

[54] OCULAR IMPLANTS AND METHODS FOR THEIR MANUFACTURE

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[58] Field of Search ..... 427/2, 36; 623/6, 4, 623/5; 522/84, 85, 167

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[57] ABSTRACT

A method for modifying a PMMA surface by the gamma-irradiation induced polymerization thereon of N-vinylpyrrolidone, 2-hydroxyethylmethacrylate or a mixture thereof while maintaining the following conditions:

- (a) monomer concentration in the range of from about 0.5% to about 50%, by weight;
- (b) total gamma dose in the range of from about 0.01 to less than about 0.50 Mrad;
- (c) gamma dose rate in the range of from about 10 to about 2500 rads/minute; and
- (d) maintaining the molecular weight of the polymer in solution in the range of from about 250,000 to about 5,000,000.

The invention also relates to modifying polypropylene, polyvinylidene fluoride, polycarbonate and silicon surfaces according to a similar method as well as materials produced by the above methods which are useful as ocular implants.

14 Claims, 1 Drawing Sheet

