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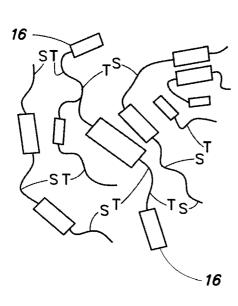
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(54) Title: ORDERED POLYMER SYSTEM AND INTRAOCULAR LENS



(57) Abstract: An intraocular lens with an ordered polymer system contained within a lens capsule or a membrane in the lens capsule. The ordered polymer system includes at least one negatively charged copolymer comprising hydrophilic groups, anionic groups and hydrophobic groups, and at least one positively charged copolymer comprising hydrophilic groups, cationic groups and hydrophobic groups. The at least one negatively charged copolymer and the at least one positively charged copolymer are associatively arranged through non-covalent interactions in the lens capsule or the membrane.

# INTERNATIONAL SEARCH REPORT

International application No PCT/US2007/085851

A. CLASSIFICATION OF SUBJECT M INV. A61L27/16	ATTER 08L33/24						
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B. FIELDS SEARCHED							
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C. DOCUMENTS CONSIDERED TO BE RELEVANT							
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X US 6 180 687	US 6 180 687 B1 (HAMMER MARK E [US] ET AL)						
	2001 (2001-01-30)		1-24				
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## INTERNATIONAL SEARCH REPORT

Information on patent family members

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PCT/US2007/085851

Patent document cited in search report		Publication date		Patent family member(s)	Publication . date
US 6180687	B1	30-01-2001	NONE		
EP 0968727	A	05-01-2000	AU AU BR CA CN WO NZ NZ TW US	751172 B2 1262599 A 9807142 A 2279213 A1 1246070 A 9927978 A1 336670 A 509286 A 381014 B 2002188352 A1	08-08-2002 16-06-1999 25-01-2000 10-06-1999 01-03-2000 10-06-1999 23-02-2001 23-02-2001 01-02-2000 12-12-2002