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(54) Title: ADHERENT POLYMERIC COMPOSITIONS

(57) Abstract: Described herein are adhesive polymeric compositions and methods for using the compositions. The composition are adherent to the applied surface. The compositions, in certain embodiments, are biodegradable and biocompatible, and can be designed with selected properties of compliancy and elasticity for different surgical and therapeutic applications. The adherent polymeric compositions comprise a polymerized macromer network and an additive mixed or entangled in the polymerized macromer. The additive is bonded to a surface by at least one covalent bond or by secondary interactions and is not covalently bonded to the polymerized macromer network. Alternatively, the additive is bonded to the surface by at least one covalent bond and is also bonded to the macromer network. The disclosed compositions can be used as an improved barrier, coating or drug delivery system that due to the additive is highly adherent to an applied surface. The compositions of the present invention are typically non-toxic, water miscible and have adaptable characteristics depending on the macromers and additives used. For example, specific macromers can be used for targeted bioresorption rate and/or degradation rate of the applied composition.

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## INTERNATIONAL SEARCH REPORT

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**A. CLASSIFICATION OF SUBJECT MATTER**

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**B. FIELDS SEARCHED**

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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, COMPENDEX, WPI Data, PAJ, EMBASE, CHEM ABS Data, BIOSIS, INSPEC

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 475 508 B1 (SCHWARTZ DANIEL M ET AL) 5 November 2002 (2002-11-05) column 5, line 35 - line 41 column 7, line 24 - line 67 claims	1-53
X	US 2003/223957 A1 (SCHWARTZ DANIEL M ET AL) 4 December 2003 (2003-12-04) paragraph '0026! paragraph '0076! paragraphs '0091!, '0092! paragraphs '0097! - '0110! paragraph '0117! paragraphs '0155! - '0170! ----- -/--	1-53

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

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X	WO 98/12243 A (FOCAL, INC; JARRETT, PETER, K; SAWHNEY, AMARPREET; CORY, ARTHUR, J; R) 26 March 1998 (1998-03-26) page 2, line 20 - line 26 page 9, line 31 - page 10, line 4 page 19, line 22 - page 21, line 25 page 24, line 7 - page 26, line 21 page 30, line 2 - page 31, line 11 page 45, line 31 - page 46, line 14 claims 25-69	1-53
X	US 2003/083389 A1 (KAO WEIYUN JOHN ET AL) 1 May 2003 (2003-05-01)  paragraphs '0012!, '0013! paragraphs '0025!, '0026! paragraph '0041! paragraph '0094! paragraphs '0154! - '0158! figure 6 example 4 claims	1-26, 28-36, 40-52
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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

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