

“GEOSCIENSES 2010”

PROGRAM

Thursday, December 9, 2010

08:30–09:15 **Registration**
09:15–09:30 **Opening Ceremony**
09:30–10:00 **Stefan Bonchev and Strashimir Dimitrov – Creators
of the modern Bulgarian geology – Ivan Zagorchev**

Session: Structural and Regional Geology
Chairman: Radoslav Nakov

- 10:00–10:20 “Kozhuh volcano” (SW Bulgaria) – arrangement of the puzzle, 2010
*Alexandra Harkovska, Peter S. Petrov, Zlatka Milakovska,
Veselina Nakova*
- 10:20–10:40 Palaeogene of Samothraki Island: Correlations with the basins
of Thrace and Rhodope
*Ivan Zagorchev, Daria Ivanova, Kristalina Stoykova,
Davide Bassi*
- 10:40–11:00 Timing of extensional exhumation of the Eastern Rhodope high-
grade basement (Bulgaria): $^{40}\text{Ar}/^{39}\text{Ar}$ age constraints
Nikolay Bonev, Richard Spikings, Robert Moritz, Peter Marchev
U-Pb LA-ICP/MS zircon geochronology of metamorphic
basement and Oligocene volcanic rocks from the SE Rhodopes:
inferences for the geological history of the Eastern Rhodope
crystalline basement
*Nikolay Bonev, Peter Marchev, Maria Ovtcharova,
Robert Moritz, Alexey Ulianov*

11:00 – 11:20 **C o f f e e B r e a k**

Session: Structural and Regional Geology
Chairman: Radoslav Nakov

- 11:20–11:40 $^{40}\text{Ar}/^{39}\text{Ar}$ geochronologic constrains of a Variscan transpression
in Central Stara Planina Mountain
*Ianko Gerdjikov, Gilles Ruffet, Anna Lazarova, Dian Vangelov,
Eleonora Balkanska, Kamen Bonev*

- 11:40–12:00 Structures demonstrating the belonging of Emine Formation and Tepetarla Formation to Srednogorie tectonic zone
Mitko Paskalev
- 12:00–12:20 Tectonic geomorphology of the Karlovo basin as revealed by quantitative analysis of DEM
Dian Vangelov, Ianko Gerdjikov, Svetoslav Dimitrov, Petyo Benov

Session: Geochemistry and Petrology

Chairman: Radoslav Nakov

- 12:20–12:40 The Sakar batholith – new look at its petrology, geochemistry and magmatic evolution
Borislav Kamenov, Vassil Vergilov, Christo Dabovski, Iliya Vergilov, Lyudmila Ivchinova
- 12:40–13:00 Late Cretaceous subduction and magmatism in the Rhodopes: geochronological and isotope-geochemical evidence
Albrecht von Quadt, Irena Peytcheva, Stoyan Sarov, Anthi Liati
- 13:00–14:00 **L u n c h b r e a k**

Session: Paleontology, Stratigraphy and Sedimentology

Chairman: Dimitar Sinnyovsky

- 14:00–14:20 The Salash Formation in Western Srednogorie: lithology, age and boundaries
Silviya Petrova, Iskra Lakova, Daria Ivanova
- 14:20–14:40 Integrated stratigraphy and correlation of the platform-to-basin Upper Jurassic–Lower Cretaceous carbonate sediments across the Bulgarian-Serbian border
Daria Ivanova, Elena Koleva-Rekalova, Iskra Lakova, Kristalina Stoykova, Marin Ivanov, Lubomir Metodiev, Sylvia Petrova, Platon Tchoumatchenco, Dragoman Rabrenović, Vladan Radulović, Nenad Malešević
- 14:40–15:00 Palynology of the Cenomanian–Turonian Rehkogelgraben boundary section in the Ultrahelvetic Zone, Eastern Alps, Austria
Polina Pavlishina, Michael Wagreich
- 15:00–15:20 Stratigraphy and relations of the Upper Cretaceous of NW Bulgaria (Kula tectonic unit) and Eastern Serbia (Timok eruptive area)
Kristalina Stoykova, Dragoman Rabrenović, Marin Ivanov, Ivana Mojsic

