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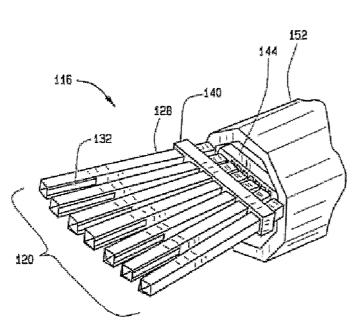
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(54) Title: ELECTROSURGICAL SYSTEMS AND METHODS



(57) Abstract: An electrosurgical device includes a plurality of electrodes for forming a plurality of bipolar circuits usable for affecting a patient's tissue during a surgical operation. At least one of said electrodes is operable as an active electrode in one of said bipolar circuits and as a return electrode in another one of said bipolar circuits.



INTERNATIONAL SEARCH REPORT

International application No.

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| A. CLASSIFICATION OF SUBJECT MATTER IPC(7) : A61B 18/18 US CL : 606/41 | | | |
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| 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) | | | |
| U.S. : 606/32-34, 41, 42, 48-50 | | | |
| Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched | | | |
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| 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 ap | | Relevant to claim No. |
| X Y | US 5,546,940 Å (PANESCU et al) 20 August 1996 (| (20.08.1996), whole document | 1,2,4-7,12,13,19- 25,57-32,34- 36,41,42,48-53,55- |
| | | • | 82,87,96 |
| ļ | | | 3,8- |
| į | | | 10,17,26,33,37,46,47, 54,83-85,91-95 |
| Y | US 5,462,545 A (WANG et al) 31 October 1995 (31 | .10.1995), whole document | 3,8-10,26,33,37- 39,54,83-85,91,92 |
| Y | US 5,837,001 A (MACKEY) 17 November 1998 (17.11.1998), whole document | | 17,46,47 |
| Y | US 5,810,811 A (YATES et al) 22 September 1998 (22.09.1998), figures | | 1, 57, 93-95 |
| A | US 5,860,920 A (McGEE et al) 19 January 1999 (19.01.1999), whole document | | 1-96 |
| A | US 2003/0069573 A1 (KADHIRESAN et al) 10 April 2003 (10.04.2003), whole document | | 1-96 |
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