

## **Synthesis, Characterization and Swelling Behavior of Superabsorbent Hydrogel, H-Na-PCMSA-g-PAN**

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In recent years, increasing interest in polysaccharides based superabsorbent hydrogels has been developed mainly due to high hydrophilicity, biocompatibility, non-toxicity, and biodegradability of biopolymers. In this article we reviewed the literature survey on the studies in superabsorbents based on sodium alginate and its derivatives. This article further describes the synthesis, characterization and superabsorbing properties of the novel hydrogel synthesized from alkaline hydrolysis of polyacrylonitrile grafted sodium salt of partially carboxymethylated sodium alginate. The swelling measurements of the synthesized hydrogel have been carried out in various saline solutions and the hydrogel is found to exhibit salt resisting properties. The swelling kinetics of the hydrogel has also been studied and its values of the various swelling characteristics are reported.

**Keywords:** Sodium salt of partially carboxymethylated sodium alginate; acrylonitrile; superabsorbent hydrogel, Salt sensitivity; Swelling kinetics and Characterization

### **References**

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