Title (en)
METHOD AND APPARATUS FOR IDENTIFYING THE SOURCE OF AN IMPULSIVE OR EXPLOSIVE EVENT

Title (de)
VERFAHREN UND VORRICHTUNG ZUR IDENTIFIZIERUNG DES QUELLENTYPS IMPULSIVER ODER EXPLOSIVER SCHALLEREIGNISSE

Title (fr)
PROCEDE ET APPAREIL D'IDENTIFICATION DE LA SOURCE D'UN EVENEMENT IMPULSIONNEL OU EXPLOSIF

Publication
EP 1317678 A2 20030611 (EN)

Application
EP 01965444 A 20010911

Priority
- GB 0104086 W 20010911
- GB 0022488 A 20000913

Abstract (en)
[origin: WO0223221A2] This invention consists of a system with the capability of acquiring an acoustic signature with high precision, which can be used to identify artillery or other sources of explosive shock waves from their acoustic signatures. It includes two high-performance microphones (20, 22), one of which acts as a triggering microphone (22). This microphone (22) is harboured within a special chamber (12) containing a floating panel or wall (14), which is inserted in such a way that it is free to vibrate slightly. Any impulsive acoustic signal causes an internal impulse pressure to be built up, causing data acquisition to commence. The anti-alias filtered, digitised signal from the measurement microphone (20) is then processed in such a manner that certain parameters can be extracted. The most significant of these parameters are the "Modified Mach Number", the "Sound Intensity Level", the "Acoustic Shock Wave Energy Potential" and the "Decision Pattern" and two- or three-dimensional "Decision Function", which can be used to identify the origin of the explosive or impulsive shock wave.

IPC 1-7
G01V 1/00

IPC 8 full level
F41H 11/00 (2006.01); **G01V 1/00** (2006.01); G01S 5/18 (2006.01)

CPC (source: EP)
F41H 11/00 (2013.01); **G01V 1/00** (2013.01); G01S 5/18 (2013.01)

Citation (search report)
See references of WO 0223221A2

Designated contracting state (EPC)
AT BE CH DE FR GB LI

DOCDB simple family (publication)
WO 0223221 A2 20020321; **WO 0223221 A3 20020801**; AU 8608501 A 20020326; EP 1317678 A2 20030611; GB 0022488 D0 20010919

DOCDB simple family (application)
GB 0104086 W 20010911; AU 8608501 A 20010911; EP 01965444 A 20010911; GB 0022488 A 20000913