

## Contents of volume 63 (2019)

Sheida AKMALI, Abbas ASIABANHA and Shahrooz HAGHNAZAR – Cretaceous magmatic evolution in the Deylaman igneous complex, Alborz zone, Iran: change from extensional to compressional regime, 4: 757–770

Witold Paweł ALEXANDROWICZ – Record of environmental changes and fluvial phases in the Late Holocene within the area of Podhale (the Carpathians, southern Poland): studies in the Falsztynski valley, 4: 629–642

Viacheslav ANDREYCHOUK, Tomasz BLACHOWICZ and Maciej DŁUŻEWSKI – Fractal analysis of tropical karst relief – South China Karst case study, 4: 729–740

Assimina ANTONARAKOU, George KONTAKIOTIS, Aristomenis P. KARAGEORGIS, Eva BESIOU, Stergios ZARKOGIANNIS, Hara DRINIA, Graham P. MORTYN and Efthymis TRIPSANAS – Eco-biostratigraphic advances in late Quaternary geochronology and palaeoclimate: the marginal Gulf of Mexico analogue, 1: 178–191

John S. ARMSTRONG-ALTRIN, Alfonso V. BOTELLO, Susana F. VILLANUEVA and Luis A. SOTO – Geochemistry of surface sediments from the northwestern Gulf of Mexico: implications for provenance and heavy metal contamination, 3: 522–538

Barbara BIELOWICZ and Paweł BARAN – CO<sub>2</sub> sorption properties of selected lithotypes of lignite from Polish deposits, 4: 786–800

Tomasz BRACHANIEC – Susceptibility of various tektite types to fluvial abrasion, 1: 150–161

Krzysztof BUCZEK – Dating landslides in the Gorce Mts. (Polish Outer Carpathians) – preliminary results, 4: 849–860

Urszula BUGAJ, Krzysztof NEJBERT, Sławomir ILNICKI, Piotr WIECIŃSKI, Tomasz ONYSZCZUK, Halina GARBACZ and Piotr WŁODARCZAK – Copper sulphosalts in early metallurgy (2600–1900 BC) – chemical-mineralogical investigation of artefacts from southern Poland, 2: 302–318

Lilianna CHOMIAK, Piotr MACIASZEK, Robert WACHOCKI, Marek WIDERA and Tomasz ZIELIŃSKI – Seismically-induced soft-sediment deformation in crevasse-splay microdelta deposits (Middle Miocene, central Poland), 1: 162–177

Piotr DEMCZUK, Tymoteusz ZYDROŃ and Marcin SIŁUCH – Rainfall thresholds for the occurrence of shallow landslides determined for slopes in the Nowy Wiśnicz Foothills (Polish Flysch Carpathians), 4: 822–838

Robert DUDA and Paweł KOWALCZYK – Assessment of factors affecting the intrinsic vulnerability of groundwater rated by the mean residence time estimation method, 1: 126–138

Robert DUDA and Justyna STANEK – Preliminary long-term predictive modelling of groundwater resources in view of climate change – a case study from eastern Poland, 4: 643–656

Bui Viet DUNG, Karl STATTEGGER, Nguyen Van KIEU, Nguyen Trung THANH, Bui Xuan THONG, Pham Nguyen Ha VU, Ha Quang MAN and Pham Hong TRANG – Sediment discharge and storage over the last deglacial highstand period on the central Vietnam shelf off Nha Trang, 2: 395–406

Abdolnaser FAZLNIA – Geochemical and tectonic significance of Arbat alkali gabbro-monzonite-syenite intrusions, Urumieh-Dokhtar Magmatic Arc, Iran, 1: 16–29

Anatoliy R. GALAMAY, Fanwei MENG, Krzysztof BUKOWSKI, Aleksandr LYUBCHAK, Yongsheng ZHANG and Pei NI – Calculation of salt basin depth using fluid inclusions in halite from the Ordovician Ordos Basin in China, 3: 619–628

