

QUALIFICATION OF PORTUGUESE MINEROMEDICINAL WATERS FOR PELOOTHERAPY

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Portugal has a significant historical background in what concerns the use of geological resources for therapeutic purposes. Clays and mineral waters are abundant and empirically used in the form of hydrothermal muds, for the treatment of muscular, rheumatic and skin diseases. Nowadays, Portuguese spas are still requested for thermal treatments due to the peculiar physico-chemical characteristics of its mineral waters. In the last decade, various publications studied the influence of different types of mineral waters in treatments combining the therapeutic effects of clays and minero-medicinal waters (Sánchez et al., 2002; Veniale et al., 2004; Gámiz et al., 2009). In this study, several mineral waters were collected from springs/wells located at Portuguese spas or traditional healing baths commonly used for the treatment of skin and musculo-skeletal disorders. We aimed at their geochemical characterization in order to select a group of suitable minero-medicinal waters to be used in the formulation of peloids. The concentrations of major cations and trace elements were determined using an inductively coupled plasma-atomic emission spectrometry method (ICP-MS) at ACME Anal. ISO 9002 Accredited Lab - Canada. The geostandard WASTWATR3 was used by ACME to check the validity and reproducibility of the results. Data analysis was performed using Piper diagram and Principal Component Analysis (PCA). Different hydrochemical types were obtained for the studied waters, the results showing a large range of chemical characteristics and diverse water types.

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