



## **Hydrogeochemical characterization of thermal and mineral waters of Muğla (SW Turkey)**

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The aim of this study is preparation of the inventory of thermal and mineral waters of Muğla province. For that purpose, fifty three samples were collected from a total of nineteen sites with the purpose of characterizing the chemical and physical properties of Muğla thermal and mineral waters. Of these, nine of them are geothermal (well head temperature  $>20$  °C), and ten are mineral water sites. The geothermal waters are generally located near the sea coast, while mineral waters are generally located inland. Geothermal waters are generally Na-Cl type which is an indication of sea water mixing. Mineral waters are generally Ca-HCO<sub>3</sub> type. NO<sub>3</sub> concentrations are generally less than 10 ppm and boron concentrations have a maximum value of 6 ppm. According to the stable isotope results, the origin of the sampled waters in Muğla province is meteoric. Reservoir temperatures of geothermal fields are estimated between 30 and 130 °C by geothermometry calculations.