- 15:20–15:40 Palynological evidence for short-term vegetation and climate change in the Late Miocene of West Bulgaria
Dimiter Ivanov
- 15:40–16:00 Holoplanktonic gastropods from the Middle Miocene of Bulgaria and their stratigraphical significance
Petar Nikolov
- 16:00–16:20 **C o f f e e B r e a k**

Session: Geochemistry and Mineralogy

Chairman: Mihail Tarassov

- 16:20–16:40 Alteration processes in acid pyroclastic rocks in Eastern Rhodopes, Bulgaria
Georgi Kirov, Rossen Nedialkov, Tsveta Stanimirova
- 16:40–17:00 State-of-the-art electronic bibliographic data base on minerals from Bulgaria
Vladislav Kostov-Kytin, Ruslan I. Kostov, Petya Ivanova
- 17:00–17:20 Geochemical features of calcretized areas from the Tundzha depression, Southeast Bulgaria
Ivan Dimitrov, Dimitar Sachkov, Boris Valchev, Katya Vasileva
- 17:20–17:40 Experimental study of formation and relationship between double hydroxide minerals of calcium
Stefka Dencheva
- 17:40–18:00 Stream-sediment dividing and prognoses for mineral deposits in Smolyan administrative district, Bulgaria
Oleg Vitov
- 18:00–19:00 **P o s t e r S e s s i o n w i t h a g l a s s o f w i n e**

Friday, December 10, 2010

Session: Petrology

Chairman: Borislav Kamenov

- 09:00–09:20 Fluid enhanced metamorphic transformations of granitoid rocks into orthoschists, East Rhodopes
Lyubomira Macheva, Valentin Ganev

- 09:20–09:40 Late-Jurassic granulite facies metamorphism of garnet-bearing metabasic rocks from the Chepelare area, Central Rhodope
Milena Georgieva, Valerie Bosse, Zlatka Cherneva, Pierre Gautier, Ianko Gerdjikov, Massimo Tiepolo
- 09:40–10:00 The subsolidus segregation of leucocratic bands – a possible mechanism for formation of banded structures in metamorphic rocks
Philip Machev
- 10:00–10:20 Metasomatic reaction phenomena from entrainment to cooling on the surface: evidence from mantle peridotite xenoliths from Moesian Platform
Peter Marchev, Shoji Arai, Orlando Vaselli, Fidel Costa, Hilary Downes
- 10:20–10:40 Information about the behavior of S and Cl during the formation of the Plana pluton
Rossen Nedialkov, Lora Bidzhova, Alexander Filipov
- 10:40–11:00 Geological, petrographic and geochemical peculiarities of the effusive rocks from the area of Zlatusha village (Western Srednogie)
Stefan Velev, Rossen Nedialkov
- 11:00–11:20 **C o f f e e B r e a k**

Session: Petrology

Chairman: Zlatka Cherneva

- 11:20–11:40 Geochemistry of alunite group minerals in hydrothermally altered rocks from the Asarel porphyry copper deposit, Central Srednogie
Atanas Hikov, Catherine Lerouge, Nadezhda Velinova
- 11:40–12:00 Mineral chemistry of the collision-related acid Paleogene volcanic rocks of the Eastern Rhodopes, Bulgaria
Yotzo Yanev, Rositsa Ivanova
- 12:00–12:20 Major and trace element compositions of clinopyroxenes from Zvezdel palaeovolcano (Eastern Rhodope): petrogenetic implications
Raya Raicheva, Peter Marchev, Elitsa Stefanova

Session: Hydrogeology and Engineering geology

Chairman: Zlatka Cherneva

- 12:20–12:40 Modeling of ⁹⁰Sr migration in clays with respect to soil adsorption properties using HPI
Dimitar Antonov

12:40–13:00 Engineering geological phenomena and slope stability analysis
of the quarry of Merlebach, France
Boyko Berov

13:00–14:00 **L u n c h b r e a k**

Session: Environmental Studies and Natural Hazards

Chairman: Nikolai Dobrev

14:00–14:20 Seismogenic coseismic displacements of the continental plates
resulting from the large subduction earthquakes Chile (Mw8.8,
2010) and Sumatra (Mw9.1, 2004)
Boyko Rangelov

14:20–14:40 Chemical composition and heavy metal partition in mining-
affected surface waters and stream sediments in Chiprovtsi area,
NW Bulgaria
Vassilka Mladenova, Tzvetan Kotsev, Zornitza Cholakova

