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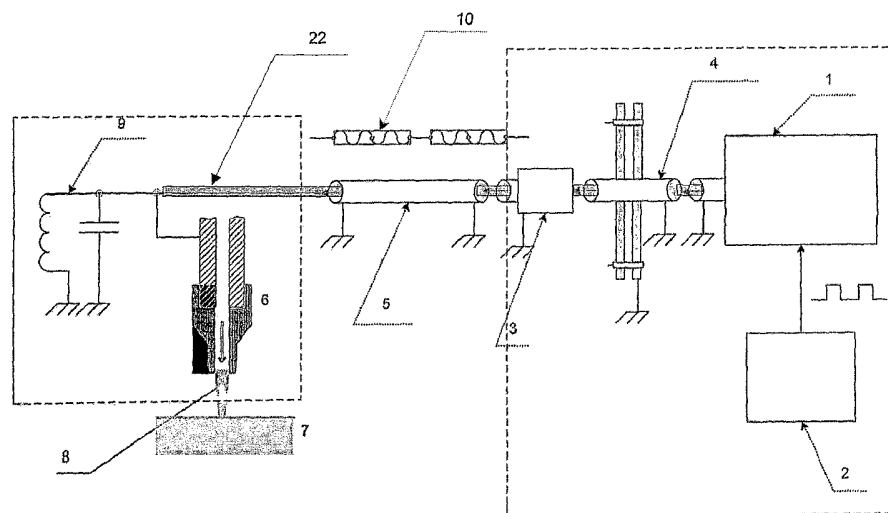
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(54) Title: SYSTEM AND METHOD FOR TREATING BIOLOGICAL TISSUE WITH A PLASMA GAS DISCHARGE



(57) Abstract: Devices and methods for treating biological tissue (7) using a plasma gas-discharge (8) are disclosed herein. An electrode (6) for igniting a gas flow to form a plasma gas-discharge, wherein the electrode is configured within the device such that upon encountering a surface of the biological tissue by the electrode, a path of current from the electrode to the surface of the biological tissue is formed, thereby igniting the gas flow and forming the plasma gas-discharge. In some embodiments, electromagnetic interactions between the treated biological tissue and the plasma gas discharge traversing the electromagnetic interaction gap shape the profile of the plasma gas discharge. A method of transdermal ion delivery of a plasma flux to biological tissue as a means of treating the biological tissue is also provided.

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# INTERNATIONAL SEARCH REPORT

International application No.

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<b>A. CLASSIFICATION OF SUBJECT MATTER</b> IPC: <b>A61B 18/18( 2006.01)</b>  USPC:        606/41 According to International Patent Classification (IPC) or to both national classification and IPC		
<b>B. FIELDS SEARCHED</b>  Minimum documentation searched (classification system followed by classification symbols) U.S. : 606/20-52  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)		
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- Y	US 6,149,620 A (Baker et al.) 21 November 2000 (21.11.2000), entire document.	1,38,43,54,55,84,85,86, 87 ----- 2-37,39-42,44-53,56- 83,88
X --- Y	US 6,228,078 B1 (Eggers et al.) 8 May 2001 (08.05.2001), entire document.	1,38,43,54,55,84,85,86, 87 ----- 2-37,39-42,44-53,56- 83,88
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex.		
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"O" document referring to an oral disclosure, use, exhibition or other means	"&"	document member of the same patent family
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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 <div style="text-align: center;">                      Linda C Dvorak                      Telephone No. 571-272-4764                 </div>	

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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 --- Y	US 6,595,990 B1 (Weinstein et al.) 22 July 2003 (22.07.2003), entire document.	1,38,43,54,55,84,85,8 6,87 ----- 2-37,39-42,44-53,56- 83,88
X --- Y	US 6,780,178 B2 (Palanker et al.) 24 August 2004 (24.08.2004), entire document.	1,38,43,54,55,84,85,8 6,87 ----- 2-37,39-42,44-53,56- 83,88