Zeynab GHARAMOHAMMADI, Ali KANANIAN and Mohsen ELIASI – Geochemical and fractal analysis of enclaves in the Dehe-Bala intrusion, (Northwestern Iran): a new concept in the interpretation of the crust–mantle interaction process, 3: 505–521

Oleh HNYLKO, Ihor TSUKORNYK, Larysa HENERALOVA and Oleksiy DVORZHAK – A Late Carboniferous olistostrome at the front of the Southern Tian Shan nappes (Kadamzhai and Khaidarkan deposits, Kyrgyzstan), 2: 407–423

Anna HRYNOWIECKA, Marcin ŻARSKI, Wojciech DRZEWICKI – The rank of climatic oscillations during MIS 11c (OHO and YHO) and post-interglacial cooling during MIS 11b and MIS 11a in eastern Poland, 2: 375–394

Ali IMAMALIPOUR and Samaneh BARAK – Geochemistry and tectonic setting of the volcanic host rocks of VMS mineralisation in the Qezil Dash area, NW Iran: implications for prospecting of Cyprus-type VMS deposits in the Khoy ophiolite, 3: 435–448

Leszek JANKOWSKI and Anna WYSOCKA – Occurrence of clastic injectites in the Oligocene strata of the Carpathians and their significance in unravelling the Paleogene and Neogene evolution of the Carpathian orogeny (Poland, Ukraine and Romania), 1: 106–125

Maciej KANIA – Methodology and potential of image analysis and unconventional use of GIS tools in determining grain size distribution and fractal dimension: a case study of fault rocks in the Western Tatra Mts. (Western Carpathians, Poland), 2: 345–358

Aleksander KOWALSKI, Damian KASZA and Jarosław WAJS – Structural control of mass movements on slopes formed of magmatic and metamorphic rocks: the case study of Wielisławka Mt. (SW Poland, Sudetes Mts.), 3: 460–477

Dorota KRAWCZYK, Michałina FLIEGER-SZYMAŃSKA and Dariusz WANATOWSKI – Liquid limit of selected postglacial soils from west-central Poland, 4: 711–720

Marek KRĄPIEC, Natalia NAWROCKA, Włodzimierz MARGIELEWSKI and Elżbieta SZYCHOWSKA-KRĄPIEC – Dendrogeomorphological analysis of the Sawicki Landslide in the Beskid Niski Mountains (S Poland), 4: 801–810

Łukasz KRUSZEWSKI – Secondary sulphate minerals from Bhanine Valley coals (South Lebanon) – a crystallochemical and geochemical study, 1: 65–87

Damian Gerard LODOWSKI, Ireneusz Piotr WALASZCZYK and Eugen GRĀDINARU – Turonian-Coniacian (Upper Cretaceous) of the Babadag Basin (North Dobrogea, Romania): integrated biostratigraphy and microfacies succession, 1: 39–64

Katarzyna ŁUSZCZYŃSKA, Ireneusz MALIK, Małgorzata WISTUBA and Marek KRĄPIEC – Assessment of landslide hazard from tree-ring eccentricity and from compression wood – a comparison, 2: 296–301

Dariusz MALCZEWSKI and Jerzy ŻABA – *In situ* gamma-ray measurements of <sup>40</sup>K, <sup>232</sup>Th and <sup>238</sup>U in high-grade metamorphic rocks from the Sowie Mountains (Sudetes, SW Poland), 3: 493–504

Mariola MARSZAŁEK, Krzysztof DUDEK, Adam GAWEŁ and Jerzy CZERNY – Mineralogical and geochemical studies of secondary mineral assemblages related to deterioration of building materials, 4: 683–698

Mohamed Haythem MSADDEK, Dhekra SOUSSI, Yahya MOUMNI, Ismail CHENINI, Nacira BOUAZIZ and Mahmoud DLALA – Groundwater potentiality assessment in an arid zone using a statistical approach and multi-criteria evaluation, southwestern Tunisia, 1: 3–15

