World Academy of Science, Engineering and Technology
International Journal of Civil and Architectural Engineering
Vol:10, No:07, 2016

Removal of Organics Pollutants from Wastewater by Activated Carbon Prepared from Dates Stones of Southern Algeria

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Abstract : The objective of this work is the preparation of an activated carbon from waste date palm from El Oued region, namely the date stones and its use in the treatment of wastewater in this region. The study of the characteristics of this coal has the following results: specific surface 125.86 m2 / g, pore volume 0.039 cm3 / g, pore diameter of 16.25 microns, surface micropores 92.28 m2 / g, the outer surface 33,57 m2 /g, methylene blue number of 13.6 mg / g, iodine number 735.2 mg /g, the functional groups are the number of 4.10-2 mol / g. The optimum conditions for pH, stirring speed, initial concentration, contact time were determined. For organic pollutants, the best conditions are: pH > 8 and pH < 5, a contact time of 5 minutes and an agitation rate of 200 - 300 rpm.

Keywords : date palm, activated carbon, wastewater, El-Oued
Conference Title : ICSAUD 2016 : International Conference on Sustainable Architecture and Urban Design
Conference Location : Zurich, Switzerland
Conference Dates : July 21-22, 2016