermet, Msc Eng Angelika Musial, AGH University of Science and Technology, Poland.....527

- 68. THE DEEP STRUCTURE AND ORE-FORMING SYSTEMS OF THE PECHENGA ORE DISTRICT**, Dr. Sci. Konstantin Lobanov, Dr. Sci. Nikolay Sharov, Mikhail Chicherov, Dr. Sci. Irina Chizhova, Dr. Sci. Tatiana Gornostaeva, Institute of Geology of Ore Deposits, Petrography, Mineralogy and Geochemistry, RAS, Russia.....535
- 69. THE DIVERSITY OF VOLUMETRIC DENSITY IN SELECTED LITHOLOGICAL UNITS IN THE CU-AG DEPOSIT IN THE LUBIN-GLOGOW COPPER DISTRICT**, Msc Eng. Martyna Paszek, MSc Eng. Justyna Auguscik, AGH - University of Science and Technology, Poland.....543
- 70. THE EFFECT OF MICROFRACTURING IN GABBRO-DOLERITES ON THEIR PHYSICAL PROPERTIES**, V. Shekov, A. Ivanov, O. Myasnikova, Karelian Research Centre, Russian Academy of Sciences, Institute of Geology (IG KRC RAS), Petrozavodsk, Russia.....551
- 71. THE IMPACT OF DOLOMITES ALTERATION ON THE VALUE OF MICROHARDNESS IN TECTONICALLY DISTURBED ZONES**, Msc Eng. Angelika Musial, Assoc. Prof. Marek Rembis, AGH - University of Science and Technology, Poland.....559
- 72. THE INFLUENCE OF THE SELECTED INTERPOLATION METHOD ON THE ACCURACY OF Cu AND Pb CONTENTS INTERPOLATION BASED ON THE EXAMPLE OF COPPER-SILVER DEPOSIT (LGCD, POLAND)**, MSc Eng. Justyna Auguscik, Assoc. Prof. Jacek Mucha, The Mineral and Energy Economy Research Institute of the Polish Academy of Sciences, Poland567
- 73. RELATION BETWEEN BASIC AND ACID MAGMATISM IN TIN-BEARING AREAS OF EASTERN YAKUTIA**, Vera A. Trunilina, Sergey P. Roev, Diamond and Precious Metal Geology Institute Siberian Branch of the Russian Academy of Sciences, Russia.....577
- 74. THE STUDY OF THE COMPOSITION OF THE VISEAN COAL IN THE EASTERN PART OF THE EAST-EUROPEAN PLATFORM (RUSSIA FEDERATION) IN CONNECTION WITH THE PROSPECTS OF THEIR EXPLOITATION USING WELL METHODS**, Assoc. Prof. DSc. Rinat Khasanov, Assoc. Prof. Dr. Shavkat Gafurov, Aidar Rakhimzyanov, Bulat Galiullin, Kazan (Volga Region) Federal University, Russia589
- 75. THE USE OF GIS FOR ASSESSING THE DISTURBANCE OF A ROCK TERRANE AT A QUARRYING STAGE**, Researcher Andrey Ivanov, PhD Vitaly Shekov, PhD Oksana Myasnikova, Institute of Geology Karelian Research Centre Russian Academy of Sciences, Russia595

- 76. THE VARIABILITY IN THE CONTENT OF RARE EARTH ELEMENTS (Ce, La, Sc, Y) IN BITUMINOUS COAL (LUBLIN COAL BASIN),** MSc Eng. Justyna Auguscik, PhD Edyta Sermet, MSc Eng. Angelika Musiał, The Mineral and Energy Economy Research Institute of the Polish Academy of Sciences, Poland603
