

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
13 July 2006 (13.07.2006)

PCT

(10) International Publication Number  
**WO 2006/073662 A3**

(51) International Patent Classification:  
**B05D 3/02** (2006.01) *C08F 2/48* (2006.01)  
**B05D 5/00** (2006.01)

(21) International Application Number:  
PCT/US2005/044284

(22) International Filing Date:  
7 December 2005 (07.12.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
60/634,495 8 December 2004 (08.12.2004) US

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(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, KM, KN, KP, KR, KZ, 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, 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, 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).

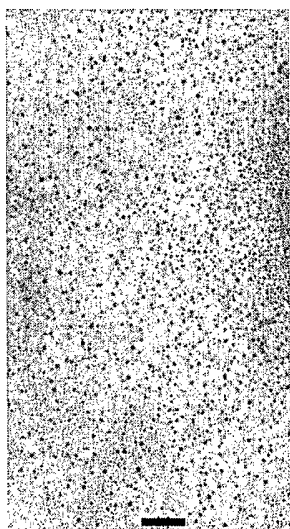
Published:

— with international search report

[Continued on next page]

(54) Title: POLYHEDRAL OLIGOMERIC SILSEQUIOXANES AND POLYHEDRAL OLIGOMERIC SILICATES BARRIER MATERIALS FOR PACKAGING

(57) Abstract: A method for barrier property enhancement using silicon containing agents and in situ formation of nanoscopic glass layers on polymer surfaces. Nanostructured chemicals such as polyhedral oligomeric silsesquioxane (POSS) are added to polymers, followed by in situ surface oxidation to form a glass layer.



50 nm

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— *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.*

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

14 September 2006

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US05/44284

## A. CLASSIFICATION OF SUBJECT MATTER

IPC: B05D 3/02( 2006.01), 5/00( 2006.01)  
C08F 2/48( 2006.01)

USPC: 427/287,494,508,510,279,376.2

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)  
U.S. : 427/287, 494, 508, 510, 279, 376.2

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 practicable, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y,P	US 2005/0238967 A1 (ROGERS et al) 27 October 2005 (27.10.05), paragraph 80.	1-27
Y	US 6,285,118 B1 (HATAI et al) 4 September 2001 (04.09.2001), column 33, lines 10-30.	1-27



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Date of the actual completion of the international search

21 June 2006 (21.06.2006)

Date of mailing of the international search report

14 JUL 2006

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