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United States Patent [19] Henry

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[54] **COMPOSITIN AND METHOD FOR POST-SURGICAL ADHESION REDUCTION WITH THERMO-IRREVERSIBLE GELS OF POLYOXYALKYLENE POLYMERS AND IONIC POLYSACCHARIDES**

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[*] Notice: The portion of the term of this patent subsequent to Dec. 10, 2008 has been disclaimed.

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Related U.S. Application Data

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[51] Int. Cl.⁵ **A61K 9/107; A61K 47/34; A61K 47/36**

[52] U.S. Cl. **424/423; 424/78.37; 424/427; 424/431; 514/944**

[58] Field of Search **424/423, 78, 427, 437, 424/78.37**

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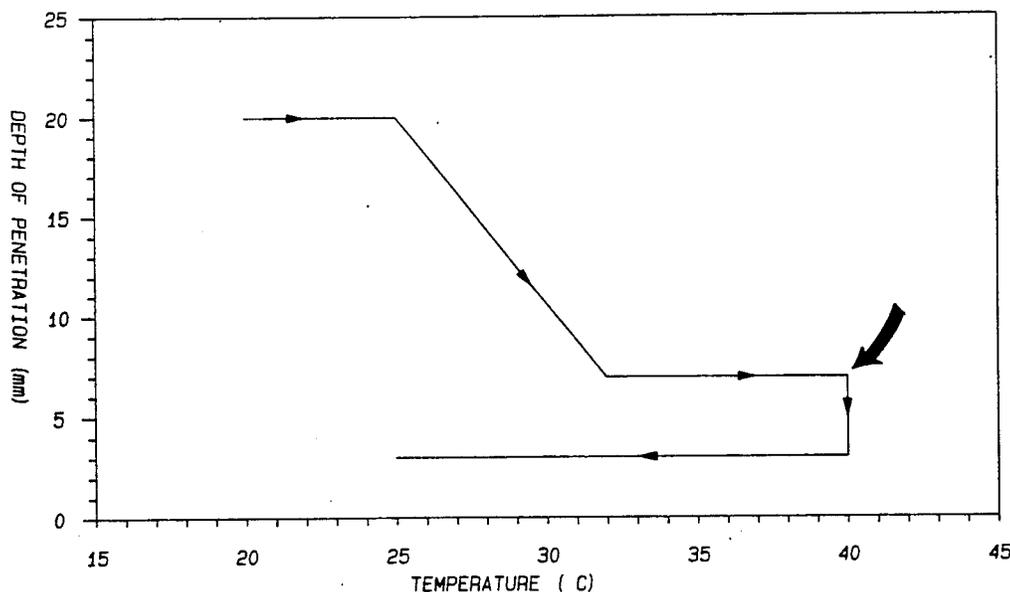
[57]

ABSTRACT

A process and compositons for reducing post-surgical adhesion formation/reformation in mammals following injury to organs situated in mammalian body spaces. Aqueous, thermally reversible gel compositions, preferably at mammalian body fluid pH, comprising a polyoxyalkylene polymer and an ionic polysaccharide are applied to injured areas of the organs situated in body cavities such as, the peritoneal, pelvic, or pleural cavity. The aqueous gels are rendered thermally irreversible upon contact with a counter-ion.

44 Claims, 1 Drawing Sheet

RESISTANCE TO PENETRATION OF POLOXAMER-ALGINATE GEL vs. TEMPERATURE



arrow denotes point of introduction of Calcium ions