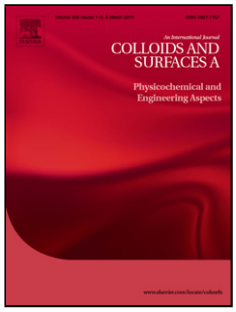

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Impact of surfactant and clay platelets on electrokinetic potential and size distribution in carbon nanotubes aqueous suspensions

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Highlights

- Stability and aggregation of carbon nanotubes (CNTs) in aqueous suspensions was studied
- Impact of cetyltrimetylammonium bromid (CTAB) and Laponite®(Lap) was discussed
- Different size distributions in dependence of CTAB and Lap concentrations were observed
- Addition of CTAB induced overcharging of CNTs at monolayer surface coverage
- Addition of Lap reduced ζ-potential of CNTs and resulted in bimodal size distributions

ABSTRACT

Stabilization of aqueous suspensions of carbon nanotubes (CNTs) is an acute task for a number of technological processes. The effects of cationic surfactant (cetyltrimethyl-