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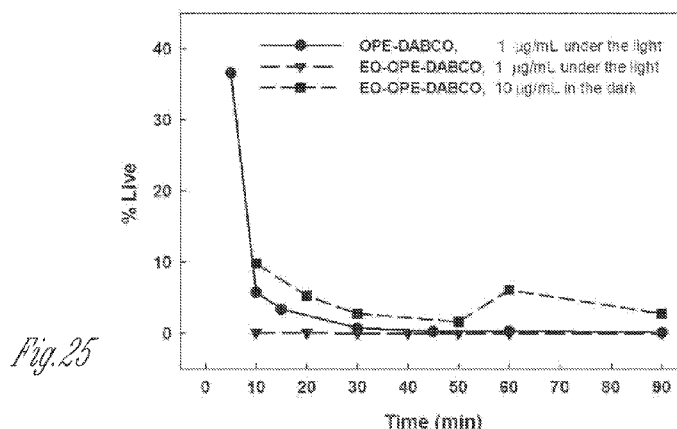
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[Continued on next page]

(54) Title: ANTIMICROBIAL MATERIALS AND METHODS



(57) Abstract: The invention provides methods and materials for decontamination of surfaces and fabrics, such as non-woven fabrics, that are contaminated with infestations of microorganisms such as bacteria. Biocidal oligomers having conjugated oligo-(aryl/heteroaryl ethynyl) structures and comprising at least one cationic group can be used to decontaminate infested surfaces in the presence of oxygen and, optionally, illumination. Fibers incorporating biocidal oligomers having conjugated oligo-(aryl/heteroaryl ethynyl) structures and comprising at least one cationic group, wherein the oligomer is physically associated with or covalently bonded to, or both, the fiber-forming polymer can be used to form non-woven mats. Biocidal non-woven mats prepared by methods of the invention, incorporating the biocidal oligomers, can be used to suppress bacterial growth in wound and surgical dressings and personal hygiene products.



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

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A. CLASSIFICATION OF SUBJECT MATTER

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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)

A01N 25/34; C07C 69/76; C07K 17/08; C07C 211/63; C12Q 1/68; C07C 279/00; B32B 005/02; C07C 205/00

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: bacteria biocidal, film, oligomer, ring system

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 2009-158606 A9 (STC.UNM) 21 October 2010 See abstract; paragraphs [0077]-[0093]; whole claims.	1-55
A	WO 2008-143731 A2 (UNIVERSITY OF FLORIDA RESEARCH FOUNDATION, INC.) 27 November 2008 See abstract; pages 2-4, 9-10; figure 1.	1-55
A	US 2005-0148254 A1 (LU, LIANGDE et al.) 07 July 2005 See abstract; paragraphs [0007]-[0025], [0055]-[0078].	1-55
A	US 05449809 A (WINGERT, HORST et al.) 12 September 1995 See abstract; columns 1-10.	1-55



Further documents are listed in the continuation of Box C.



See patent family annex.

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"&" document member of the same patent family

Date of the actual completion of the international search

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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PCT/US2012/049613

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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