

Title (en)  
TIMEPIECE RESONATOR COMPRISING AT LEAST ONE FLEXIBLE GUIDE

Title (de)  
UHRRESONATOR, DER MINDESTENS EINE FLEXIBLE FÜHRUNG UMFASST

Title (fr)  
RESONATEUR D'HORLOGERIE COMPORTANT AU MOINS UN GUIDAGE FLEXIBLE

Publication  
**EP 3982204 A1 20220413 (FR)**

Application  
**EP 20200689 A 20201008**

Priority  
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Abstract (en)  
[origin: CN114296333A] The invention relates to a timepiece resonator (100) comprising an inertial element (5) movable relative to a fixed structure (4) and suspended to at least one flexible guide (10) comprising a plurality of flexible strips (1; 2), the projections of the plurality of flexible strips on the plane XY intersect at a single projection intersection region ZC, each flexible strip being deformable in a plane parallel to the plane XY, each flexible strip being deformable in a neutral surface (SN1; SN2) extends in the form of a belt on both sides and connects the first mounting portion (41; 42) to the fastening structure (4) and connecting the second mounting portion (51; 52) is connected to the inertial element (5), each flexible strip comprising at least one flexible strip in relation to its neutral surface (SN1; SN2), at least one rib (3) asymmetrical to each flexible strip (1; SN2), at a projected intersection region ZC, each flexible strip (1; 2) does not comprise any rib (3), or each rib (3) is asymmetric with respect to its neutral surface.

Abstract (fr)  
Résonateur d'horlogerie (100) comportant un élément inertiel (5) mobile par rapport à une structure fixe (4), et suspendu à un guidage flexible (10) comportant des lames flexibles (1; 2) croisées en projection sur un plan XY au niveau d'une zone de croisement ZC unique, chacune déformable dans un plan parallèle au plan XY chacune s'étendant en ruban de part et d'autre d'une surface neutre (SN1; SN2) perpendiculaire au plan XY et joignant le premier encastrement (41; 42) avec la structure (4) et le deuxième encastrement (51; 52) avec l'élément inertiel (5), et comportant au moins une nervure (3) asymétrique par rapport à sa surface neutre (SN1; SN2), et, au niveau de la zone de croisement ZC, ou bien chaque lame flexible (1; 2) ne comporte aucune nervure (3), ou bien chaque nervure (3) est asymétrique par rapport à sa surface neutre (SN1; SN2).

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**G04B 31/02** (2013.01 - EP)

Citation (applicant)  
• EP 3035126 A1 20160622 - SWATCH GROUP RES & DEV LTD [CH]  
• EP 3206089 A1 20170816 - SWATCH GROUP RES & DEV LTD [CH]  
• EP 18179623 A 20180625  
• CH 714024 A2 20190131 - SWATCH GROUP RES & DEV LTD [CH]  
• CH 714031 A2 20190131 - SWATCH GROUP RES & DEV LTD [CH]  
• EP 3667432 A1 20200617 - ETA SA MFT HORLOGERE SUISSE [CH]

Citation (search report)  
[X] CH 715641 A2 20200615 - ETA SA MFT HORLOGERE SUISSE [CH]

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