



Stable isotopic composition of bottled mineral waters from Romania

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Romania has a high potential of mineral waters resources, featuring one of the largest mineral resources at European and global level. In the last decade, due to increased in consumption of bottled water, numerous brands have appeared on the market, with equally numerous and variable sources of provenance. In this study we have analyzed the isotopic composition of bottled mineral waters from Romania in order to determine their source and authenticity. We have analysed 32 carbonated and 24 non-carbonated mineral waters from Romania. and the results were analysed in comparison with stable isotope data from precipitation and river waters. Generally, the isotopic values of the mineral waters follow those in precipitation; however, differences occur in former volcanic regions (due to deep circulation of meteoric waters and increased exchange with host rock and volcanic CO₂), as well as in mountainous regions, where high-altitude recharge occurs.