

**HYDROGEOCHEMICAL PROCESSES ASSOCIATED WITH SALT WATER
INTRUSION IN COASTAL, CARSTIC AQUIFERS: THE GUIRA-QUIVICAN
CASE STUDY, SOUTHERN LA HABANA BASIN**

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ABSTRACT.

The hydrogeochemical processes which determine the chemical composition of water from different hydrogeological zones at the karstic aquifer of Güira-Quivicán (Havana Southern Basin) were identified by means of a systematic field and laboratory sampling program. Among them the main processes were: sulfide and organic matter oxidation at the unsaturated zone of the aquifer; sulfate anaerobic reduction, especially at the middle and deep level of the wells located near of the swamp; dissolution and precipitation of calcite and dolomite, direct and inverse ion exchange, as well as other processes connected with the fresh – sea water mixture, where significant modification processes of the chemical composition occurs, which are demonstrated comparing the data with the conservative mixture results.

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