

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
23 February 2006 (23.02.2006)

PCT

(10) International Publication Number
WO 2006/018048 A1

(51) International Patent Classification⁷: **C12N 9/96**,
A61K 7/06, 7/48, 8/04, 8/34, 35/06, 38/43, 47/44

(21) International Application Number:
PCT/EP2005/000392

(22) International Filing Date: 17 January 2005 (17.01.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
10/922,790 19 August 2004 (19.08.2004) US

(71) Applicant (for all designated States except US): **LONZA AG** [CH/CH]; Münchensteinerstrasse 38, CH-4052 Basel (CH).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **GUTH, Jacob** [US/US]; 1245 Friendship Lane, Upper Black Eddy, Bucks, PA 18972 (US). **LENTNER, Vickie** [US/US]; 66 Park Avenue, Hunterdon, Washington, NJ 07882 (US).

(74) Common Representative: **LONZA AG**; Münchensteinerstrasse 38, CH-4052 Basel (CH).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, 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, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

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

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

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.

(54) Title: AQUEOUS ENZYME DELIVERY SYSTEM

(57) Abstract: Aqueous enzyme delivery systems as well as aqueous cosmetics and personal care products were provided which comprise at least one stabile enzyme and a polyglycerol containing at least 15 carbons. In addition, stabile non-aqueous enzyme delivery systems which are dispersions of at least one enzyme in an non-aqueous viscous liquid as well as a methods for the treatment of human skin in recreational water applications by means of enzymes are provided.

WO 2006/018048 A1