

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
25 January 2007 (25.01.2007)

PCT

(10) International Publication Number
WO 2007/011530 A3

(51) International Patent Classification:

C08L 53/02 (2006.01) *C08L 23/00* (2006.01)
C08K 5/01 (2006.01)

(74) Agents: BELL, Catherine, L. et al.; EXXONMOBIL
CHEMICAL COMPANY, Law Technology, PO Box 2149,
Baytown, TX 77522-2149 (US).

(21) International Application Number:

PCT/US2006/026284

(22) International Filing Date: 7 July 2006 (07.07.2006)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

60/699,718 15 July 2005 (15.07.2005) US

(71) Applicant (for all designated States except US): EXXON-
MOBIL CHEMICAL PATENTS, INC. [US/US]; A Cor-
poration of the State of Delaware, 5200 Bayway Drive,
Baytown, TX 77520-5200 (US).

(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, HN, HR, HU, ID, IL, IN, IS, JP,
KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT,
LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA,
NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC,
SD, SE, SG, SK, SL, SM, SY, 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, 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, LV, 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).

(71) Applicant and

(72) Inventor (for all designated States except US): LI, James
[CN/US]; 21427 Walden Grove Lane, Katy, TX 77450
(US).

(72) Inventors; and

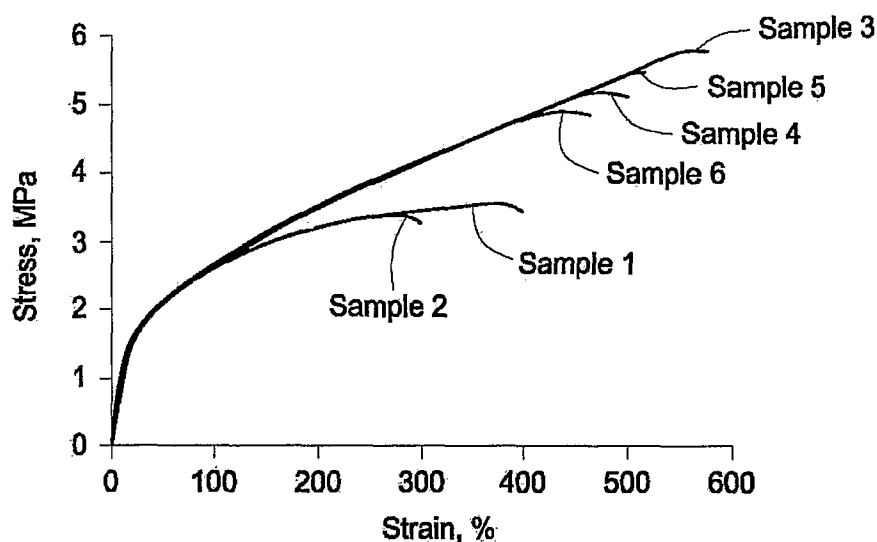
(75) Inventors/Applicants (for US only): TSE, Mun, Fu
[US/US]; 1706 Fair Oaks Drive, Seabrook, TX 77585
(US). MATHEW, Thottinal, A. [US/US]; 255 Castleway
Lane, Houston, TX 77015 (US).

Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a
patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the
earlier application (Rule 4.17(iii))

[Continued on next page]

(54) Title: ELASTOMERIC COMPOSITIONS



(57) Abstract: A composition comprising: (i) at least one low molecular weight polyolefm; (ii) at least one block copolymer obtainable by selectively hydrogenating a block copolymer having terminal polymeric blocks of a vinyl aromatic monomer and a mid-block prepared originally with an olefin and subsequently hydrogenated; (iii) at least one polypropylene; and (iv) at least one plastomer, wherein the plastomer is an ethylene based polymer having a density of 0.86 g/cc to about 0.910 g/cc or a propylene based polymer having a heat of fusion (Hf) of 70 J/g or less.

WO 2007/011530 A3



Published:

— with international search report

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

12 April 2007

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.

INTERNATIONAL SEARCH REPORT

International application No

PCT/US2006/026284

A. CLASSIFICATION OF SUBJECT MATTER

INV. C08L53/02 C08K5/01 C08L23/00

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)

C08L C08K

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

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

EPO-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 02/31044 A (DURABAN OY; KAARNAKARI, MATTI; ALHA, KARI) 18 April 2002 (2002-04-18) cited in the application page 2, line 5 - page 4, line 5; examples 1,2	1-52
A	US 6 027 557 A (HAYNER ROGER E [US]) 22 February 2000 (2000-02-22) column 10, line 50 - column 11, line 4	1-52
A	US 6 124 428 A (SCHMIEG JOEL EDWARD [US] ET AL) 26 September 2000 (2000-09-26) claims 1,10,11	1-52
	----- -/--	



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 document 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 another 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.
- *Z* document member of the same patent family

Date of the actual completion of the international search

11 January 2007

Date of mailing of the international search report

18/01/2007

Name and mailing address of the ISA/

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Van Golde, Lambertus

INTERNATIONAL SEARCH REPORT

International application No

PCT/US2006/026284

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2005/101210 A1 (BINDSCHEDLER PIERRE ETIENNE [FR] ET AL) 12 May 2005 (2005-05-12) paragraph [0005] -----	1-52
A	EP 0 618 261 A (SHELL INTERNATIONALE RESEARCH MAATSCHAPPIJ B.V) 5 October 1994 (1994-10-05) page 3, lines 37-43; claim 1 -----	1
A	US 4 038 237 A (SNYDER ET AL) 26 July 1977 (1977-07-26) column 3, lines 1-16; claims 1,5 -----	1
A	EP 1 241 224 A (RIKEN TECHNOS CORPORATION) 18 September 2002 (2002-09-18) the whole document -----	1
A	EP 0 733 677 A (SHELL INTERNATIONALE RESEARCH MAATSCHAPPIJ B.V; KRATON POLYMERS RESEAR) 25 September 1996 (1996-09-25) page 4, lines 22,23 -----	1
A	US 2003/060557 A1 (TASAKA MICHIHISA ET AL) 27 March 2003 (2003-03-27) the whole document -----	1

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2006/026284

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 0231044	A	18-04-2002	AU 1058902 A FI 20002884 A	22-04-2002 13-04-2002
US 6027557	A	22-02-2000	NONE	
US 6124428	A	26-09-2000	US 6297301 B1	02-10-2001
US 2005101210	A1	12-05-2005	CA 2441003 A1 EP 1398409 A1 FR 2844283 A1	11-03-2004 17-03-2004 12-03-2004
EP 0618261	A	05-10-1994	NONE	
US 4038237	A	26-07-1977	NONE	
EP 1241224	A	18-09-2002	NONE	
EP 0733677	A	25-09-1996	US 5726239 A	10-03-1998
US 2003060557	A1	27-03-2003	NONE	