

Title (en)
Luminour hairspring

Title (de)
Leuchtende Spiralfeder

Title (fr)
Spiral lumineux

Publication
EP 2717103 A1 20140409 (FR)

Application
EP 12187216 A 20121004

Priority
EP 12187216 A 20121004

Abstract (en)
The element (1) has a balance (2), a balance coq (3), and a hairspring (4) secured between the balance and the balance coq. The hairspring transmits and diffuses light emitted by a light energy source (5), where the hairspring is formed from quartz, glass, ceramic or material partially transparent to visible and/or UV wavelengths or a partially amorphous material. The balance coq carries the source near an external end (6) of the hair spring. The balance carries the light energy source near an internal end (7) of the hair spring. An independent claim is also included for a mechanical clockwork movement.

Abstract (fr)
Organe régulateur (1) de montre ou de pièce d'horlogerie comportant un balancier (2), un coq (3) et au moins un ressort-spiral (4) fixé entre ledit balancier (2) et ledit coq (3). Ledit au moins un ressort-spiral (4) est en quartz ou en verre ou en céramique ou partiellement transparent aux longueurs d'onde visible et/ou ultra-violet ou en matériau au moins partiellement amorphe, et transmet et diffuse de la lumière émise par au moins une source d'énergie lumineuse (5).

IPC 8 full level
G04B 17/06 (2006.01); **G04B 45/00** (2006.01); **G04B 45/02** (2006.01)

CPC (source: EP US)
G04B 17/06 (2013.01 - EP US); **G04B 17/066** (2013.01 - EP); **G04B 17/066** (2013.01 - US); **G04B 45/0007** (2013.01 - EP US); **G04B 45/02** (2013.01 - EP US)

Citation (search report)
• [XAI] CH 699780 A2 20100430 - RICHEMONT INT SA [CH]
• [XAI] EP 1605182 A1 20051214 - SUISSE ELECTRONIQUE MICROTECH [CH]
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• [XAI] WO 2008080570 A2 20080710 - COMPLITIME S A [CH], et al
• [A] FR 2957688 A1 20110923 - RHUL PHILIPPE [FR], et al

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EP3002635A1; EP3722887A1; US12055893B2; EP3226084A1

Designated contracting state (EPC)
AL 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 RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
EP 2717103 A1 20140409; EP 2717103 B1 20170111; CN 104704431 A 20150610; CN 104704431 B 20170301; HK 1210637 A1 20160429; JP 2015534071 A 20151126; JP 5918449 B2 20160518; RU 2596097 C1 20160827; US 2015261187 A1 20150917; US 9188958 B2 20151117; WO 2014053336 A1 20140410

DOCDB simple family (application)
EP 12187216 A 20121004; CN 201380052006 A 20130920; EP 2013069560 W 20130920; HK 15111368 A 20151118; JP 2015534954 A 20130920; RU 2015116873 A 20130920; US 201314430646 A 20130920