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(54) **Title:** SUBSTRATE-INDEPENDENT LAYER-BY-LAYER ASSEMBLY USING CATECHOL-FUNCTIONALIZED POLYMERS

(57) **Abstract:** The present invention provides a simple, non-destructive and versatile method that enables layer-by-layer (LbL) assembly to be performed on virtually any substrate. A novel catechol-functionalized polymer which adsorbs to virtually all surfaces and can serve as a platform for LbL assembly in a surface-independent fashion is also provided.

INTERNATIONAL SEARCH REPORT

International application No
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A. CLASSIFICATION OF SUBJECT MATTER
INV. C08G83/00 C08G85/00 B05D7/00

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)
C08G. B05D

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, 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	WO 2007/127225 A2 (PURDUE RESEARCH FOUNDATION [US]; WILKER JONATHAN JAMES [US]; WESTWOOD) 8 November 2007 (2007-11-08) claims 1,19 page 7, paragraph 35 - paragraph 36 page 9, paragraph 44	1-3
X	WO 2005/056708 A2 (SPHERICS INC [US]; SCHESTOPOL MARCUS A [US]; JACOB JULES S [US]; DONNE) 23 June 2005 (2005-06-23) claims 1-6	1-3
X	US 2005/201974 A1 (SCHESTOPOL MARCUS [US] ET AL) 15 September 2005 (2005-09-15) claims 1,2,5,6,8,9 page 2, paragraph 30	1-3
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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

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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.
X	CN 1 557 845 A (GUANGXI UNIVERSITY FOR NATIONA [CN]) 29 December 2004 (2004-12-29) abstract -----	1-2

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No PCT/US2008/082973

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2007127225	A2	08-11-2007	NONE
WO 2005056708	A2	23-06-2005	AU 2004296404 A1 23-06-2005 CA 2549195 A1 23-06-2005 EP 1697481 A2 06-09-2006 JP 2007517776 T 05-07-2007
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