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[Continued on next page]

(54) Title: CUSTOMIZABLE THERAPEUTIC ARTICLE FOR APPLYING HEAT TO THE BODY

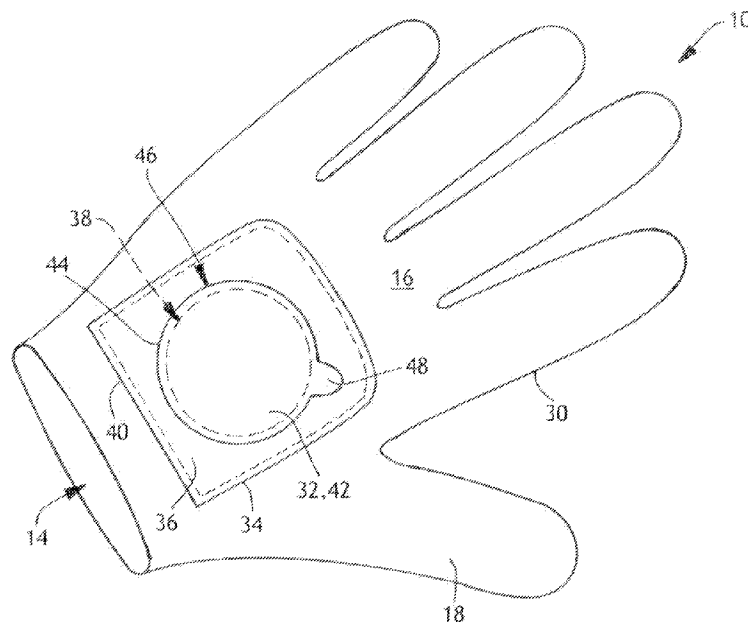


FIG. 8

(57) Abstract: A therapeutic delivery system that includes an appliance for selectively holding at least one therapeutic article in contact with at least a portion of a user's body. The therapeutic article may contain an exothermic compound that releases heat after selective activation by the user. The therapeutic article may be selectively located on the appliance by the user. The rate at which the exothermic composition reacts with a catalyst may be selectively controlled by the user. The appliance may be a garment that covers or encloses a portion of the user's body.



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A. CLASSIFICATION OF SUBJECT MATTER*A61F 7/02(2006.01)i, A61F 7/03(2006.01)i*

According to International Patent Classification (IPC) or to both national classification and IPC

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 practicable, search terms used)

eKOMPASS(KIPO internal) & Keywords: heating pack, exothermic composition, disposable and therapeutic agent.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	KR 10-2008-0031288 A (KOBAYASHI PHARMACEUTICAL CO., LTD.) 08 April 2008 See abstract; paragraphs [52], [53], [90]-[92], [116]-[152]; Figs. 1 and 13.	1-17
Y	US 2008-0116096 A1 (JOHNSON KROY D. et al.) 22 May 2008 See abstract; paragraphs [8]-[17]; claims 1-10; Fig. 2A.	1-17
Y A	JP 2000-288008 A (NITTO DENKO CORP.) 17 October 2000 See abstract; paragraphs [6]-[8]; Fig. 1.	7,8 1-6,9-17
Y A	JP 10-108875 A (NAGAO TAKAAKI et al.) 28 April 1998 See abstract; paragraphs [13]-[17]; claims 1-10; Figs. 2, 3.	11-14, 17 1-10, 15, 18
Y	JP 2003-093430 A (YANO KAZUSATO) 02 April 2003 See abstract; paragraphs [3]-[5]; claims 1, 2; Fig. 3.	1-17
Y	US 2003-0093017 A1 (ANNETTE M. LOUD) 15 May 2003 See abstract; paragraphs [12], [13], [16]; claims 1-10; Fig. 3.	1-17
A	JP 2002-345876 A (OOSHIN SEIYAKU KK) 03 December 2002 See the whole document	1-17

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

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
KR 10-2008-0031288 A	08.04.2008	JP 03-114403 U WO 2007-004309 A1	24.08.2005 11.01.2007
US 2008-0116096 A1	22.05.2008	EP 2081465 A2 KR 10-2009-0079958 A WO 2008-059388 A2	29.07.2009 22.07.2009 22.05.2008
JP 2000-288008 A	17.10.2000	None	
JP 10-108875 A	28.04.1998	None	
JP 2003-093430 A	02.04.2003	None	
US 2003-0093017 A1	15.05.2003	None	
JP 2002-345876 A	03.12.2002	None	