- 77. THE VARIABILITY OF SELECTED QUALITATIVE PARAMETERS OF BITUMINOUS COAL – EAST PART OF THE UPPER SILESIAN COAL BASIN (USCB) CASE STUDY,** MSc Eng. Martyna Paszek, MSc Eng. Justyna Auguścik, MSc Eng. Angelika Musiał, AGH - University of Science and Technology, Poland611
- 78. THERMODYNAMIC MODELLING OF PHYSICOCHEMICAL CONDITIONS OF FORMATION FOR THE RICH GOLD DEPOSITS,** Prof. Dr. Valeriy Skvortsov, Institute of Earth’s Crust, Siberian Branch of the Russian Academy of Sciences, Russia619
- 79. TYPOMORPHIC FEATURES OF NATIVE GOLD OF KRUTAYA PLACER AND ITS CONNECTION WITH PRIMARY SOURCES (KHATYRKHAY ORE-PLACER CLUSTER, SOUTHERN YAKUTIA),** Kazhenkina A.G., Nikiforova Z.S., Diamond and Precious Metal Geology Institute Siberian Branch of the Russian Academy of Sciences, Russia627
- 80. ZARECHENSK BARITE-POLYMETALLIC DEPOSIT AND SOME CONDITIONS OF ITS ORE ACCUMULATION,** Junior researcher Ksenia V. Bestemianova, Assoc. Prof. Dr. O.M. Grinev, National Research Tomsk State University, Russia635
- 81. CHARACTERISTICS, DISTRIBUTION AND MORPHOGENESIS OF GOLD-BEARING SULFIDE MINERALS IN THE GOLD BLACK SHALE DEPOSIT OF BAKYRCHIK,** Medet Junussov, University of Miskolc, Hungary643
- 82. NON-STATIONARY HIGH VISCOUS OIL PRODUCTION FROM THE VERTICALLY FRACTURED CARBONATE RESERVES,** Prof. Dr. Sc. Irina A. Guskova, Assoc. Prof. Dr. Lilia I. Garipova, Assoc. Prof. Dr. Artur T. Gabdrakhmanov, Almeteyevsk State Oil Institute, Russia651
- 83. RELEASE MECHANISM OF SULPHUR BEARING MINERALS IN SOUTH AFRICAN COAL SAMPLES DURING THE INITIAL COMBUSTION STAGE,** Nkhumeleni Tshiongo-Makgwe, University of Johannesburg, South Africa657
- 84. IMPACT OF COAL COMPOSITION ON PYROMETALLURGICAL PROCESSES,** MK Wa Kalenga, N. Tshiongo-Makgwe, University of Johannesburg, Faculty of Engineering and the Built Environment, School of Mining, Metallurgy and Chemical Engineering, Department of Metallurgy, Minerals Processing and Technology Research Centre, South Africa665

APPLIED AND ENVIRONMENTAL GEOPHYSICS

- 85. AN ESTIMATION OF THE EFFECTIVE ATTENUATION FOR P WAVES APPLIED TO THE CENTRAL PART OF THE EAST EUROPEAN CRATON BASED ON THE QUARRY BLASTS DATA**, Dr. Oksana Riznichenko, Margarita Nesterkina, Natalia Konstantinovskay, Sergey Volosov, Ella Gorbunova, Institute of Geosphere Dynamics of RAS, Russia.....675
- 86. ANALYSIS OF SUBSIDENCE AND INDUCED SEISMICITY IN UPPER SILESIAN COAL BASIN, POLAND**, Katarzyna Mirek, AGH - University of Science and Technology, Poland683
- 87. APPLICATION OF ALTERNATIVE CASING MATERIAL FOR PULSE NEUTRON LOGGING APPARATUS TO IMPROVE THE QUALITY OF THE RECORDED SIGNAL**, Ph.D. Marsel Khamiev, Sr. Lecturer Victor Kosarev, Assist. Prof. Ekaterina Yachmeneva, Kazan (Volga Region) Federal University, Russia.....691