14:40–15:00 Requirements to the limestones used for flue gas
desulphurisation in Maritza-Iztok Coal Basin
Peter I. Petrov

15:00–15:20 New features about wave pictures of seismic profiles for determi-
nation of the sediments formed during raise and fall of sea level
Orlin Dimitrov

15:20–15:40 Three-dimensional spatial analysis of the upwelling along
the Bulgarian Black Sea coast
Dobromir Grozdev

15:40–16:00 **C o f f e e B r e a k**

Session: Geological Heritage, Geoarcheology and Interdisciplinary Studies

Chairman: Strashimir Strashimirov

16:00–16:20 Permanente geological exhibition in the Regional historical
museum – Vratsa
Angel Kunov, Iliya Stoyanov

16:20–16:40 Popularization of the Bulgarian geological heritage
*Dimitar Sinnyovsky, Venelin Jeleu, Boris Valchev,
Dimka Sinnyovska*

16:40–17:00 Archaeometallurgical evidences for exploitation of copper
deposits from the Medni Rid Ridge in the fifth millennium BC
Petar Leshtakov

- 17:00–17:20 The beginning of the loess research in Bulgaria
(studies till the 20-th century)
Tivadar Gaudenyi, Mladjen Jovanovic
- 17:20–17:40 About the Black Sea expedition in 2009
*Daniel Cohen, Krasimira Slavova, Petko Dimitrov,
Veselin Peychev, Dimitar Dimitrov, Atanas Vasilev, Preslav Peev*
- 18:30 Cocktail for the participants and the traditional “Christmas party of the ecologist” in National Museum “Man and Earth”.
A presentation of the book of Ivanka Topolova “The Gaia secrets”**

POSTER SESSION

Thursday, December 9, 2010

18:00 – 19:00

1. Early diagenetic structures in Middle Devonian (Givetian) sabkha evaporites from the Moesian Platform (Northeastern Bulgaria)
Polina Andreeva
2. Meso- and microstructural characteristics of deformed carbonate sediments within the zone of Botev Vrah thrust, Central Stara Planina Mountain
Eleonora Balkanska, Ianko Gerdjikov
3. Determination of organic maturity and paleotemperatures based on conodonts by CAI (Conodont Alteration Index) method
Iliana Boncheva
4. New data on the presence of the genus *Ficus* (fam. Moraceae) in Bulgarian Paleogene flora
Vladimir Bozukov, Dimiter Ivanov, Torsten Utescher
5. On the geodynamics of the Eastern Balkans based on some seismic and GPS data
Emil Botev, Ivan Georgiev, Dimitar Dimitrov
6. Petrographical typification of the Triassic dolostones from Elovitsa (Melyane) anticline, NW Bulgaria
Athanas Chatalov, Tsvetelina Petkova
7. Advantages of borehole-scanning geophysics during the drill hole documentation
Marian Damyanov, Klaus Brauch, Jurgis Claudius, Kamelia Nedkova, Nikolay Petrov
8. Determination of crustal strain from GPS and triangulation data in Central West Bulgaria
Nikolay Dimitrov, Ivan Georgiev
9. Palynological evidence for Pennsylvanian extra-basinal vegetation in Atlantic Canada
Tatyana Dimitrova, Christopher Cleal, Barry Thomas

