

**Geochemistry of Kairouan plain:  
Tunisia**

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The aquifer of Kairouan, located in the central part of Tunisia, is the main water resource for drinking supply, agriculture and industrial use in the region. It is composed of a shallow and a deep units and its main feeding comes from natural recharge in wadiis. Because of the demographic, agricultural and industrial development in the region, the aquifer knows an increasing exploitation with more than 5000 wells and 400 drillings. The actual exploitation volume exceeds the aquifer capacity and thus can threaten the water quality there. The main risks are dealing with deep saline water upcoming and Sebkha water intrusion. Another risk can come from irrigation water recycling which can only be very saline because of the climate aridity in the region.

In this work, we present the main results of a geochemical study of Kairouan aquifer. Major elements were used to identify the water types and a statistical study was performed to determine the salinity origin as well as the inter connection between the surface water and the two aquifer layers.

The richness of the mineralization by different major elements has been explained by the probability of rocks alteration, meteoric contribution and salt migration in the atmosphere from Sebkhas that constitute the Kairouan groundwater outlet.

Sayadi R. (2006). Géochimie de la plaine de Kairouan. MSc in Ecole Nationale d'ingénieurs de Tunis-Tunisie, 200p.