- 88. ASPECTS ABOUT THE MASSIVE MASONRY BEHAVIOR OF PATRIMONY BUILDINGS SUBJECTED TO THE ACTION OF DIFFERENT FACTORS BY EXPERIMENTAL INVESTIGATIONS**, Ph.D. ing Anca Mihaela Barbu(Mogasanu), Assoc. Dr. ing. Madalina Xenia Calbureanu, Technical University of Cluj-Napoca, Romania.....697
- 89. ADAPTIVE SELECTION OF THE CHANNELS OF SMALL APERTURE SEISMIC ARRAYS FOR CROSS-CORRELATION PROCESSING**, Sergey Sergeev, Dr. Galina Ivanchenko, Konstantin Sergeev, Dr. Irina Sanina, Dr. Sergey Korolev, Institute of Geosphere Dynamics of RAS, Russia.....707
- 90. COMPLEX TECHNIQUE OF ASSESSMENT OF SEISMIC EFFECTS OF BLASTING**, Aleksander V. Verkholtantsev, Denis Yu. Shulakov, Philipp G. Verkholtantsev, Pavel G. Butyrin, Mining Institute of the Ural Branch of the Russian academy of sciences, Russia.....715
- 91. COMPLEXATION OF NUCLEAR MAGNETIC RESONANCE AND X-RAY COMPUTED TOMOGRAPHY METHODS FOR THE QUALITATIVE ASSESSMENT OF THE WHOLE CORE POROSITY**, Assist. Prof. Artur Fattakhov, Sr. Lecturer Victor Kosarev, Assist. Prof. Alexander Starovoytov, Kazan (Volga Region) Federal University, Russia.....723
- 92. CONTINUOUS THREE-BODY SYSTEM HEATING TO DETERMINE THERMAL PROPERTIES OF MATERIALS**, Prof. Dr. Sci. Lipaev A. A., Prof. Dr. Sci. Chugunov V. A., Cand. Sci. Lipaev S. A., Korolyov V.A., Almet'yevsk State Oil Institute, Russia731
- 93. CONTRIBUTIONS ABOVE THE REHABILITATION OF HERITAGE BUILDINGS IN ADVANCED DEGRADATION - PRECOLLAPSE DUE TO THE ACTION OF ENVIRONMENTAL FACTORS AND STRONG**

EARTHQUAKES OCCURRED DURING THEIR LIFETIME , PhD. Ing. Anca Mihaela Barbu(Mogosanu), Assoc. Dr. ing. Madalina Xenia Calbureanu, Technical University of Cluj-Napoca, Romania	741
94. DENSITY EARTH'S CRUST MODELS CREATION USING GRAVITY AND SEISMIC DATA , Prof. Dr. Petr Martyshko, Dr. Igor Ladovskii, Denis Byzov, Alexandr Tsidaev, Ural Federal University, Russia	749
95. DETERMINATION OF THE ASSOCIATED PATTERN FOR GEOMAGNETIC PERTURBATIONS , Dr. Laurentiu Asimopolos, Dr. Natalia-Silvia Asimopolos, Geological Institute of Romania, Romania	755
96. DETERMINING CONSTRUCTION PROBLEMS IN ZIGANA TUNNELS (GUMUSHANE-TURKEY) WITH GPR METHOD , Prof. Dr. Selma Kadioglu, Prof. Dr. Yusuf Kağan KADIOĞLU, Dr. Kiymet Deniz, Cer. Eng. Nuh DEMIRBAS, Ankara University, Turkey	763
97. EXAMINATION OF THE ACCESS VIADUCTS OF THE GIURGIU – RUSE BRIDGE USING TEST CONVOYS , Lecturer. Dr. Eng. Corina Chiotan, PhD Eng. Vlad Daniel Urdăreanu, PhD Eng. Dumitru Daniel Morlova, Technical University of Civil Engineering Bucharest, Romania	771
98. EXAMINING THE CONSISTENCY OF FOCAL PARAMETERS PUBLISHED BY NATIONAL EARTHQUAKE AGENCIES OF TURKEY , Dr. Begum Civgin, Prof. Dr. Emmanuel M. Scordilis, Ankara University, Turkey, Dept. of Geophysics, Aristotle University, Greece	779
