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CA 95070 (US). **FRANK, Curtis, W.** [US/US]; 10153
Camino Vista Drive, Cupertino, CA 95014 (US).

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(74) Agents: **JACOBS, Ron** et al.; 2nd Floor, 2345 Yale Street,
Palo Alto, CA 94306 (US).

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(71) Applicant (for all designated States except US): **THE
BOARD TRUSTEES OF THE LELAND STANFORD
JUNIOR UNIVERSITY** [US/US]; 1705 El Camino Real,
Palo Alto, CA 94305-1106 (US).

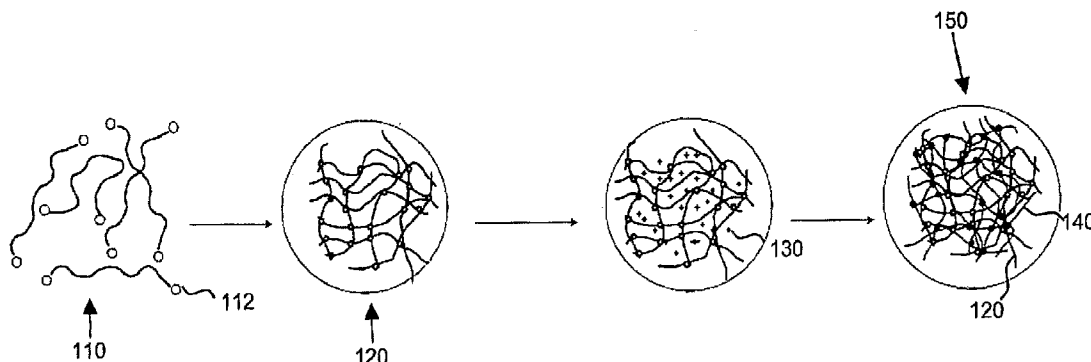
(72) Inventors; and

(75) Inventors/Applicants (for US only): **MYUNG, David**
[US/US]; Apartment 20, 395 Sierra Vista Avenue, Moun-
tain View, CA 94043 (US). **NOOLANDI, Jaan** [CA/US];
577 Hawthorne Avenue, Palo Alto, CA 94301 (US). **TA,
Christopher** [US/US]; 12307 Woodside Drive, Saratoga,

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(54) Title: INTERPENETRATING POLYMER NETWORK HYDROGEL CONTACT LENSES



(57) Abstract: The present invention, provides interpenetrating polymer network hydrogels that have high oxygen permeability, strength, water content, and resistance to protein adsorption. The hydrogels include two interpenetrating polymer networks. The first polymer network is based on a hydrophilic telechelic macromonomer. The second polymer network is based on a hydrophilic monomer. The hydrophilic monomer is polymerized and cross-linked to form the second polymer network in the presence of the first polymer network. The telechelic macromonomer preferably has a molecular weight of between about 575 Da and about 20,000 Da. Mixtures of molecular weights may also be used. In a preferred embodiment, the hydrophilic telechelic macromonomer is PEG-diacrylate or PEG-dimethacrylate and the hydrophilic monomer is an acrylic-based monomer. The material is designed to serve as a contact lens.

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B. FIELDS SEARCHED		
Minimum documentation searched (classification system followed by classification symbols) USPC: 351/160R		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched All remaining USPC classifications		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) WEST and Google Scholar: contact lens, glycol, hydrogel, methacrylic acid, hydrophilic, monomer, macromonomer, transparent, uv protection, equilibrium water content, polyethylene glycol diacrylate, second polymer network		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2004/0138382 A1 (DOUS) 15 July 2004 (15.07.2004), (para [0002], [0006], [0007], [0010], [0011], [0013], [0015], [0022], [0030]), [0057].	1-33
Y	US 5,770,669 A (ROBERTSON et al.) 23 June 1998 (23.06.1998), col. 2, ln 22-35; col. 2, ln 36-39; col. 3, ln 50-54; col. 6, ln 13-36; col. 7, ln 16-18.	1-33
Y	US 5,962,005 A (SAGA et al.) 5 October 1999 (05.10.1999), col. 11, ln 15-17 .	15, 16, 32, 33
Y	US 2006/0008506 A1 (CIPRIANO DE SOUSA et al.) 12 January 2006 (12.01.2006), para [0074].	17
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