

Title (en)
METHODS FOR DETECTING AND EVALUATING HEART DISORDERS

Publication
EP 0487706 A4 19930728 (EN)

Application
EP 91912397 A 19910606

Priority
• US 54188190 A 19900620
• US 70175391 A 19910517

Abstract (en)
[origin: WO9119452A1] ECG signals are received from the patient (102), processed (103) to determine deviations from the normal and displayed (104) either as a frequency transformed signal or as a graph of the signal against one of its derivatives in a phase plane plot. The results, depending on the signal and circumstances may be interpreted to obtain information about heart disorders, the degree of drug toxicity or the efficacy of a particular drug. Further, an automatic defibrillator uses the ECG signal received (703) from the patient and processes (704) processing to determine the amount of energy to be discharged into the heart by the shock device (705).

IPC 1-7
A61B 5/044

IPC 8 full level
A61B 5/0452 (2006.01); **A61B 10/00** (2006.01); **A61N 1/08** (2006.01); **A61N 1/39** (2006.01); **G06F 17/00** (2006.01)

CPC (source: EP US)
A61N 1/3925 (2013.01 - EP US)

Citation (search report)
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• [X] CIRCULATION vol. 81, no. 3, March 1990, pages 886 - 898 PAULUS W.J. ET AL 'WIDE RANGE LOAD SHIFT OF COMBINED AORTIC VALVULOPLASTY-ARTERIAL VASODILATION SLOWS ISOVOLUMIC RELAXATION OF THE HYPERTROPHIED LEFT VENTRICLE'
• [X] INTERNATIONAL JOURNAL OF SYSTEM SCIENCE vol. 13, no. 6, June 1982, pages 703 - 706 NATH N.G. ET AL 'PHASE PLANE PRESENTATION OF ELECTROCARDIOGRAMS'
• [X] RAVELLI F, ANTOLINI R: "ANALYSIS OF THE VENTRICULAR FIBRILLATION ECG WITH METHODS FROM NONLINEAR DYNAMICS", PROCEEDINGS OF THE COMPUTERS IN CARDIOLOGY MEETING. JERUSALEM, SEPT. 19 - 22, 1989., WASHINGTON, IEEE COMP. SOC. PRESS., US, vol. MEETING 16, 19 September 1989 (1989-09-19), US, pages 501 - 504, XP000200721, ISBN: 978-0-8186-2114-7
• [A] PROCEEDINGS OF THE 8TH NORTHEAST BIOENGINEERING CONFERENCE; IEEE PRESS, NEW YORK, US 1980, CAMBRIDGE, MA, US pages 217 - 221 KLINGER J.W. ET AL 'PHASE PLAN ANALYSIS AS A SENSITIVE INDICATOR OF LEFT VENTRICULAR KINETICS'
• [A] MATHEMATICAL BIOSCIENCES vol. 37, no. 1-2, 1977, pages 51 - 61 JORNE J. ET AL 'LIAPUNOV STABILITY OF THE DIFFUSIVE LOTKA-VOLTERRA EQUATIONS'
• See references of WO 9119452A1

Designated contracting state (EPC)
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