

Properties of alginates such as gel formation, biocompatibility, and biodegradability made them special and opened the door to a vast range of fields. Different forms of alginate composites are helpful in the medical field to save and protect the life of patients, like microparticles, which are best for inflammatory bowel disease (IBD) patients. Dental practices have been done by making impressions with good results. This summarizes the advanced form of alginates in the biotechnological field by immobilizing or encapsulating process. The coating technique of alginate material provides information about the interaction of coating materials and alginates. Also in the pharmaceutical field, the capsule formation of alginates and observation of the effects of the coating technique on the cells and metabolic activities have been discussed. This chapter describes the activity of alginates in different fields. The modifications are shown in alginates, their derivatives, their composites, and physiochemical properties. The development of alginate nanoparticle for encapsulation of the drug EXE is for effective cancer treatment, which has been discussed. This was characterized by FTIR, XRD, and SEM techniques. This technique will serve as a good carrier for drugs.

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