The Adsorption of Zinc Metal in Waste Water Using ZnCl2 Activated Pomegranate Peel

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Abstract : Activated carbon is an amorphous carbon chain which has extremely extended surface area. High surface area of activated carbon is due to the porous structure. Activated carbon, using a variety of materials such as coal and cellulosic materials; can be obtained by both physical and chemical methods. The prepared activated carbon can be used for decolorize, deodorize and also can be used for removal of organic and non-organic pollution. In this study, pomegranate peel was subjected to 800W microwave power for 1 to 4 minutes. Also fresh pomegranate peel was used for the reference material. Then ZnCl2 was used for the chemical activation purpose. After the activation process, activated pomegranate peels were used for the adsorption of Zn metal (40 ppm) in the waste water. As a result of the adsorption experiments, removal of heavy metals ranged from 89% to 85%.

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