

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
25 November 2010 (25.11.2010)

(10) International Publication Number
WO 2010/135526 A3

(51) International Patent Classification:
C09K 15/04 (2006.01)

(21) International Application Number:
PCT/US2010/035567

(22) International Filing Date:
20 May 2010 (20.05.2010)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
61/179,944 20 May 2009 (20.05.2009) US

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(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, RO, RS, RU, 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, SD, SL, SZ, TZ, UG,
ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, 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, SE, SI, SK,
SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

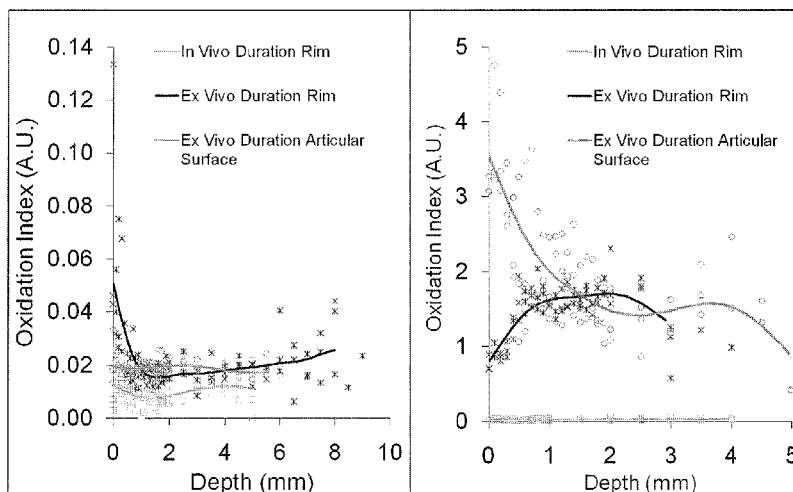
Published:

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

(88) Date of publication of the international search report:
3 March 2011

(54) Title: METHODS OF PREVENTING OXIDATION

Figure 2.



(A)

(B)

(57) Abstract: The present invention relates to methods for preventing oxidation of polymeric material. The invention discloses solutions for lipid- and/or cyclic deformation-initiated oxidation, methods of making oxidation and wear resistant polymeric materials, methods of preventing such oxidation and materials used therewith also are provided.

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A. CLASSIFICATION OF SUBJECT MATTER*C09K 15/04(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)

C09K; A61F; A61L; C08F; B29C

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)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2008-109515 A1 (THE GENERAL HOSPITAL CORPORATION DBA MASSACHUSETTS GENERAL HOSPITAL et al.) 12 September 2008 See claim 1; and all examples.	1, 18
X	US 2008-0319137 A1 (RUFNER ALICIA et al.) 25 December 2008 See claims 17 and 24; and all examples.	1, 18
A	US 7498365 B2 (MURATOGLU ORHUN K. et al.) 03 March 2009 See the whole document.	1, 18
A	US 2008-0119582 A1 (MURATOGLU ORHUN K. et al.) 22 May 2008 See the whole document.	1, 18
A	WO 2007-024689 A2 (THE GENERAL HOSPITAL CORPORATION DBA MASSACHUSETTS et al.) 01 March 2007 See the whole document.	1, 18
A	US 2007-0265369 A1 (The General Hospital DBA Massachusetts General Hospital) 15 November 2007 See the whole document.	1, 18

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

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

30 DECEMBER 2010 (30.12.2010)

Date of mailing of the international search report

30 DECEMBER 2010 (30.12.2010)

Name and mailing address of the ISA/KR

Korean Intellectual Property Office
Government Complex-Daejeon, 139 Seonsa-ro, Seo-gu, Daejeon 302-701, Republic of Korea

Facsimile No. 82-42-472-7140

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Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.: 36,37
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
Claims 36 and 37 are dependent on the multiple dependent claim 35 which does not comply with PCT Rule 6.4(a).

3. Claims Nos.: 19-35, 38-46
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

Claims 1,18 are directed to a method of preventing lipid-initiated oxidation of polymeric materials by providing an oxidation and wear resistant polymeric material, wherein the polymeric material is made by a process comprising a) to d) steps.
Claims 2,18 are directed to a method of preventing lipid-initiated oxidation of polymeric materials by providing an oxidation and wear resistant polymeric material, wherein the polymeric material is made by a process comprising a) to b) steps.
Claims 3-4, 18 are directed to a method of preventing lipid-initiated oxidation of polymeric materials by providing an oxidation and wear resistant polymeric material, wherein the polymeric material is made by a process comprising a) to b) steps.
(Continued on the Extra Sheet)

1. As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.

2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.: 1,18

- Remark on Protest**
- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- No protest accompanied the payment of additional search fees.

Claims 5,18 are directed to a method of preventing lipid-initiated oxidation of polymeric materials by providing an oxidation and wear resistant polymeric material, wherein the polymeric material is made by a process comprising a) to b) steps.

Claims 6,18 are directed to a method of preventing lipid-initiated oxidation of polymeric materials by providing an oxidation and wear resistant polymeric material, wherein the polymeric material is made by a process comprising a) to b) steps.

Claims 7,18 are directed to a method of preventing lipid-initiated oxidation of polymeric materials by providing an oxidation and wear resistant polymeric material, wherein the polymeric material is made by a process comprising a) to c) steps.

Claims 8,18 are directed to a method of preventing lipid-initiated oxidation of polymeric materials by providing an oxidation and wear resistant polymeric material, wherein the polymeric material is made by a process comprising a) to c) steps.

Claims 9,18 are directed to a method of preventing oxidation initiated by cyclic deformation of polymeric material by providing an oxidation and wear resistant polymeric material, wherein the polymeric material is made by a process comprising a) to d) steps.

Claims 10,18 are directed to a method of preventing oxidation initiated by cyclic deformation of polymeric material by providing an oxidation and wear resistant polymeric material, wherein the polymeric material is made by a process comprising a) to b) steps.

Claims 11,18 are directed to a method of preventing oxidation initiated by cyclic deformation of polymeric material by providing an oxidation and wear resistant polymeric material, wherein the polymeric material is made by a process comprising a) to b) steps.

Claims 12, 18 are directed to a method of preventing oxidation initiated by cyclic deformation of polymeric material by providing an oxidation and wear resistant polymeric material, wherein the polymeric material is made by a process comprising a) to c) steps.

Claims 13, 18 are directed to a method of preventing oxidation initiated by cyclic deformation of polymeric material by providing an oxidation and wear resistant polymeric material, wherein the polymeric material is made by a process comprising a) to b) steps.

Claims 14, 18 are directed to a method of preventing oxidation initiated by cyclic deformation of polymeric material by providing an oxidation and wear resistant polymeric material, wherein the polymeric material is made by a process comprising a) to c) steps.

Claims 15-16, 18 are directed to a method of preventing oxidation initiated by cyclic deformation of polymeric material by providing an oxidation and wear resistant polymeric material, wherein the polymeric material is made by a process comprising a) to b) steps.

Claims 17-18 are directed to a method of preventing oxidation initiated by cyclic deformation of polymeric material by providing an oxidation and wear resistant polymeric material, wherein the polymeric material is made by a process comprising a) to c) steps.

Since the above mentioned groups of claims do not share any of the technical features identified, a technically special relationship between the inventions does not exist.

Accordingly the claims do not relate to one invention or to a single inventive concept, a priori.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2010/035567

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Information on patent family members

International application No.

PCT/US2010/035567

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