



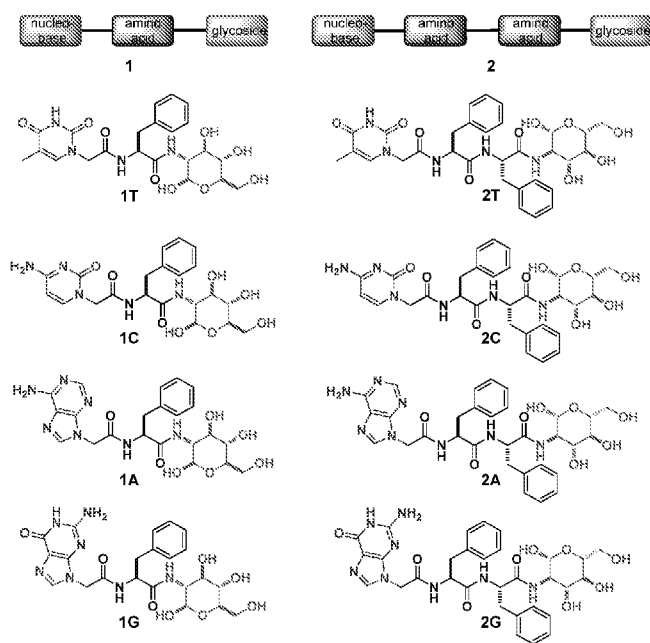
- (51) International Patent Classification:
C07H 17/02 (2006.01) A61K 31/706 (2006.01)
C07H 19/00 (2006.01) A61P 35/00 (2006.01)
A61K 38/14 (2006.01)
- (21) International Application Number:
PCT/US2012/039821
- (22) International Filing Date:
29 May 2012 (29.05.2012)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
61/491,544 31 May 2011 (31.05.2011) US
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2600 (US).
- (81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ,
CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO,
DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN,
HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR,
KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME,
MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ,
OM, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD,
SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR,
TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ,
UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ,
TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK,
EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV,
MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM,

[Continued on next page]

(54) Title: SUPRAMOLECULAR NANOFIBERS AND HYDROGELS BASED ON AMINO ACID-NUCLEOBASE-GLYCOSIDE CONJUGATES

Figure 1

(a)



(57) Abstract: Described herein are hydrogels that include a nucleobase, an amino acid, and a glycoside. The hydrogels have increased resistance to proteases and can self-assemble into supramolecular nanofibers or hydrogels. The supramolecular structures may be used to help grow cells or deliver a substance to a cell.



TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

Published:

— with international search report (Art. 21(3))

(88) Date of publication of the international search report:

28 February 2013

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2012/039821**A. CLASSIFICATION OF SUBJECT MATTER***C07H 17/02(2006.01)i, C07H 19/00(2006.01)i, A61K 38/14(2006.01)i, A61K 31/706(2006.01)i, A61P 35/00(2006.01)i*

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

C07H 17/02; C12M 1/00; A61K 31/52; A61K 8/30; C07K 3/22; C12N 5/08; C07K 3/18

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models
Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) & Keywords: hydrogelator, nucleobase, amino acid, glycoside, supramolecule

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
PX	LI, X. et al., Multifunctional, Biocompatible Supramolecular Hydrogelators Consist Only for Nucleobase, Amino Acid, and Glycoside. Journal of the American Chemical Society, 19 September 2011, Vol. 133, pages 17513-17518 See abstract; scheme 1	1-10,40
A	YANG, Z. et al., Supramolecular hydrogels based on biofunctional nanofibers of self-assembled small molecules. Journal of Materials Chemistry, 2007, Vol. 17, pages 2385-2393 See abstract; figure 5, 7	1-10,40
A	US 2008-0057005 A1 (LEHN, J.-M. et al.) 06 March 2008 See abstract; claims 1-13	1-10,40
A	US 05278284A A (LUSK, L. T. et al.) 11 January 1994 See abstract; claims 1-16	1-10,40
A	US 2002-0081726 A1 (RUSSELL, B. et al.) 27 June 2002 See abstract; claims 1, 2, 7	1-10,40

 Further documents are listed in the continuation of Box C. See patent family annex.

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Date of the actual completion of the international search

31 DECEMBER 2012 (31.12.2012)

Date of mailing of the international search report

03 JANUARY 2013 (03.01.2013)

Name and mailing address of the ISA/KR

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City, 302-701, Republic of Korea

Facsimile No. 82-42-472-7140

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Telephone No. 82-42-481-8161



INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2012/039821

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2008-0057005 A1	06.03.2008	CN 101133072 A DE 602006012636 D1 EP 1863827 A1 EP 1863827 B1 JP 2008-538744 A US 7981436 B2 WO 2006-100647 A1	27.02.2008 15.04.2010 12.12.2007 03.03.2010 06.11.2008 19.07.2011 28.09.2006
US 05278284A A	11.01.1994	None	
US 2002-0081726 A1	27.06.2002	AU 2001-94671 A1 US 6942873 B2 US 7695967 B1 WO 02-26939 A2	08.04.2002 13.09.2005 13.04.2010 04.04.2002