10. Arsenian marcasite in the barite-ankerite assemblage from the Chiprovtsi deposit, NW Bulgaria
Dimitrina Dimitrova, Tzvetoslav Iliev
11. Features of the debris flow source zone in the northern part of Kresna Gorge
Nikolai Dobrev, Madlena Georgieva
12. Petrology and age of Kozhuh volcano, SW Bulgaria
Stoyan Georgiev, Peter Marchev, Valentin Grozdev, Albrecht von Quadt, Irena Peytcheva
13. The Studen Kladenets lava flow – petrology and structural features
Stoyan Georgiev, Borislav Yordanov, Yotzo Yanev
14. Geochemical and geochronological data of the Tertiary magmatic rocks in Kyustendil area, SW Bulgaria
Valentin Grozdev, Stoyan Georgiev, Irena Peytcheva, Albrecht von Quadt, Peter Marchev
15. Bulgarian contributions to IGCP projects in the 21-st century (2005–2009)
Daria Ivanova, Iskra Lakova, Valeri Sachanski, Iliana Boncheva, Tatyana Dimitrova, Radostina Atanassova
16. Spinel accessories in ultramafic and mafic rocks from Gega ophiolite mélange in Ograzhden Mountain, Southwestern Bulgaria
Petya Ivanova, Nikola Zidarov
17. The metasomatic rocks from Gurgulyatski Kamak area, Western Srednogie. Specific features and ore prospective
Radoslav Nàèov, Angel Kunov, Atanas Hikov, Nadezhda Velinova
18. Geosites “Big and Small Veil” and “Leaky Stone” in Provadia River Canyon
Dimitar Sinnyovsky, Dimka Sinnyovska
19. Finite strain determination in different lithological domains from the composition of the Sredogriv metamorphites (Northwestern Bulgaria)
Hristo Kiselinov
20. Coal (jet) beads from the Varna Chalcolithic necropolis (V mill. BC) in a prehistoric weight system
Ruslan I. Kostov, Irena Kostova, Olga Pelevina
21. New palaeoecological data on the Late Quaternary history of genus *Isoetes* (Lycopodiophyta) in Bulgaria
Maria Lazarova, Elissaveta Bozilova, Spassimir Tonkov, Dimiter Ivanov
22. Monzonites in the Stomanovo prospect: first finding of Paleogene intrusive rocks in the Bratsigovo-Dospat area
Peter Marchev, Danko Jelev
23. The preserved heritage of professor Naum Nikolov in the Mineralogy, petrology and mineral deposits museum of the Sofia University “St. Kliment Ohridski”
Elena Neykova, Anka Rusinova

24. Comparative characteristics of groundwater resources formation in the Low-Danube and Tersko-Kumski artesian basins
Tatiana Orehova, Igor Zektser, Olga Karimova, Aleksey Benderev
25. Stress field during the formation of the Elatsite Cu-porphry deposit
Nikolay Petrov
26. New palynological finds from Southeast Strandzha Mountain, Bulgaria
Lyudmila Petrunova, Tatiana Dimitrova, Ivan Dimitrov, Yordan Malyakov
27. SEM-EDX characterization of zeolitized coal fly ash from “Maritza 3” TPP
Annie Shoumkova, Valeria Stoyanova, Tsenka Tsacheva, Stela Atanasova
28. SEM investigation of morphology and chemical composition of neo-phases formed during Er:YAG laser irradiation of human teeth
Eugenia Tarassova, Galia Zhegova, Mihail Tarassov, Maya Rashkova
29. Comparative study of three methods for palaeoclimate reconstructions based on fossil plant macro remains
Boris Tsenov
30. Minor and trace element content of sulphides from the Madan polymetallic deposits, Central Rhodopes: a LA-ICP-MS study
Rossitsa Vassileva, Radostina Atanassova, Elitsa Stefanova, Peter Marchev, Irena Peytcheva, Kalin Kouzmanov
31. Zonal plagioclase from the Vitosha pluton as an indicator of magmatic interaction
Stela Atanasova-Vladimirova, Iskra Piroeva
32. A model of chemical composition variations of the rocks from the Balkan-Carpathian ophiolite segment
Oleg Vitov
33. Polymorphism and law of Groth
Alexander Vlahov
34. Characteristic and distribution of coal-bearing sediments in Lom Depression
Marlena Yaneva, Nadja Ognjanova-Rumenova, Stefan Shanov, Gabriel Nikolov, Nikolay Nikolov
35. First find of nephrite in tremolitite body from Ograzhden Mountain, Southwestern Bulgaria
Nikola Zidarov, Ruslan I. Kostov, Petar Zidarov
36. GPS’2009 campaign at the Bulgarian and Romanian tide gauges
Lyubka Pashova, Viorel Malciu
37. Polished stone tools from the Late Neolithic site Hadzhidimitrovo, Yambol district: rocks and specifics in raw material procurement
Iliya Hadzhipetkov
38. Lithotectonic subdivision of the metamorphic rocks in Rila-Rhodope region
Stoyan Sarov, Emilia Voinova, Maria Ovtcharova, Kalin Naydenov, Neven Georgiev, Dimo Dimov