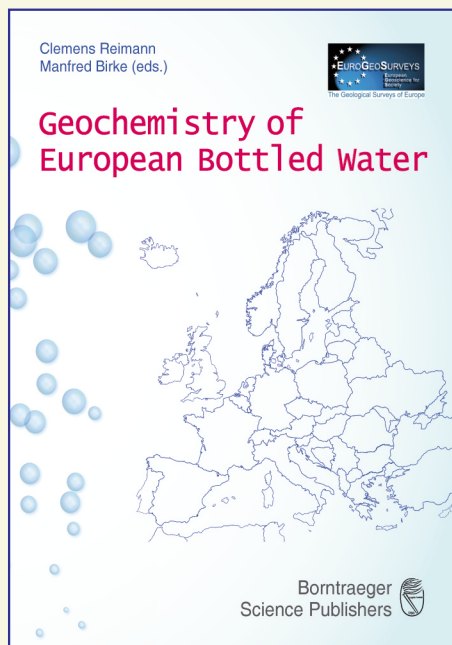


# Geochemistry of European Bottled Water



## Reimann & Birke (eds.) Geochemistry of European Bottled Waters

2010. XII , 268 p., 28 figs., 6 tab., 2 appendices.,  
67 element maps, CD-ROM, 27 × 21cm,  
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**Bottled water** (more than 1900 brands are currently registered in Europe) is rapidly developing into a major source of drinking water for a significant proportion of the population in many parts of the continent. The authors present the chemical composition of 1785 bottled water samples from 38 European countries (1247 different sources at 884 locations) purchased by a network of geochemists in supermarkets during 2008. Subsequent analysis in a single laboratory (c. 70 elements by ICP-MS, ICP-OES, IC and pH, alkalinity, etc.), has produced a harmonized data set, previously unavailable at this level of completeness, quality and spatial coverage.

**Bottled water can be considered as a proxy for groundwater composition.** The bottled water data set is thus used to provide a first impression of variability and the regional distribution of groundwater chemistry at a continental scale. The maps allow the reader to identify the influence of geology on water composition, as well as other factors (e.g. bottling effects, leaching from bottles). Furthermore, the

enormous natural variation in concentration (up to 7 orders of magnitude) of many of the analysed elements in groundwater is documented. The bottled water data are plotted against European surface water, tap water and Norwegian bedrock groundwater in cumulative probability diagrams that highlight the similarities and differences between these different water types.

**The volume also provides an overview of the legal framework, that any bottled water sold in the European Union must comply with.** It provides a comprehensive compilation of current drinking water action levels in European countries, limiting values of the European Drinking/Mineral/Natural Mineral Water directives (1998/83/EC, 2003/40/EC, 2009/54/EC) and legislation in effect in 26 individual European Countries, and for comparison those of the FAO and in effect in the US (EPA, maximum contaminant levels [MCA]).

**The complete data set** presented in this book, with full sample information and previously published European water chemistry data sets are found on the accompanying CD.



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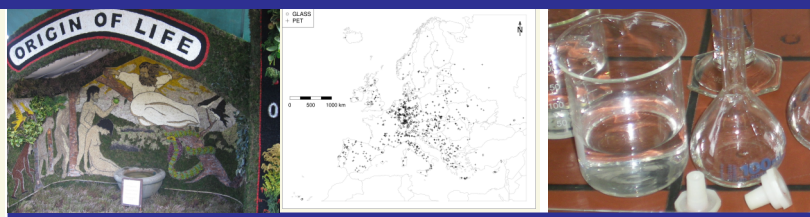
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- EGG European tap water dataset (.xls)
- FOREGS European surface water dataset (.xls)
- Norwegian bedrock water dataset (.xls)

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