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(81) **Designated States** (*unless otherwise indicated, for every*

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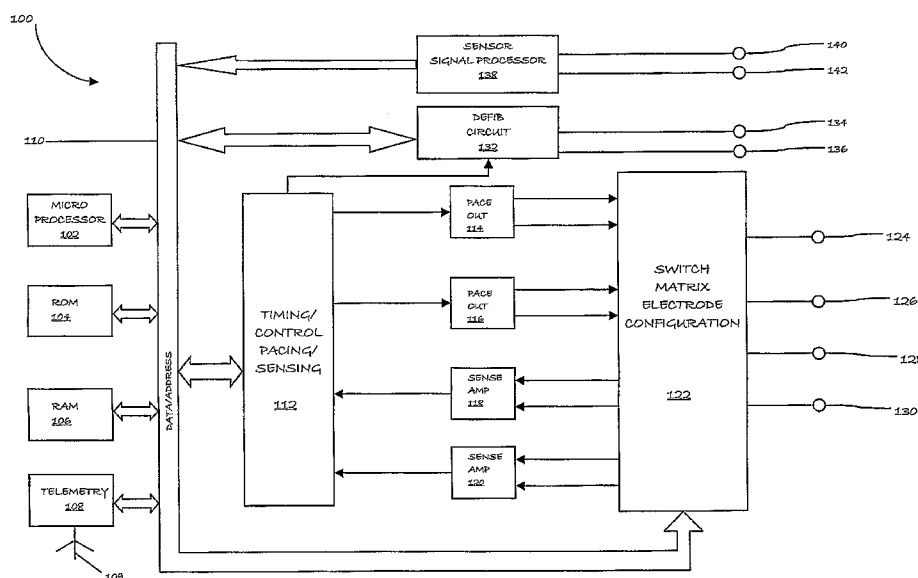
kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations 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, GR, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU,

[Continued on next page]

(54) Title: SYSTEM AND METHOD FOR USING ATRIAL PACING TO ENHANCE FUNCTION OF STUNNED ATRIAL MYOCARDIUM FOLLOWING CONVERSION TO NORMAL SINUS RHYTHM



(S7) Abstract: An implantable medical device (IMD) includes a therapy circuit for delivering atrial pacing and a control circuit for detecting a return to sinus rhythm, determining the duration of atrial arrhythmia preceding the return to sinus rhythm, and controlling the therapy circuit to deliver transient atrial pacing based on the duration. Further, the implantable medical device comprises means for using data from a hemodynamic sensor to select the pacing rate of the transient atrial pacing. The pacing may be overdrive pacing or paired pacing.



LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

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A. CLASSIFICATION OF SUBJECT MATTER
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B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
A61N

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 practical, search terms used)

EP0-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2002/099414 A1 (EVERS XANDER ET AL) 25 July 2002 (2002-07-25)	1,2,4,6, 7,9-12, 14,15, 17,20
Y		5,13,16
Y	p. 6, [0060] - p. 7, [0076]; p. 8, [0080] - p. 9, [0087]; figures 3,6,7	3,8,18, 19
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☒ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

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International application No

PCT/US2006/011374

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	TAKAGI M ET AL: "Acute improvement of atrial mechanical stunning after electrical cardioversion of persistent atrial fibrillation: comparison between biatrial and single atrial pacing." HEART (BRITISH CARDIAC SOCIETY) JAN 2005, vol. 91, no. 1, January 2005 (2005-01), pages 58-63, XP002397041 ISSN: 1468-201X page 58, left-hand column, line 1 page 60, left-hand column page 62, left-hand column, paragraphs MAIN, FINDINGS - page 62, right-hand column, paragraphs CLINICAL, IMPLICATIONS	1,2,4-7, 9,12-17 3,8,10, 11,18-20
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International application No
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