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TOPIC(s) : Waste valorization

Valorization of local natural clay for the removal of heavy metals from wastewater:
case of Cu (II) ion

AUTHORS

LOUTFI MOHAMED / UNIVERSITY IBN TOFAIL, LABORATOIRE DE L'INGÉNIERIE DES MATÉRIAUX ET ENVIRONNEMENT : MODALISATION ET APPLICATION, DÉPARTEMENT DE CHIMIE, FACULTÉ DES SCIENCES, UNIVERSITÉ IBN TOFAÏL, B.P. 133, KÉNITRA, MAROC., KENITRA

PURPOSE OF THE ABSTRACT

The objective of this work is the extraction of Cu (II) by adsorption of the model solution on a clay material of the local region (Ouzzane Sidi-Redouane), which has not been tested before in terms of adsorption of metal cations and valorize the clay of the region. This experimental study was conducted in order to determine the optimal adsorption conditions of the Cu (II) metal ion.

The results of this study show that the removal of Cu (II) ions by the clay used was more efficient and could be related to the speed of copper ion adsorption, by increasing the adsorbent masses, the pH, contact time and copper ion levels.

Based on the kinetic adsorption study and the Langmuir and Freundlich adsorption model equations, the linear forms of which show that the maximum adsorption capacity of copper ions is adequate with Langmuir isothermal models. and Freundlich.

Key words: recovery, Clay, Adsorption, Copper, Isothermal models.

FIGURES

FIGURE 1

FIGURE 2

KEYWORDS

BIBLIOGRAPHY