

Title (en)

Timepiece including a high-frequency mechanical movement

Title (de)

Uhr mit einem mechanischen Hochfrequenzuhrwerk

Title (fr)

Pièce d'horlogerie comportant un mouvement mécanique à haute fréquence

Publication

**EP 2363762 A1 20110907 (FR)**

Application

**EP 10155490 A 20100304**

Priority

EP 10155490 A 20100304

Abstract (en)

The timepiece has a movement (5) comprising a resonator (9) constituted of a variable inertia type balance (8) and a balance spring (10), and an escape system (7) constituted of an escape wheel (11) and Swiss lever (13). The balance oscillates at 72,000 vibrations per hour. The escape system is partially pierced to reduce inertia of the escape system. The escape wheel is provided with 20 teeth, where the wheel is made of monocrystalline silicon coated with silicon dioxide. The lever has pallet stones made of ruby.

Abstract (fr)

L'invention se rapporte à une pièce d'horlogerie (1) comportant un mouvement (5) comprenant un résonateur (9) du type balancier (8) - spiral (10) et un système d'échappement (7) du type roue (11) - ancre suisse (13). Selon l'invention, le balancier (8) oscille à plus de 36'000 alternances par heure et le système d'échappement (7) est au moins partiellement ajouré afin de diminuer son inertie. L'invention concerne le domaine des mouvements horlogers à haute fréquence.

IPC 8 full level

**G04B 15/08** (2006.01)

CPC (source: EP US)

**G04B 13/022** (2013.01 - EP US); **G04B 13/027** (2013.01 - EP US); **G04B 15/08** (2013.01 - EP US); **G04F 7/0866** (2013.01 - EP US)

Citation (search report)

- [XAYI] EP 2075651 A1 20090701 - CHOPARD TECHNOLOGIES SA [CH]
- [A] WO 2004029733 A2 20040408 - FORE EAGLE CO LTD [CN], et al
- [Y] EP 2107434 A1 20091007 - MANUF ET FABRIQUE DE MONTRES E [CH], et al
- [A] EP 1983388 A1 20081022 - ETA SA MFT HORLOGERE SUISSE [CH]

Citation (third parties)

Third party :

- EP 2230570 A2 20100922 - MHVJ MANUFACTURE HORLOGERE VAL [CH]
- GENOLET G. ET AL: "Nouvelles fonctionnalités pour pièces horlogères données par la technologie LiG(A)", BULLETIN SSC, no. 46, September 2004 (2004-09-01), pages 19 - 22, XP003028694

Cited by

EP2784600A3; EP2363763A3; WO2015056114A1; EP2860591A1; US9488961B2; EP2860592A1; US9671755B2

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

Designated extension state (EPC)

AL BA ME RS

DOCDB simple family (publication)

**EP 2363762 A1 20110907; EP 2363762 B1 20171122**; CN 102193485 A 20110921; CN 102193485 B 20131016; EP 2363763 A2 20110907; EP 2363763 A3 20111116; HK 1162695 A1 20120831; JP 2011185932 A 20110922; JP 5576320 B2 20140820; TW 201144954 A 20111216; TW I531880 B 20160501; US 20111216629 A1 20110908; US 8500323 B2 20130806

DOCDB simple family (application)

**EP 10155490 A 20100304**; CN 201110052406 A 20110304; EP 11153258 A 20110203; HK 12102706 A 20120319; JP 2011047421 A 20110304; TW 100104925 A 20110215; US 201113039917 A 20110303