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[54] **HYDROGELS CONTAINING SILOXANE COMONOMERS**

[75] Inventors: **Joonsup Park; Joseph J. Falcetta,** both of Arlington, Tex.

[73] Assignee: **Alcon Laboratories,** Fort Worth, Tex.

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[58] **Field of Search** 523/107; 526/279, 264; 524/806

[56] **References Cited**

U.S. PATENT DOCUMENTS

3,220,960	11/1965	Wichterle et al.	260/2.5
4,095,877	6/1978	Stoy et al.	351/160
4,130,706	12/1978	Plamback, Jr.	526/245
4,139,513	2/1979	Tanaka et al.	260/29.6 TA
4,182,822	1/1980	Chang	526/264
4,246,389	1/1981	LeBoeuf	526/279
4,343,927	8/1982	Chang	526/262
4,433,111	2/1984	Tighe et al.	525/326.1
4,436,887	3/1984	Chromecek et al.	526/263
4,440,919	4/1984	Chromecek et al.	526/263
4,451,630	5/1984	Atkinson et al.	526/261
4,492,776	1/1985	Atkinson et al.	526/261
4,528,325	7/1985	Ofstead	525/60
4,550,139	10/1985	Arkles	523/107

Primary Examiner—Herbert J. Lilling

Attorney, Agent, or Firm—James A. Arno; Gregg C. Brown

[57] **ABSTRACT**

Hydrogel polymeric material, suitable for preparing optical devices such as contact lenses. The material is of improved oxygen permeability and mechanical properties in comparison with conventional hydrogels. It comprises, in addition to the hydrogel material, from about 5% to about 60% by weight of a siloxane comonomer containing both an aromatic ring and vinyl functionality. Its cooperation and combination of performance characteristics with traditional hydrogel forming monomers provides a very useful polymeric material for making lenses of the soft hydrogel type.

21 Claims, No Drawings