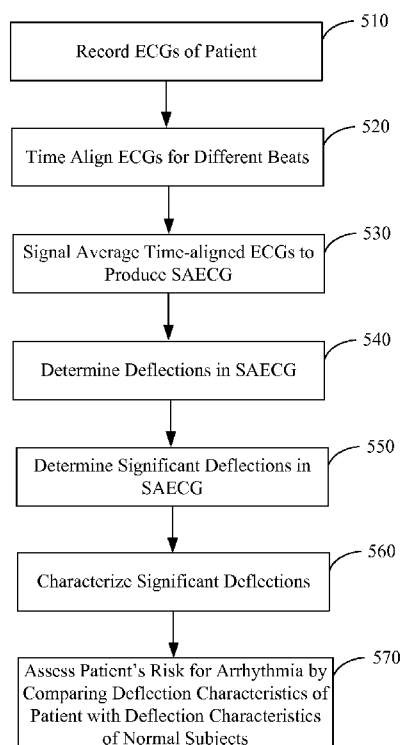




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[Continued on next page]

(54) Title: ELECTROCARDIOGRAPHIC ASSESSMENT OF ARRHYTHMIA RISK



(57) Abstract: Systems and methods are provided in the disclosure for estimating a risk of arrhythmia in a patient using electrocardiographic analysis. In certain aspects, a method of estimating a risk of arrhythmia in a patient is provided. The method comprises receiving electrocardiographic signals of the patient from a plurality of leads over a plurality of heart beats, averaging the electrocardiographic signals to produce an averaged electrocardiographic signal, and determining deflections in the averaged electrocardiographic signal, wherein each deflection has an amplitude and a duration. The method further comprises determining a significance of each deflection based on whether the amplitude of that deflection exceeds a threshold, and estimating a risk of arrhythmia in the patient based on at least one of a number, the amplitudes, and the durations of the significant deflections within a portion of the averaged electrocardiographic signal.

Fig. 5



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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)

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Korean utility models and applications for utility models

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eKOMPASS(KIPO internal) & Keywords: ECG, arrhythmia, risk, deflection, extrema, average

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2008-0065162 A1 (MICHAEL PITTARO) 13 March 2008 See abstract, paragraphs [0019]-[0020],[0037]-[0040], claims 1-28, and figures 1,5.	1-20
A	US 05609158 A (CHAN; ERIC K. Y.) 11 March 1997 See abstract, column 13, line 60 - column 18, line 20, claims 1,2, and figures 3-5.	1-20
A	US 2011-0054335 A1 (ZHANG HONGXUAN) 03 March 2011 See abstract, paragraphs [0018]-[0021], claims 1-10, and figures 1,2,5,8.	1-20
A	US 2010-0217144 A1 (BRIAN ARENARE) 26 August 2010 See abstract, paragraphs [0030]-[0032], claim 6, and figure 1.	1-20



Further documents are listed in the continuation of Box C.



See patent family annex.

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		W0 2009-005734 A3	08.01.2009