Slavomír NEHYBA, Helena GILÍKOVÁ, Pavla Tomanová PETROVÁ, Jiří OTAVA and Zuzana SKÁCELOVÁ – Evolution of a sedimentary infill of a palaeovalley at a distal margin of the peripheral foreland basin, 2: 319–344

Marek NIEĆ and Maciej PAWLICKOWSKI – Dolomite-illitic rocks (dolillite) – the product of hydrothermal replacement of carbonate rocks in the Holy Cross Mts., Poland – a possible guide to ores, 2: 275–295

- Piotr OLCHOWY, Marcin KRAJEWSKI and Ireneusz FELISIAK – Late Jurassic facies succession of the Kleszczów Graben area (southern border of the Łódź Depression, peri-Tethyan shelf, central Poland), 4: 657–682
- Mohammad PARANDAVAR and Fatemeh HADAVI – Identification of the Oligocene-Miocene boundary in the Central Iran Basin (Qom Formation): calcareous nannofossil evidences, 2: 215–229
- Fatima PAWEŁCZYK, Karolina BLOOM, Witold JUCHA, Adam MICHĘCZYŃSKI, Daniel OKUPNY, Jarosław SIKORSKI, Julia TOMKOWIAK, Ewelina ZAJĄC and Nathalie FAGEL – Reconstruction of atmospheric lead and heavy metal pollution in the Otrębowie Brzegi peatland (S Poland), 3: 568–585
- Zdzisław PETECKI – Ideal body analysis of the Pomerania Gravity Low (northern Poland), 3: 558–567
- Jadwiga PIECZONKA, Chau Dinh NGUYEN, Adam PIESTRZYŃSKI and Phon Khanh LE – Timing of ore mineralization using ore mineralogy and U-Pb dating, Iron Oxide Copper Gold Sin Quyen deposit, North Vietnam, 4: 811–876
- Grzegorz PIEŃKOWSKI, Michelangelo MARTINI and Mildred ZEPEDA-MARTÍNEZ – Bajocian transgressive-regressive sequences of the Tecocoyunca Group, southern Mexico, with maximum flooding surfaces marked by *Thalassinoides*, 3: 449–459
- Antonín PŘICHYSTAL, Pavel BURGERT and Petr GADAS – Marble from Neolithic quarries at the Bílý Kámen Hill near Sázava (Czech Republic) and its petrographic-geochemical characterization, 4: 811–821
- Marián PUTIŠ, Martin DANIŠÍK, Pavol SIMAN, Ondrej NEMEC, Čestmír TOMEK and Peter RUŽIČKA – Cretaceous and Eocene tectono-thermal events determined in the Inner Western Carpathians orogenic front Infratratricum, 2: 248–274
- Kaikhosrov RADMARD, Hassan ZAMANIAN, Mohammad Reza HOSSEINZADEH, Ahmad Ahmadi KHALAJI – Constraints on ore formation conditions at the Mazra'eh Shadi epithermal deposit, NE Tabriz, Iran: evidences from geochemistry, sulphur isotope, quartz textures and fluid inclusion studies, 2: 230–247
- Vartan SIMMONDS, Ryan MATHUR and David SELBY – Rhenium abundance in molybdenites: a case study on vein-type Cu-Mo-Au mineralisation in the Qarachilar area, Sungun porphyry Cu and Siah Kamar porphyry Mo deposits, NW Iran, 3: 478–492
- Tatiana SOLOVEY – Wetlands of the Volhynian Polissia (Western Ukraine): classification, natural conditions of distribution and spatial difference, 1: 139–149
- Jacek STANISZ and Zenon PILECKI – Pore pressure profiling in Siercza landslide colluvium in the Carpathian flysch using a Cone Penetration Test (CPTU), 4: 839–848
- Arleta SUCHOCKA, Marcin BARSKI and Małgorzata BIEŃKOWSKA-WASILUK – Dinoflagellate cyst stratigraphy of the Popiele Member and Menilit Formation in the Boryslav–Pokuttya Nappe (Aksmanice, SE Poland), 3: 539–557
