



Geochemical study of groundwater mineralization in Guanzhong Basin, Shaanxi province, NW China

Ma Zhi-yuan, Dou Hui-ping*, Li Ting, Hu Wei-wei, Yan Hua

*School of Environmental Science and Engineering, Chang'an University, Xi'an, Shaanxi 710054, China
Tel. 15829551240; email: douhuiping@163.com*

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ABSTRACT

The objective of this study is to determine the main geochemical processes that affect the formation and genesis of geothermal water in the Guanzhong Basin. Samples in different zone and different depth are taken and analyzed to reflect the variety of chemical characteristics of geothermal water in the area. Based on the chemical analysis, the main water chemical actions are the decarbonation and desulfurization function. Dissolution, Decarbonation reaction is happened widely in Guanzhong basin while desulfurization function is only found in deep stratum of Xi'an. Dissolution of calcite results in the Ca-HCO₃ type water of mountainfront recharge area.

Keywords: Guanzhong basin; Groundwater; Hydrochemical characteristics; Mineralization; Geochemical process; Dissolution

*Corresponding author.