

[54] CONTROLLED DRUG DELIVERY HIGH MOLECULAR WEIGHT POLYANHYDRIDES

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[\*] Notice: The portion of the term of this patent subsequent to Jul. 12, 2005 has been disclaimed.

[21] Appl. No.: 61,294

[22] Filed: Jun. 12, 1987

Related U.S. Application Data

[63] Continuation-in-part of Ser. No. 613,001, May 21, 1984, and a continuation-in-part of Ser. No. 49,988, May 15, 1987, abandoned, which is a continuation-in-part of Ser. No. 892,809, Aug. 1, 1986, said Ser. No. 613,001, is a continuation of Ser. No. 477,710, Mar. 22, 1983, abandoned.

[51] Int. Cl.<sup>4</sup> ..... A61K 31/74

[52] U.S. Cl. .... 424/426; 424/78; 528/176

[58] Field of Search ..... 528/176; 424/426, 78

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[57] ABSTRACT

A bioerodible controlled drug release device is produced as a homogeneous polymeric matrix from a high molecular weight polyanhydride and a suitable biologically active substance. The high molecular weight polyanhydride is defined by a molecular weight greater than 20,000 and an intrinsic viscosity greater than 0.3 dl/g. The controlled drug release device is preferably formed by solvent casting with the biologically active substance and exhibits zero order release, improved correlation between the rate of release and polymer degradation, and an induction period between introduction to the eroding environment and the initial release of the biologically active substance. The controlled drug release devices are stable for extended periods of time, flexible and durable and not subject to fracture and disintegration.

18 Claims, 19 Drawing Sheets

