

# **Preliminary results of $^{226}\text{Ra}$ , $^{228}\text{Ra}$ and $^{210}\text{Pb}$ concentration in mineral waters from Parque das Águas de Cambuquira and Marimbeiro (MG)**

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# OBJECTIVES

This study presents the preliminary results of the  $^{226}\text{Ra}$ ,  $^{228}\text{Ra}$  and  $^{210}\text{Pb}$  activity concentrations of the Parque das Águas de Cambuquira and Marimbeiro and the committed effective dose due to the consumption of these water.



Figure I – Parque das águas Cambuquira, MG - Brazil

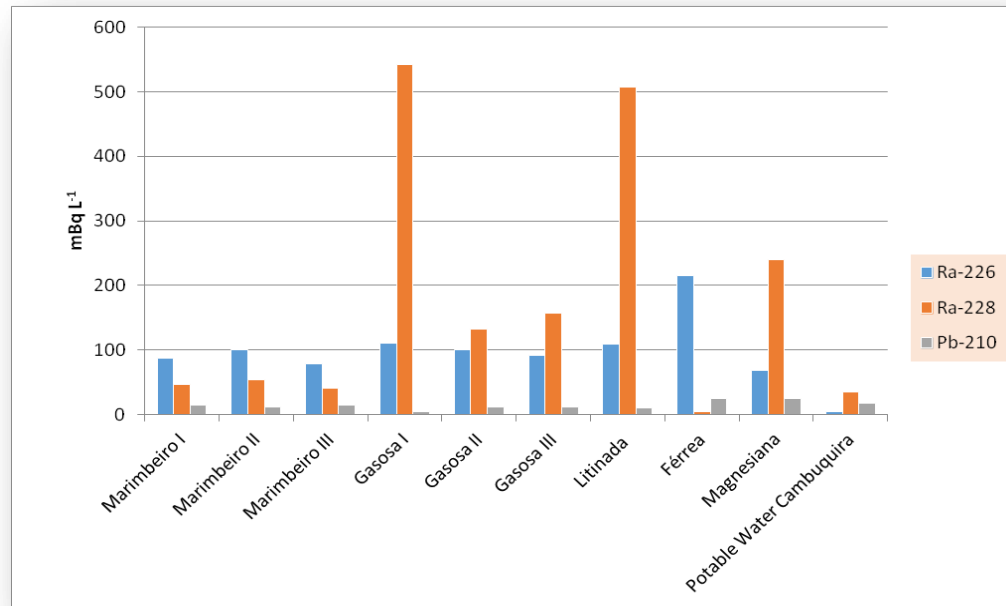
# METHODOLOGY

The radionuclides  $^{226}\text{Ra}$ ,  $^{228}\text{Ra}$  and  $^{210}\text{Pb}$  were determined using a sequential radiochemical procedure.



Figure II – Radiochemical Procedure

# RESULTS



**Figure III-**  $^{226}\text{Ra}$ ,  $^{228}\text{Ra}$  and  $^{210}\text{Pb}$  concentrations,  $\text{mBq L}^{-1}$  - mineral waters from Parque das Águas of Cambuquira and Marimbeiro

In the study It was possible to observe:

- Of the three studied elements only the radionuclide  $^{228}\text{Ra}$  presented values of committed effective dose above the recommended values.