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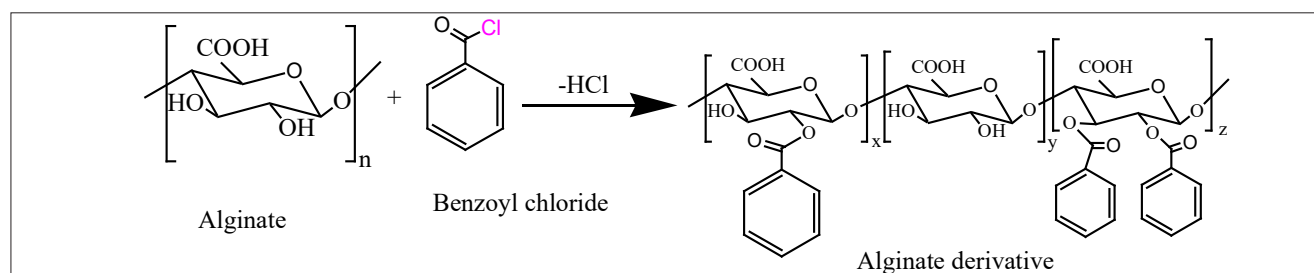
Preparation Characterization and Bio Evaluation of Novel Phenolic Alginate Derivative for Medical Applications

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In this study, Functional substitution of alginate with phenolic groups was prepared via coupling its hydroxyl groups with benzoyl chloride. The changes in the chemical and physical properties of the new derivatives were investigated by Fourier transform infrared (FT-IR), H-Nuclear magnetic resonance (H-NMR), thermal gravimetric analysis (TGA) and scanning electron microscope (SEM). ABTS and DPPH methods examined the antioxidant properties of new alginate bases. The biocidal activity against four different bacterial strains, the biocidal activity against four different bacterial strains, *S. haemolyticus* MST1 (Gram-positive bacteria), *P. aeruginosa* MST2 and *E. coli* MST5 (Gram-negative bacteria) demonstrates slightly improve inhibition activity compare to alginate.



Schematic Preparation of Benzoyl Alginate Derivative.

Biography:

Smaher M. Elbayomi completed her B.Sc. (with Distinction) in the Faculty of Science (Damietta) with Major in Chemistry (with Honors) in Mansoura University from September, 2006-May, 2009 and she completed her M.Sc. in the Faculty of Science with Major in Organic chemistry in Damietta University. Right now she is pursuing her PhD in the Faculty of Science and Technology of China, Faculty of Chemistry and Material Science Polymer Science and Engineering from September 2017 to till now. She worked as a demonstrator in the Department of Chemistry, Faculty of Science (Damietta) in Mansoura University Egypt, from December 26, 2009 – December 2013; as an Assistant Lecturer, in the Department of Chemistry, in the Faculty of Science in Damietta University Egypt, from December 2013 until September 2017; Lecture in Hefei Normal University China, from September 2018-2019 and as a Lecture in Huainan Normal University China, from September 2018-2019.