

Contents

Urszula Aleksander-Kwaterczak, Aleksandra Rajca Urban soil contamination with lead and cadmium in the playgrounds located near busy streets in Cracow (South Poland)	7
Ewa Muszyńska, Ewa Hanus-Fajerska, Krystyna Ciarkowska Studies on <i>Gypsophila fastigiata</i> parameters verifying its suitability to reclamation of post-flotation Zn-Pb wastes	17
Katarzyna Kabzińska, Małgorzata Szczesio, Jacek Świętosławski, Anna Turek The effect of bottom sediments on the content of heavy metals in meadow soils	25
Agnieszka Dołhańczuk-Śródka, Zbigniew Ziembik, Grzegorz Kusza Effect of soil management on its radioisotopic composition	33
Krzysztof Wołowicz, Grzegorz Malina Laboratory studies on benzene sorption processes in clay formations	41
ABSTRACTS	
Barbro Andersson Age and metamorphic conditions of the Tjeliken garnet – phengite gneiss (Swedish Caledonides)	55
Anna Andrychowicz, Krystian Kawa Problem of water supply in the Ostra and Zawadka catchments in Dębica area (Poland)	57
Tomáš Bakalár, Štefan Sabo, Milan Búgel, Branislav Loch Influence of zeolite suspension concentration on microfiltration characteristics	59
Peter Barna New Species of <i>Anaplecta</i> BURMEISTER, 1838 (Blattaria) from Chiapas Amber, Mexico	61
Mirosława Bazarnik Terrestrial Laser Scanning 3D as a useful method for monitoring of urban areas endangered by landslides	63
Jana Bučová, Miroslav Bielik, Roman Pašteka, Dušan Plašienka Gravity measurements in the Pieniny Klippen Belt (Western Slovakia)	65
Patrycja Chlebowska, Maciej Manecki, Maria Młynarska & Bartosz Puzio Arsenate substitution in synthetic hydroxylapatite – structural characterization of the $\text{Ca}_5(\text{PO}_4)_x(\text{AsO}_4)_{3-x}\text{OH}$ solid solution	66
Katarzyna Dudzisz, Rafał Szaniawski, Krzysztof Michalski, Krzysztof Krajewski Magnetic properties of Triassic rocks of Svalbard Archipelago: preliminary results	68

Igor Ďuriška Analysis of the Neogene Stretava Formation in the selected parts of the East Slovakian Basin	69
Maciej Dwornik, Anna Pięta Influence of resolution in spatial and time for numerical modeling of levees	71
Agnieszka Działuk, Dariusz Malczewski, Jerzy Żaba, Maria Dziurawicz Laboratory measurements of natural radioactivity in selected igneous rocks of the Opava Mountains region	73
Vladimir V. Efremov Microcracks in granitoids of the Aldan shield and its effect on mechanical properties	75
Kamil Fekete Analysis of lithology and microfacies of the Lower Cretaceous “Urgonian” complex in the Manín Straits section, the Manín Unit (Western Carpathians)	76
Mikuláš Fekete The origin of the uranium – molybdenum deposit Kurišková	78
Tomáš Fuksi Multivariate paleoecological analyses of Badenian and Sarmatian molluscan assemblages from the NW Vienna Basin (Rohožník-Konopiská, Slovakia)	80
Joanna Górka, Anna Świerczewska, Artur Krzyżak Significance of pressure solution structures analysis for fluid flow studies – examples from Struga-1 well (Zechstein Main Dolomite; W Poland): first results	82
Piotr Guzy, Grzegorz Dubiel The possibility of using a portable analyzer of the soil pH in the fieldwork	84
Magdalena Habrat, Przemysław Lisowski Applying image mining to the analysis of rock structure images	86
Daniel Hráček High-resolution stratigraphy of the Lower Badenian deposits in selected cores of the Carpathian Foredeep	88
Mateusz Jabłoński, Agnieszka Ochałek Geoportal of mining objects in Lesser Poland	89
Sara Johansson The Helags Mountain, Sweden: Another piece in the Caledonian puzzle	90
Sandra Kejíková Hydrogeological problems of the Křtinský valley in the Moravian karst	92
Iwona Klonowska Microdiamonds in paragneisses from the allochthonous unit of the Swedish Caledonides: precious testimony of the UHP metamorphism	94

