

- [54] POLYSACCHARIDE COMPOSITIONS, PREPARATION AND USES
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[57] ABSTRACT

Novel beta-1,3-glucan polysaccharide gels characterized by (a) coherent, uniform, non-particulate structure, and (b) substantially uniform pH throughout. The gels are prepared by dissolving a beta-1,3-glucan polysaccharide in an aqueous alkaline medium at a temperature of about 55° C. or below and while maintaining the solution at a temperature of at least 50° C., adjusting the pH to 10.5 or lower, followed by cooling below about 40° C. or heating above 50° C. The gels formed by cooling are reversible whereas the gels formed by heating are thermally irreversible. The gels are useful for supporting, separating, transforming or treating biological materials, as carriers for pharmaceuticals, as coatings for biological materials, in food products, and can be shaped to form disposable contact lenses.

40 Claims, No Drawings