

(19) World Intellectual Property Organization
International Bureau(43) International Publication Date
25 September 2003 (25.09.2003)

PCT

(10) International Publication Number
WO 03/077792 A2

- (51) International Patent Classification⁷: **A61F**
- (21) International Application Number: PCT/US03/06835
- (22) International Filing Date: 6 March 2003 (06.03.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
60/363,639 11 March 2002 (11.03.2002) US
10/367,253 14 February 2003 (14.02.2003) US
- (71) Applicant (for all designated States except US): **JOHNSON & JOHNSON VISION CARE, INC.** [US/US];
7500 Centurion Parkway, Suite 100, Jacksonville, FL
32256 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **KINDT-LARSEN,**

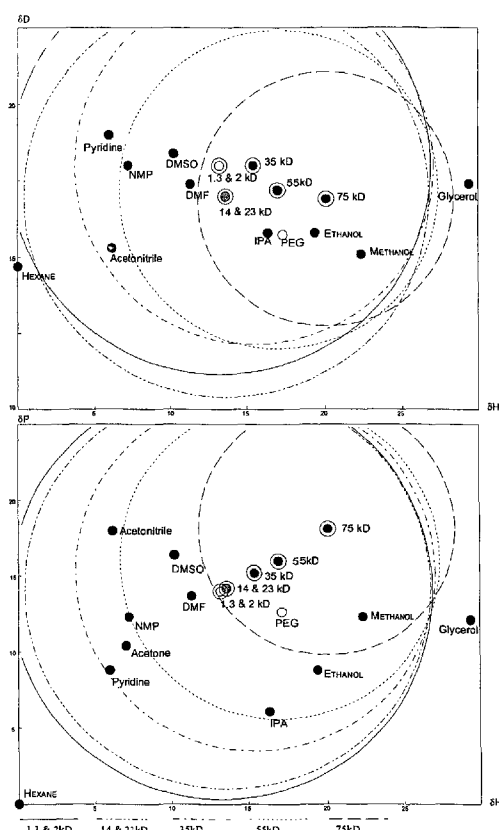
Ture [—/—]; Sollerodvej 40, DK-2480 Holte (DK).
WOLFF, Per [—/—]; Bakkevej 15A, DK-3460 Birkerød
(DK). **SORENSEN, Jens-Erik** [—/—]; Judithsvej 6,
DK-2900 Hellerup (DK). **STEENSTRUP, Frederik Re-**
sen [—/—]; Ehlersvej 2D, 3.tv, DK-2900 Hellerup (DK).
ROSSIGNOL, Hélène [—/—]; Frederiksberg Allé 7,
4.tv., DK-1621 Copenhagen V (DK). **MOLOCK, Frank**
F. [—/—]; 1543 Wildfern Drive, Orange Park, FL 32203
(US).

(74) Agents: **JOHNSON, Philip S.** et al.; Johnson & Johnson,
One Johnson & Johnson Plaza, New Brunswick, NJ 02933-
7003 (US).

(81) Designated States (national): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,
CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE,

[Continued on next page]

(54) Title: LOW POLYDISPERSITY POLY-HEMA COMPOSITIONS



(57) Abstract: The present invention relates to compositions comprising poly-HEMA having a peak molecular weight between about 25,000 and about 100,000, preferably between 25,000 and 80,000 and a polydispersity of less than about 2 to less than about 3.8 respectively and covalently bonded thereon, at least one cross-linkable functional group. The present invention further relates to low polydispersity poly-HEMA suitable for making the crosslinkable prepolymers, processes for functionalizing and purifying said poly-HEMA to form said crosslinkable prepolymers, viscous solutions made from said crosslinkable prepolymers, hydrogels made from said viscous solutions and articles made from said crosslinkable polymers, hydrogels and viscous solutions.

WO 03/077792 A2



SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ,
VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.