Michał Kniotek, Michał Lupa, Przemysław Lisowski The analysis of vertical displacements in Upper Silesian Coal Basin area using DInSAR and PSInSAR methods	96
Martina Kočová Veselská, Tomáš Kočí Taphonomy, distribution and palaeoecology of stalked barnacles (Crustacea, Cirripedia) from the Bohemian Cretaceous Basin, Czech Republic	97
Anna Koteja, Jakub Matusik Preparation and characterization of azobenzene-smectite photoactive mineral nanomaterials	99
Joanna Kowalczyk, Lucyna Natkaniec-Nowak, Jacek Wachowiak Larimar – a Unique Pectolite Rock from the Dominican Republic	101
Przemysław Lisowski, Magdalena Habrat, Michał Kniotek Tools to store information about the environment	103
Agata Majer, Dawid Kozień, Joanna Michalec & Maciej Manecki Environmental assesment of Skawina area based on selected parameters	104
Dmitry A. Mamontov Paleoecological analasis of the miospore assemblages from the borehole 39, Moscow region, Russia	106
Paulina Maziarz, Anna Prokop, Jakub Matusik A comparative study on the removal of Pb(II), Zn(II), Cd(II) and As(V) by natural, acid activated and calcinated halloysite	108
Suman Mehta Radio Magnetotelluric (RMT) measurement over lake Mälaren, Sweden: a case study	110
Joanna Motyka, Joanna Oknińska & Maciej Manecki Synthesis and mineralogical characteristics of hydroxylapatite-hydroxylpyromorphite solid solution series $\text{Ca}_5(\text{PO}_4)_3\text{OH} - \text{Pb}_5(\text{PO}_4)_3\text{OH}$	112
Beata Naglik, Lucyna Natkaniec-Nowak Pickeringite from the Pieprzowe Mts. (the Holy Cross Mts., Central Poland)	114
Justyna Nosal Reservoir parameters of deeply buried sandstones and their impact on fluid flow – a case study of the Rotliegend Sandstones from the Polish Permian Basin	116
Filip Opálka Landslide and rockfall analysis of the western part of the Pavlov Hills in southern Moravia	117
Aleksey Pakhalko Rocks and ores of the PGE-bearing Vuruchuaivench massif (Kola Peninsula, Russia)	118
Magdalena Pańczyk, Jakub Bazarnik, Jerzy Nawrocki, Leszek Giro, Ewa Krzemińska Application of handheld XRF spectrometers for estimation of Rare Earth Elements content in alkaline intrusions from the East European Craton (NE Poland) – preliminary results	120

Gabriela Pieczara, Grzegorz Rzepa, Adam Gaweł, Anna Tomczyk “Four-letters” ($\gamma \rightarrow \epsilon \rightarrow \beta \rightarrow \alpha$) thermal transformation of Si-rich ferrihydrite	121
Róbert Polc, Lubomír Jurkovič Grain size and leaching test analysis of fly ash from sludge incinerator	123
Anna Prokop, Paulina Maziarz, Jakub Matusik Removal of selected anions by raw halloysite and smectite clay	125
Natalia Radzik, Anna Świerczewska, Artur Krzyżak Identification of tectonic microstructures in flysch sandstones of the Outer Carpathians using X-ray nanotomography and nuclear magnetic resonance – first results	127
Samuel Rybár, Katarína Šarinová, Michal Šujan, Eva Halásová, Natália Hudáčková, Adriena Zlinska, Michal Kováč, Marianna Kováčová, Andrej Ruman, Lucia Ledvényiová Evolution of depositional systems and sedimentary cycles in Želiezovce Depression of the Danube Basin	129
Štefan Sabo, Tomáš Bakalár, Milan Búgel, Henrieta Pavolová Removal of heavy metals from waste water using a hybrid membrane process	130
Mária Šimurková Metasomatic column with the apobasite listvenites end-member from the Slovinky-Gelnica ore field (Gemic Superunit, Western Carpathians) and comparison to their type localities from Ural	132
Marta Sobstyl, Mateusz Jabłoński Visualization of mining and geological data based on coal mine KWK “Knurów-Szczygłowice” Ruch “Knurów”	134
Urszula Solecka, Tomasz Bajda, Justyna Topolska, Maciej Manecki Structural and vibrational behaviour of pyromorphite-vanadinite solid solution series	135
Jacek Stanisław, Klaudia Korzec, Aleksandra Borecka ISMOP Project (IT System of Levee Monitoring) as an example of integrated monitoring of levee	137
Michal Šujan, Michal Kováč, Samuel Rybár, Katarína Šarinová Statistical analysis of the Late Miocene sequences on the southeastern Danube Basin margin based on borehole data	140
Dorota Środek, Irina O. Galuskina Second occurrence of the new mineral harmunite CaFe_2O_4 , Negev Desert, Israel	142
Eryk Święch Uncertainties in microseismic event location analysis	143
Rudolf Tornyai & Matej Lúchava Using statistical analyses to assess landslide hazard	144
Peter Varga, Jaroslav Lexa, Peter Uhlík, Michal Rajnoha Characterization of perlites from Jastrabá and Lehôtka pod Brehmi deposits	146
Gabriel Ząbek, Michał Michna Fracture network modelling for shale rocks – a case study from the Baltic Basin	147