- Andrea SVOBODOVÁ, Tomáš KOČÍ, Martina KOČOVÁ VESELSKÁ, Bruno FERRÉ, Martin KOŠ ÁK, Stanislav ČECH and Markéta CHROUSTOVÁ – New biostratigraphic evidence (calcareous nannofossils, ostracods, foraminifers, ammonites, inoceramids) on the Middle Coniacian in the eastern Bohemian Cretaceous Basin, 3: 586–602
- Maciej Krzysztof SWĘD and Agata DUCZMAL-CZERNIKIEWICZ – Geochemical and mineralogical characteristics of calamines from the Olkus zinc and lead ore district (South Poland), 4: 699–710
- Tomasz TOBOŁA, Katarzyna CYRAN and Marek REMBIŚ – Microhardness analysis of halite from different salt-bearing formations, 4: 771–785
- Justyna TOPOLSKA, Tomasz BAJDA, Bartosz PUZIO, Maciej MANEKI and Gabriela KOZUB-BUDZYŃ – Time constraints on experimental studies of lead apatites, 4: 721–728
- Răzvan UNGUREANU, Emanoil SĂSĂRAN, Ioan I. BUCUR, Cristian Victor MIRCESCU, Alexandra UNGUREANU and Ciprian Gheorghita UNGUR – The Aptian Gura Râului conglomerates (Southern Carpathians): remains of an extended subaqueous gravity flow deposit from the eastern flank of the Getic Nappe, 1: 88–105
- Szymon UŚCINOWICZ, Grzegorz ADAMIEC, Andrzej BLUSZCZ, Wojciech JEGLIŃSKI, Leszek JURYS, Grażyna MIOTK-SZPIGANOWICZ, Piotr MOSKA, Urszula PACZEK, Natalia PIOTROWSKA, Grzegorz PORĘBA, Piotr PRZEZDZIECKI and Grzegorz UŚCINOWICZ – Chronology of the last ice sheet decay on the southern Baltic area based on dating of glaciofluvial and ice-dammed lake deposits, 1: 192–207
- Marek VĐAČNÝ, Jozef MICHALÍK, and Otilia LINTNEROVÁ – Tectonic discrimination of siliciclastic sedimentary record of the northern Tethyan margin at the end of the Triassic, 1: 30–38
- Hubert WIERZBOWSKI – Palaeoenvironmental changes recorded in the oxygen and carbon isotope composition of Kimmeridgian (Upper Jurassic) carbonates from central Poland, 2: 359–374
- Sara WRÓBLEWSKA and Małgorzata KOZŁOWSKA – Influence of primary composition and diagenetic mineralization on natural gamma-ray and density logs of Carboniferous sandstones of the Dęblin Formation, 4: 741–756
- Ehsan ZAMANIYAN, Mohammad KHANEHBAD, Reza MOUSSAVI-HARAMI and Asadollah MAHBOUBI – Geochemistry of shales of the Qadir Member (Nayband Formation, Upper Triassic), East Central Iran (Tabas Block): implications for provenance and palaeogeography, 3: 603–618

## DISCUSSION

Lilianna CHOMIAK, Piotr MACIASZEK, Robert WACHOCKI, Marek WIDERA and Tomasz ZIELIŃSKI – Seismically induced soft-sediment deformation in crevasse-splay microdelta deposits (Middle Miocene, central Poland) – reply, 2: 429–433

A.J. (Tom) van LOON – Seismically induced soft-sediment deformation in crevasse-splay microdelta deposits (Middle Miocene, central Poland) – comment, 2: 424–428

Piotr OLCHOWY and Marcin KRAJEWSKI – The Early Kimmeridgian succession at Kodrąb (Radomsko elevation, central Poland) and its palaeogeographical and palaeotectonic implications – discussion, 1: 208–210

Andrzej WIERZBOWSKI and Ewa GŁOWNIAK – The Early Kimmeridgian succession at Kodrąb (Radomsko elevation, central Poland) and its palaeogeographical and palaeotectonic implications – reply, 1: 211–213