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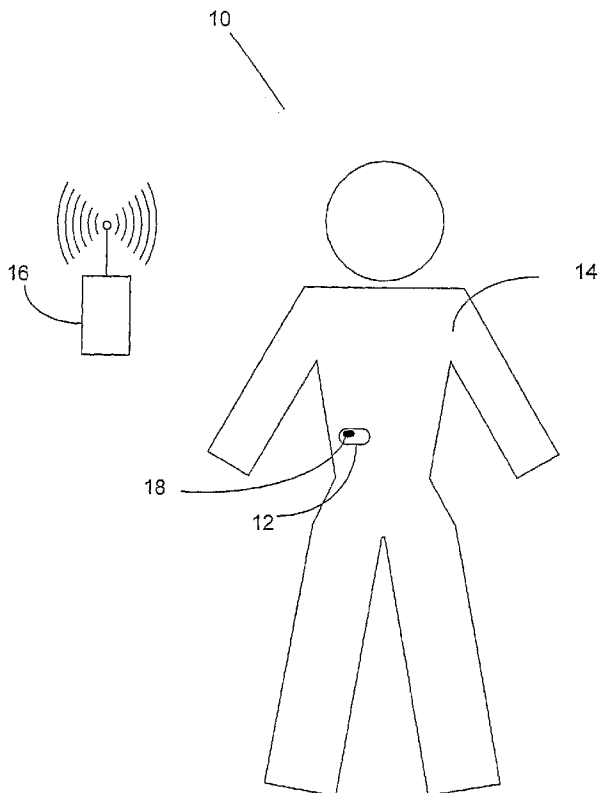
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<p>(51) International Patent Classification: <i>A61K 9/22</i> (2006.01) <i>A61M 37/00</i> (2006.01) <i>A61F 2/00</i> (2006.01)</p> <p>(21) International Application Number: PCT/US2006/043533</p> <p>(22) International Filing Date: 9 November 2006 (09.11.2006)</p> <p>(25) Filing Language: English</p> <p>(26) Publication Language: English</p> <p>(30) Priority Data:</p> <table border="0"> <tr><td>11/271,145</td><td>9 November 2005 (09.11.2005)</td><td>US</td></tr> <tr><td>11/271,146</td><td>9 November 2005 (09.11.2005)</td><td>US</td></tr> <tr><td>11/270,799</td><td>9 November 2005 (09.11.2005)</td><td>US</td></tr> <tr><td>11/272,455</td><td>9 November 2005 (09.11.2005)</td><td>US</td></tr> <tr><td>11/272,572</td><td>9 November 2005 (09.11.2005)</td><td>US</td></tr> <tr><td>11/272,573</td><td>9 November 2005 (09.11.2005)</td><td>US</td></tr> <tr><td>11/272,524</td><td>9 November 2005 (09.11.2005)</td><td>US</td></tr> </table>	11/271,145	9 November 2005 (09.11.2005)	US	11/271,146	9 November 2005 (09.11.2005)	US	11/270,799	9 November 2005 (09.11.2005)	US	11/272,455	9 November 2005 (09.11.2005)	US	11/272,572	9 November 2005 (09.11.2005)	US	11/272,573	9 November 2005 (09.11.2005)	US	11/272,524	9 November 2005 (09.11.2005)	US	<table border="0"> <tr><td>11/302,449</td><td>13 December 2005 (13.12.2005)</td><td>US</td></tr> <tr><td>11/302,321</td><td>13 December 2005 (13.12.2005)</td><td>US</td></tr> <tr><td>11/302,407</td><td>13 December 2005 (13.12.2005)</td><td>US</td></tr> <tr><td>11/302,450</td><td>13 December 2005 (13.12.2005)</td><td>US</td></tr> <tr><td>11/335,785</td><td>18 January 2006 (18.01.2006)</td><td>US</td></tr> <tr><td>11/335,786</td><td>18 January 2006 (18.01.2006)</td><td>US</td></tr> <tr><td>11/335,788</td><td>18 January 2006 (18.01.2006)</td><td>US</td></tr> <tr><td>11/335,911</td><td>18 January 2006 (18.01.2006)</td><td>US</td></tr> <tr><td>11/372,226</td><td>9 March 2006 (09.03.2006)</td><td>US</td></tr> <tr><td>11/372,492</td><td>9 March 2006 (09.03.2006)</td><td>US</td></tr> </table> <p>(71) Applicant (for all designated States except US): SEARETE LLC [—/US]; 1756 - 114th Ave. SE, Suite 110, Bellevue, WA 98004 (US).</p> <p>(72) Inventors; and</p> <p>(75) Inventors/Applicants (for US only): HOOD, Leroy, E. [US/US]; 6411 N.E. Windermere Road, Seattle, WA 98105 (US). ISHIKAWA, Muriel, Y. [US/US]; 1185 Hillcrest Avenue, Livermore, CA 94550 (US). JUNG, Edward, K.Y. [US/US]; 13420 NE 36th Street, Bellevue, WA 98005-1403 (US). LANGER, Robert [US/US]; 98</p>	11/302,449	13 December 2005 (13.12.2005)	US	11/302,321	13 December 2005 (13.12.2005)	US	11/302,407	13 December 2005 (13.12.2005)	US	11/302,450	13 December 2005 (13.12.2005)	US	11/335,785	18 January 2006 (18.01.2006)	US	11/335,786	18 January 2006 (18.01.2006)	US	11/335,788	18 January 2006 (18.01.2006)	US	11/335,911	18 January 2006 (18.01.2006)	US	11/372,226	9 March 2006 (09.03.2006)	US	11/372,492	9 March 2006 (09.03.2006)	US
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(54) **Title:** ACOUSTICALLY CONTROLLED REACTION DEVICE



(57) **Abstract:** Embodiments of a system including a remotely controlled reaction device and associated controller are described. Methods of use and control of the device are also disclosed. According to various embodiments, a reaction device is placed in an environment in order to perform a chemical reaction in an environment. Exemplary environments include a body of an organism, a body of water, or an enclosed volume of a fluid. In selected embodiments, an acoustic control signal may be used.

FIG. 1

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(81) **Designated States** (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, 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, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS,

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A. CLASSIFICATION OF SUBJECT MATTER
 IPC: **A61K 9/22(2006.01);A61F 2/00(2006.01);A61M 37/00(2006.01)**

USPC: 604/892.1,890.1,131;424/423
 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)
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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)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6,454,759 B2 (Krulevitch et. al.) 24 Sept. 2002 (24.9.2002) Abstract, column 1, lines 40-65 and columns 3-5	1-68
X	US 2004/0106914 A1 (Coppeta et al) 3 June 2004 (3.6.2004)	1-68

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Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (571) 273-3201	Authorized officer <i>Kevin C. Simmons</i> Telephone No. (571) 272-2975