

[54] PHARMACEUTICALLY ACCEPTABLE
INTRAMOLECULARLY CROSS-LINKED,
STROMAL-FREE HEMOGLOBIN

[75] Inventors: Kent C. Morris, Mountain View;
Pieter Bensen, Los Altos, both of
Calif.; Myron B. Laver, Weston,
Mass.

[73] Assignee: Alza Corporation, Palo Alto, Calif.

[*] Notice: The portion of the term of this patent
subsequent to Jan. 4, 1994, has been
disclaimed.

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Related U.S. Application Data

[63] Continuation-in-part of Ser. No. 553,514, Feb. 2, 1975,
Pat. No. 4,001,401, and a continuation-in-part of Ser.
No. 554,051, Feb. 2, 1975, Pat. No. 4,001,200.

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C07G 7/00

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260/112 B; 260/112.5 R; 424/101

[58] Field of Search 424/101, 177; 195/1.7;
260/112.5 R, 112 B

[56] **References Cited**

U.S. PATENT DOCUMENTS

4,001,200 1/1977 Bensen et al. 260/112.5 R
4,001,401 1/1977 Bensen et al. 424/177

Primary Examiner—Sam Rosen

Attorney, Agent, or Firm—Paul L. Sabatine; Thomas E.
Ciotti; Edward L. Mandell

[57] **ABSTRACT**

This invention concerns pharmaceutically acceptable
intramolecularly cross-linked, stromal-free hemoglobin.
The intramolecularly cross-linked, stromal-free hemo-
globin is useful as a blood substitute for carrying oxygen
to tissues and vital organs, as a blood plasma expander,
and for supplying oxygen to oxygen-requiring environ-
ments.

22 Claims, 8 Drawing Figures