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(54) Title: HEMOSTATIC COMPOSITIONS OF POLYACIDS AND POLYALKYLENE OXIDES AND METHODS FOR THEIR USE

(57) Abstract: The present invention relates to improved methods for making and using hemostatic, bioadhesive, bioresorbable, anti-adhesion compositions made of intermacromolecular complexes of carboxyl-containing polysaccharides, polyether, polyacids, polyalkylene oxides, and optionally including multivalent cations and/or polycations and/or hemostatic agents. The polymers can be associated with each other, and are then either dried into membranes or sponges, or are used as fluids, gels, or foams. Hemostatic, bioresorbable, bioadhesive, anti-adhesion compositions are useful in surgery to prevent bleeding and the formation and reformation of post-surgical adhesions. The compositions are designed to breakdown *in-vivo*, and thus be removed from the body. The hemostatic, anti-adhesion, bioadhesive, bioresorptive, antithrombogenic and/or physical properties of such compositions can be varied as needed by carefully adjusting the pH, solids content cation content of the polymer casting solutions, polyacid composition, the polyalkylene oxide composition, or by adding hemostatic agents. Hemostatic membranes, gels and/or foams can be used concurrently. Hemostatic, antiadhesion compositions may also be used to lubricate tissues and/or medical instruments, and/or deliver drugs to the surgical site and release them locally.

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