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(54) **HIGH REFRACTIVE INDEX AROMATIC-BASED PREPOLYMERS**

(75) Inventors: **Yu-Chin Lai**, Pittsford, NY (US); **Edmond T. Quinn**, Rochester, NY (US)

(73) Assignee: **Bausch & Lomb Incorporated**, Rochester, NY (US)

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(56) **References Cited**

U.S. PATENT DOCUMENTS

3,996,187 A		12/1976	Travnicek	260/37
3,996,189 A		12/1976	Travnicek	260/37
4,418,165 A		11/1983	Polmanteer et al.	523/210
4,537,943 A		8/1985	Talcott	528/15
4,647,282 A		3/1987	Fedorov et al.	623/4
4,737,558 A		4/1988	Falcetta et al.	526/279
4,868,251 A		9/1989	Reich et al.	525/479
4,929,051 A	*	5/1990	Rogler et al.	
5,444,106 A		8/1995	Zhou et al.	523/107
5,512,609 A		4/1996	Yang	523/107
5,623,029 A		4/1997	Yang	525/478
5,855,825 A	*	1/1999	Ito	
6,039,913 A		3/2000	Hirt et al.	264/331.11

FOREIGN PATENT DOCUMENTS

EP	0 335 312	4/1989
GB	1 604 519 A	9/1981

OTHER PUBLICATIONS

Patent Abstracts of Japan vol. 014, No. 487 (P–1121) Oct. 23, 1990 one (1) page.

Patent Abstracts of Japan vol. 013, No. 101 (C–574) Mar. 9, 1989 One (1) page.

* cited by examiner

Primary Examiner—Kuo-Liang Peng
(74) *Attorney, Agent, or Firm*—Rita D. Vacca

(57) **ABSTRACT**

Relatively high refractive index polymeric compositions and ophthalmic devices such as for example intraocular lenses and corneal inlays made therefrom are described herein. The preferred polymeric compositions are produced through the copolymerization of one or more aromatic-substituted polysiloxane prepolymers with one or more aromatic monomers, alkylated monomers or hydrophilic monomers.

7 Claims, No Drawings