

Title (en)  
Single-body double spiral and method for manufacturing same

Title (de)  
Monoblock-Doppelspirale und ihr Herstellungsverfahren

Title (fr)  
Double spiral monobloc et son procédé de fabrication

Publication  
**EP 2104006 B1 20100714 (FR)**

Application  
**EP 08153094 A 20080320**

Priority  
EP 08153094 A 20080320

Abstract (en)  
[origin: EP2104006A1] The spiral (21) has a collet (27) formed by patterns. One of the patterns is projected from a hairspring (23) and formed in a silicon based layer. The hairspring is coaxially mounted on the collet. Another pattern is extended into another silicon based layer so as to be coaxial with another hairspring (25) for forming the monoblock double spiral in silicon based material. The hairspring (23) made of silicon based material is oxidized. An internal spire of one of the hairsprings is provided with a Grossmann curve. An independent claim is also included for a method for fabricating a double spiral.

IPC 8 full level  
**G04B 17/06** (2006.01); **G04D 3/00** (2006.01)

CPC (source: EP KR US)  
**G04B 17/066** (2013.01 - EP KR US); **G04B 17/34** (2013.01 - KR); **G04D 3/0041** (2013.01 - EP KR US); **Y10T 29/49609** (2015.01 - EP US)

Cited by  
EP3907565A1; EP3081996A1; CN111001558A; EP3483666A1; EP2405312A1; EP2405313A1; EP2613206A1; EP2579104A3; US9594350B2; US11703804B2; US9004748B2; US8480294B2; EP2154583A1; EP2523053A1; WO2019180558A1; WO2021224804A1; WO2019092666A1; JP2016206179A; TWI796444B

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 MT NL NO PL PT RO SE SI SK TR

DOCDB simple family (publication)  
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