99. EXTENSIONAL TECTONICS IN VRANCEA ZONE (ROMANIA) INTERPRETED ON RECENT SEISMICITY, GEOPHYSICAL AND GPS DATA , Dumitru IOANE, Irina-Marilena STANCIU, National Institute of Marine Geology and Geoecology GeoEcoMar, Romania	787
100. FINE STRUCTURE OF THE EARTH'S FUNDAMENTAL SPHEROIDAL MODE 0S2 IN GEOMAGNETIC VARIATIONS , Riabova Svetlana, Spivak Alexander, Institute of Geosphere Dynamics of Russian Academy of Science, Russia	795
101. FORWARD MODELING OF VERTICAL ELECTRICAL SOUNDINGS WITH APPLICATIONS IN THE STUDY OF SEA WATER INTRUSIONS , Assoc. Prof. Dr. Bogdan-Mihai NICULESCU, University of Bucharest - Faculty of Geology and Geophysics, Romania.....	803
102. GEOELECTRIC MONITORING OF THE BREBU LANDSLIDE WITHIN THE MOLASSE AREA OF THE WALACHIAN CARPATHIANS , Assoc.Prof. Dr. Mihai MARINESCU, Prof. Dr. Lucian PETRESCU, Eng. Matei MEZINCESCU, Prof. Dr. Cristian MARUNTEANU, Eng. Emilia PESCARU, University of Bucharest - Faculty of Geology and Geophysics, Romania	811

- 103. GEOPHYSICAL AND GEOLOGICAL INVESTIGATIONS OF THE LATE JURASSIC - EARLY CRETACEOUS AQUIFER IN CERNAVODA AREA, SOUTH DOBROGEA (ROMANIA),** Assoc. Prof. Dr. Bogdan-Mihai NICULESCU, University of Bucharest - Faculty of Geology and Geophysics, Romania.....825
- 104. GEOPHYSICAL INVESTIGATION OF THE NEAR SURFACE GROUNDWATER FLOW IN THE AREA OF MELEDIC PLATEAU (BUZAU COUNTY, ROMANIA): PRELIMINARY RESULTS,** Fikos Ilias, Chitea Florina, Mitrofan Horia, Ioane Dumitru, Nutu Lidia, Aristotle University of Thessaloniki, Greece, Faculty of Geology and Geophysics, University of Bucharest, Romania, Institute of Geodynamics of Romanian Academy, Romania833
- 105. GEOPHYSICAL TESTING OF MUNICIPAL WASTE LANDFILLS IN NORTHWESTERN CROATIA,** Full Prof. Dr. Stjepan Strelec, Assoc. Prof. Dr. Kreso Ivandic, PhD.Jasmin Jugt, PhD Filip Dodigovic,, University of Zagreb - Faculty of Geotechnical Engineering, Croatia.....841
- 106. HIGH RESOLUTION GEOPHYSICS OFF DANUBE DELTA’S SHORE LINE FOR THE EVALUATION OF ITS CULTURAL HERITAGE LOAD. CASE STUDY: THE MOUTH OF NEW DUNAVAT PALEO-DISTRIBUTARY,** Dr. Radu George Dimitriu, Dr. George Nutu, Adrian Popa, Barbu, Marius-Bogdan Barbu, National Institute of Marine Geology and Geoecology GeoEcoMar, Romania.....855
- 107. LABORATORY EXPERIMENTS TO STUDY RHEOLOGICAL PROPERTIES OF HIGH VISCOUS OILS,** Prof. Dr.Sc. Irina Guskova, Senior Lecturer Dilyara Gumerova Assoc. Prof. Dinara Khayarova, Postgraduate student Lenar Shaidulli.....863
- 108. MAGNETIC ANOMALIES INTERPRETATION AND EARTH’S CRUST MAGNETIZATION MODEL OF THE NETHER-POLAR AND POLAR URALS,** Dr. Petr Martyshko, Dr. Natalya Fedorova., Dr. Lev Muravyev, Dr. Alexey Roublev, Institute of Geophysics Ural Branch of RAS, Russia, Ural Federal University, Russia869
