Physicochemical characteristics of Algerian Sahara sand dunes used for Bechar wastewater pretreatment

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Description
This work aims at the characterization of dune sand (Beni abbes), which is found in considerable quantity in Algeria Sahara; In order to make, a chemical analysis of the porous environment studied summer so as to provide us with a qualitative and a quantitative information about the chemical composition of the sample, the results obtained show that the quartz (97%) is the most represented mineral, the oxides of aluminium, potassium, iron, chromium and manganese, identified by the chemical analysis, probably enter in the clayey phase, the granular analysis permitted us to determine some parameters as the uniformity coefficient (CU) and equivalent diameter, a comparison of the IR spectrum of the sand (washed and non washed) was achieve, observations to the Scanning Electron Microscopy (SEM) and the X-Ray analysis are achieved also. A part of this work is devoted to the follow-up of the absorbance of the filtrate at different lengths of waves. Erg sand of Beni abbes presents favorable features for its use as being bed filtering in pretreatment.