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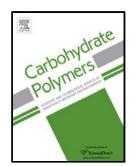
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### ACCEPTED MANUSCRIPT

# Application of chitosan in removal of molybdate ions from contaminated water and groundwater

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#### Highlights

Chitosan polymer is a good sorbent for Mo<sup>VI</sup> removal.

The maximum sorption capacity was found to be  $265 \pm 1 \text{ mg g}^{-1}$ .

Hydroxyl groups were responsible for Mo<sup>VI</sup> sorption.

The critical bed depth,  $Z_0$  was determined to be 0.77 cm.

Chitosan can be applied in removal of molybdate from real groundwater samples.

#### Abstract

Water pollution by heavy metals represents a serious problem around the world. Among various treatment techniques for water remediation, adsorption is an effective and versatile method due to the low cost, effectiveness and simplicity. Chitosan is a cationic polysaccharide with an excellent adsorption capacity of Download English Version:

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