- 109. METHODS AND ALGORITHMS OF JOINT PROCESSING OF GEOELECTRIC AND SEISMOACOUSTIC SIGNALS IN REAL TIME,** D.Sc. in Engineering Oleg Kuzichkin, PhD. Anastasia Grecheneva, PhD. Artem Bykov, PhD. Nikolay Dorofeev, PhD. Dmitriy Surzhik, Belgorod National Research University, Russia877
- 110. MODELLING OF LOCAL ROCK-SLOPE MICRO-DEFORMATIONS AND TILTS AT ALPE DI ROSCIORO, SWITZERLAND,** Assist. Prof. Dr. Ivo Oprsal, The Institute of Technology and Business in Ceske Budejovice, Czech Republic.....885

111. MODIFIED CONJUGATE GRADIENT METHOD FOR SOLVING THE NONLINEAR INVERSE GRAVIMETRY PROBLEM IN THE CASE OF MULTILAYERED MEDIUM , Prof. DSc. Elena N. Akimova, CSc. Vladimir E. Misilov and Maxim V. Klimov, Ural Federal University, Russia.....	893
112. MONITORING OF BLASTING WORKS FOR TUNNELING AND THEIR IMPACT ON SEISMIC AND NOISE EFFECTS ON SURROUNDING BUILDINGS , Ing. Jan Feher, Ing. Jozef Cambal, Ing. Ladislav Kacmar, Ing. Martin Cvoliga, Ing. Vladimir Sulovec, Technical University of Kosice - Faculty BERG, Slovakia	901
113. NEAR-SURFACE GEOPHYSICS IN THE EXTRAMURAL AREA OF THE LATE ROMAN SETTLEMENT HALMYRIS , Dr. Radu George Dimitriu, Marius-Bogdan Barbu, Irina-Marilena Stanciu, Dr. George Nuțu, Iulian Pojar National Institute of Marine Geology and Geoecology GeoEcoMar, Romania	909
114. NORTHERNMOST HORST IN THE NEOALPINE „HORSTS AND GRABENS“STRUCTURE OF THE WESTERN CARPATHIANS (TATRA AND RUZBACHY HORSTS IN THE NORTHERN SLOVAKIA) IN MAGNETOTELLURIC DATA , Vladimir Bezak, Dusan Majcin, Radek Klanica, Jan Vozar, Dusan Bilcik, Earth Science Institute Slovak Academy of Sciences, Slovakia	917
115. PERCEPTION OF INDUSTRIAL AND HUMAN ACTIVITY-INDUCED VIBRATIONS , Dr. Dobre Daniela, Assoc. Prof. Dr. Dragomir Claudiu-Sorin, URBAN-INCERC, Romania.....	925
116. RAPID SEISMIC INTENSITY ASSESSMENT IN ROMANIA USING INTERNET MACROSEISMOLOGY , Dr. Iren-Adelina Moldovan, Drd. Liviu Manea, Dr. Angela Petruta Constantin, Dr. Bogdan Grecu, Drd. Dragos Toma-Danila, National Institute for Earth Physics, Romania	931
117. REGIONAL ACTIVE FAULTS AS INTERPRETED ON CRUSTAL SEISMICITY, GRAVITY AND MAGNETIC DATA ACROSS THE MOESIAN PLATFORM AND THE NORTH DOBROGEAN OROGEN , Irina-Marilena Stanciu, Dumitru Ioane, National Institute of Marine Geology and Geoecology GeoEcoMar, Romania	939
118. SEISMIC ANALYSIS OF TUNNELS: DIFFERENT APPROACHES , Assoc. Prof. Petr Deev, Dr. Maxim Petruhin, Dr. Alexander Tzukanov, Tula State University, Russia	947
119. SEISMIC MONITORING OF STRUCTURES SUBJECTED TO MEDIUM INTENSITY EARTHQUAKES , Dr. Eng. Stefan Florin Balan, MSc. Eng. Alexandru Tiganescu, Dr. Bogdan Felix Apostol, National Institute for Earth Physics, Romania.....	955

