

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
25 March 2010 (25.03.2010)

PCT

(10) International Publication Number  
**WO 2010/033979 A3**

(51) International Patent Classification:

C07C 47/12 (2006.01) C07C 31/18 (2006.01)  
C07C 305/10 (2006.01) C07C 43/11 (2006.01)  
C11D 1/16 (2006.01) C11D 1/831 (2006.01)  
C07C 47/21 (2006.01) C11D 1/72 (2006.01)

(21) International Application Number:

PCT/US2009/057818

(22) International Filing Date:

22 September 2009 (22.09.2009)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

61/098,879 22 September 2008 (22.09.2008) 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, 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, 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:

6 May 2010

(54) Title: SPECIFIC POLYBRANCHED POLYALDEHYDES, POLYALCOHOLS, AND SURFACTANTS AND CONSUMER PRODUCTS BASED THEREON

(57) Abstract: Acyclic polyaldehydes and polyalcohols having 11, 16 or 21 carbon atoms and comprising at least two aldehyde or hydroxyl alcohol groups, at least three branches, and three or less carbon-carbon double bonds.



WO 2010/033979 A3

## INTERNATIONAL SEARCH REPORT

International application No  
PCT/US2009/057818

A. CLASSIFICATION OF SUBJECT MATTER  
 INV. C07C47/12 C07C305/10 C11D1/16 C07C47/21 C07C31/18  
 C07C43/11 C11D1/831 C11D1/72

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)  
C07C C11D

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, BEILSTEIN Data, CHEM ABS Data, WPI Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DIETMAR APPELHANS ET AL: "Syntheses with Aliphatic Dialdehydes, XLVI. Synthesis and Reactions of 2,2-Dialkyl-Substituted Malonaldehydes and Their Semi(Ethylene Acetals)" LIEBIGS ANNALEN: ORGANIC AND BIOORGANIC CHEMISTRY, VCH PUBLISHERS, US, vol. 11, 22 October 1997 (1997-10-22), pages 2385-2392, XP009129883 ISSN: 0947-3440 compounds 3d,4d	1,5, 7-12, 14-15
X	EP 0 542 217 A2 (UNION CARBIDE CHEM PLASTIC [US]) 19 May 1993 (1993-05-19)  claims 5,6	1,5, 7-12, 14-15

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

## \* Special categories of cited documents :

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Date of the actual completion of the international search

26 February 2010

Date of mailing of the international search report

25/03/2010

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## INTERNATIONAL SEARCH REPORT

International application No  
PCT/US2009/057818

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Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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X	US 4 454 145 A (CRISTOFORI MANLIO [IT] ET AL) 12 June 1984 (1984-06-12) examples 5,6	5-12, 14-15
X	MELISSA L GRACHAN ET AL: "Enantioselective Catalytic Carbonyl Ene Cyclization Reactions" ANGEWANDTE CHEMIE. INTERNATIONAL EDITION, VCH VERLAG, WEINHEIM, DE, vol. 47, no. 8, 8 February 2008 (2008-02-08), pages 1469-1472, XP007911912 ISSN: 0570-0833 [retrieved on 2008-01-10] compound 6a	1
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International application No  
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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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Information on patent family members

International application No PCT/US2009/057818
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