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Varia

Book review of a recent Springer Edition

Papić, P. (Ed). 2016. *Mineral and thermal waters of Southeastern Europe*. Environmental Earth Sciences, Springer International Publishing Switzerland, 171 pp.

This book introduces a wide range of readers to the mineral and thermal waters in Southeastern Europe. Based on the collected information on the geological evolution of that region, the potential for the availability of thermal and mineral waters, their physical and chemical characteristics, as well as their usage, are reviewed. The book contains nine studies, the first of which presents the geology of Southeastern Europe and the rest represent national reports on the current state of thermal and mineral waters in the respective country. The materials have a volume of 171 pages and are written by 29 authors from nine countries.

The description of the geology of SE Europe has been made through summarised geological interpretation of information that has been adopted by most geologists. A simplified geological map is presented, which is based on previous studies, giving insight into the geological units of a vast Balkan territory. It includes all rocks that stratigraphically overlay the Vardar-Tethyan mega-suture and seal the contacts between geological units. As a result of the geological activity in the region, magmatism, both intrusive and extrusive, is widely spread, which indicates high heat flux underneath.

The book gives extensive information on the mineral and thermal waters of Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Macedonia, Montenegro, Romania, and Serbia. Geothermal and hydrogeochemical properties of the mineral and thermal waters of Croatia and their use are discussed. Thermal waters in Bulgaria are only slightly mineralised, suitable for drinking, and their direct application has an ancient tradition in the country. In Montenegro, mineral and thermal waters are found in three hydrogeologic zones: the Coastal, Central, and Inner Dinarides. This is a result of the specific geological makeup and complex tectonic relations. A description of the thermal waters of Serbia is presented, with detailed information about their temperature, dissolved minerals, pH, Eh, gas content, and hydrogeological conditions. Based on data gathered via more than 250 wells, an elaborate account on the main accumulations of mineral waters in Romania is made. Albania is characterised by complex structural-geologic and geomorphological conditions, resulting in the formation of various aquifers with respect to their hydraulic type, resources, hydrodynamics, and hydrochemical characteristics; four hydrochemical water types and four related provinces of thermal waters are distinguished. The use of geothermal energy in Macedonia comes down to only low-temperature waters; the potential of medium- and high-temperature waters has not yet been explored. Bosnia and Herzegovina is especially rich in mineral, thermal and thermomineral waters, with total discharge of 7,035 l/s. Lastly, the different uses of hot waters in the Balkan countries is reviewed, emphasising on their variable applications in balneology, recreation, bottling and industrial use, water supply, thermoenergetics, and extraction of mineral raw materials.

Mineral and Thermal Waters of Southeastern Europe is a valuable book because of the collected regional information and the opportunity to improve the knowledge and use of available hot water resources.

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