

Title (en)
SYSTEM AND METHOD OF EXTRACTION, IDENTIFICATION, MAKING AND DISPLAY OF THE HEART VALVE SIGNALS

Title (de)
SYSTEM UND VERFAHREN ZUR EXTRAKTION, IDENTIFIZIERUNG, HERSTELLUNG UND ANZEIGE VON HERZKLAPPENSIGNALEN

Title (fr)
SYSTÈME ET PROCÉDÉ D'EXTRACTION, D'IDENTIFICATION, DE PRODUCTION ET D'AFFICHAGE DES SIGNAUX DE VALVULE CARDIAQUE

Publication
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Application
EP 17736198 A 20170103

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- US 2017012031 W 20170103

Abstract (en)
[origin: WO2017120138A1] A system (100) for monitoring and diagnosing heart conditions includes a sensor array (102) with accelerometers, an electrocardiogram sensor, and a system to synchronously capture and process (103, 105, or 106) composite heart signals. The system performs separation, identification and marking (201-205 or 501-509) of the signals, to extract information in cardiac vibrations. Machine learning, auditory scene analysis, or sparse coding approaches can be used to resolve source separation problems. Analysis of the composite signals separates different vibration signals (302, 303, 304, 305), identifies streams for particular valve signal, and marks them with event time information with respect to a synchronous electrocardiogram signal (306). The psychoacoustic analysis mimics human auditory processing to enhance hearing of heart valve sounds by separating valve vibrations from the composite signal, and providing extraction, identification, marking and display of individual valve signals.

IPC 8 full level
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Citation (search report)

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Designated contracting state (EPC)
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