

United States Patent [19]

Iwasaki et al.

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[54] **HEMOGLOBIN COMBINED WITH A POLY(ALKYLENE OXIDE)**

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[30] **Foreign Application Priority Data**

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[52] U.S. Cl. **514/6; 424/101; 530/385**

[58] Field of Search **260/112.5 R, 112 B; 424/101; 530/385; 514/6**

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[57] **ABSTRACT**

There is disclosed hemoglobin modified in that a poly(alkylene oxide) is bonded thereto by a bond between a terminal group of said poly(alkylene oxide) and an amino group of said hemoglobin, said bond having the structure:



wherein Hb represents said hemoglobin and n represents a positive integer, preferably 1 to 7. The modified hemoglobin is an effective oxygen carrier and can therefore be used as a blood substitute.

11 Claims, 1 Drawing Figure