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Title: Crustacean Derived Calcium Phosphate Systems: Application in Defluoridation of Drinking Water in East African Rift Valley

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## ACCEPTED MANUSCRIPT

#### **Crustacean Derived Calcium Phosphate Systems: Application in Defluoridation of Drinking** Water in East African Rift Valley

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#### **Graphical abstract**



#### Highlights

- 1. Biogenic source of calcium precursor is explored.
- 2. Crustacean derived calcium phosphate systems exhibit superior defluoridation efficiency
- 3. Fluoride removal mechanism follow pseudo 2<sup>nd</sup> order kinetics
- 4. Fluoride adsorption capacity from field water = 13.5mg/g at pH of 8.5 and initial fluoride of 70 mg/L.

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