- 120. SEISMIC RECORDER "ERMAK-5" AS THE PART OF THE SYSTEM OF SEISMOLOGICAL MONITORING OF VERKHNEKAMSKOE POTASH DEPOSIT**, PhD Pavel Butyrin, PhD Denis Shulakov, Philipp Verkholantsev, Aleksander Verkholantsev, Maksim Kichigin, Mining Institute of the Ural Branch of the Russian academy of sciences, Russia963
- 121. SEISMICITY AND SEISMOTECTONIC PECULIARITIES IN THE SOUTH-EASTERN PART OF PANNONIAN BASIN: BANLOC-VOITEG SEISMOGENIC STRUCTURE (ROMANIA)**, Dr. Eugen Oros, Dr. Iren Adelina Moldovan, Dr. Mihaela Popa, Mihail Diaconescu, PhD Cristian Ghita, National Institute for Earth Physics, Romania971
- 122. SEISMOTECTONIC RESEARCHES OF THE AREA OF THE ROSTOV NUCLEAR POWER PLANT**, Dr. Galina Ivanchenko, Dr. Svetlana Kishkina, Institute of Geosphere Dynamics of RAS, Russia.....981
- 123. STRESS INVERSION FROM FOCAL MECHANISM OF MODERATE EARTHQUAKES IN ALBANIA**, Dr. Edmond Dushi, Assoc. Prof. Dr. Rexhep Koci, Dr. Enkela Begu, MSc. Rrezart Bozo, Polytechnic University of Tirana, Albania989
- 124. THE ESTIMATION METHOD OF ANISOTROPY COEFFICIENT OF SHEAR WAVE VELOCITIES**, Victor Kosarev, Kazan (Volga Region) Federal University, Russia.....997
- 125. THE EVOLUTION OF TRADITIONAL CONCEPTS FOR MASONRY DWELLINGS IN A SEISMIC RURAL AREA**, Assoc. Prof. Dr. Claudiu-Sorin Dragomir, Lecturer Dr. Eng Dobre Daniela, Senior Researcher, Dr. Eng. Georgescu Emil-Sever, Romania1003
- 126. THE METHOD OF THE CALIBRATION OF THE GEOELECTRIC SYSTEMS OF THE GEODYNAMIC CONTROL**, PhD. Gleb S. Vasilyev, Prof. Oleg R. Kuzichkin, PhD. Anastasia V. Grecheneva, PhD. Nikolay V. Dorofeev, Prof. Vladimir T. Eremenko, Belgorod National Research University, Russia1011
- 127. TIME-DEPENDENT SEISMICITY ALONG THE NORTH ANATOLIAN FAULT ZONE**, Prof. Dr. George Karakaisis, Prof. Dr. Emmanuel Scordili, Prof. Dr. Constantinos Papazachos, Dr. Begüm Çıvgın, Eleni Teza, Aristotle University of Thessaloniki, Greece1019
- 128. TSUNAMI MODELING OF THE SHABLA SEISMIC AREA (BLACK SEA) USING TRIDEC CLOUD SOFTWARE**, Dr. Eng. Raluca Partheniu, Dr. Iren-Adelina Moldovan, Dr. Angela-Petruta Constantin, Eng. Andreea Tolea, Prof. Dr. Eng. Dumitru Ioane, National Institute for Earth Physics, Romania1027
- 129. UNDERGROUND WAVEGUIDE AND THE ECOLOGY PROBLEMS OF VIBRATION FORECAST**, Assoc. Prof. Sergey Makhortykh, Keldysh Institute of Applied Mathematics Russian Academy of Sciences, Russia.....1035

130. UTILISATION OF ELECTRICAL RESISTIVITY TOMOGRAPHY FOR THE CALCULATION OF ERODED PARTS OF NON-STABLE ROCK BLOCKS VOLUMES, Ing. Eliska Fiedlerova, Ing. PhD Marcel Brejcha, Ing. Alfred Prasil, Ing. PhD Ivan Bily, Ing. Petr Vybiral, Czech Republic.....1043

