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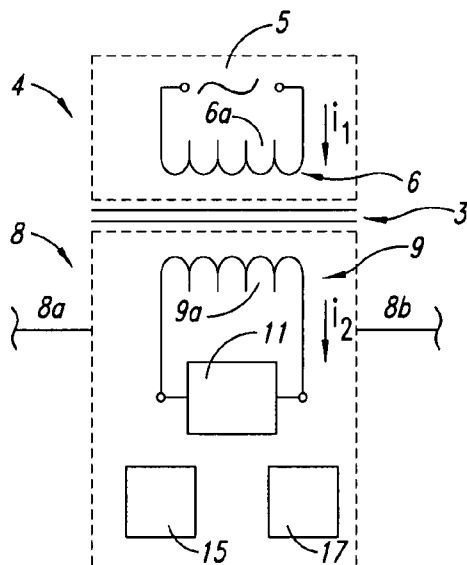
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- (71) Applicant (for all designated States except US): TTI ELLEBEAU, INC. [JP/JP]; Shinkan Building, 4-8-8 Higashi Shinagawa, Shinagawa-ku, Tokyo 140-0002 (JP).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): CARTER, Darrick [US/US]; 836 Northwest 64th, Seattle, WA 98107 (US).
- (74) Agents: ABRAMONTE, Frank et al.; Seed Intellectual Property Law Group PLLC, Suite 5400, 701 Fifth Avenue, Seattle, WA 98104-7064 (US).

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[Continued on next page]

(54) Title: TRANSDERMAL DRUG DELIVERY SYSTEMS, DEVICES, AND METHODS USING INDUCTIVE POWER SUPPLIES



(57) Abstract: An iontophoresis device for providing transdermal delivery of one or more therapeutic active agents to a biological interface having an active electrode assembly, a counter electrode assembly, and an inductor electrically coupled to the active and the counter electrode assemblies. The inductor is operable to provide a voltage across the active and the counter electrode elements in response to an applied varying electromagnetic field.

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B. FIELDS SEARCHED		
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C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	EP 0 931 564 A (ALZA CORP [US]) 28 July 1999 (1999-07-28) paragraphs [0040], [0046]; figures	1-21
X	US 2004/176803 A1 (WHELAN ANDREW J [US] ET AL) 9 September 2004 (2004-09-09) paragraphs [0031], [0032], [0035]; claims 18,19,21; figures	8-15
Y		1-7, 16-21
X	WO 2005/120631 A (EDMAN CARL FREDERICK [US]; DRINAN DARREL DEAN [US]) 22 December 2005 (2005-12-22) page 2, line 23 - line 28	8-15
A	page 12, line 23 - page 13, line 18; figures	1-7, 16-21
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<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> See patent family annex.		
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Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016		Authorized officer <p align="center">RAKOTONDRAJAONA, C</p>

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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.
Y	WO 01/39830 A (EPIC BIOSONICS INC [CA]; BERRANG PETER G [CA]; BLUGER HENRY V [CA]; JA) 7 June 2001 (2001-06-07)	8-21
A	page 8, line 15 - line 20 page 11, line 6 - line 8 page 12, line 15 - line 20 page 14, line 6 - page 15, line 7 page 26, line 21 - page 27, line 2; figures	1-7
Y	US 6 178 353 B1 (GRIFFITH GLEN A [US] ET AL) 23 January 2001 (2001-01-23)	8-21
A	column 5, line 45 - column 6, line 44 column 7, line 20 - line 41; figures	1-15

INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 0931564	A	28-07-1999	NONE
US 2004176803	A1	09-09-2004	US 2004176805 A1
WO 2005120631	A	22-12-2005	AU 2004320509 A1 CA 2572191 A1 EP 1768740 A1 JP 2008501404 T
WO 0139830	A	07-06-2001	AU 770943 B2 AU 1845901 A CA 2384248 A1 EP 1233812 A2 US 6358281 B1 US 2002019669 A1
US 6178353	B1	23-01-2001	NONE