

Title (en)

IMPROVED COIL CAPABLE OF GENERATING AN INTENSE MAGNETIC FIELD AND METHOD FOR MANUFACTURING SAID COIL

Title (de)

VERBESSERTE SPULE ZUR ERZEUGUNG EINES STARKEN MAGNETFELDES UND VERFAHREN ZU HERSTELLUNG EINER DERARTIGEN SPULE

Title (fr)

BOBINE AMÉLIORÉE APTE À GÉNÉRER UN CHAMP MAGNÉTIQUE INTENSE ET PROCÉDÉ DE FABRICATION DE LADITE BOBINE

Publication

EP 2561521 B1 20180530 (FR)

Application

EP 11714783 A 20110419

Priority

- FR 1052952 A 20100419
- EP 2011056194 W 20110419

Abstract (en)

[origin: WO2011131645A1] The invention relates to a method for manufacturing a coil to generate an intense magnetic field when an electrical current flows therethrough, said coil comprising forming turns in a tube made from a conducting or superconducting material, forming at least one depression in an edge of at least one turn of said coil, and positioning an insulating material between the turn including the depression and an adjacent turn, wherein said depression is provided in the edge to form a passage between the interior and the exterior of the tube with the insulating material when the coil is stressed. The invention also relates to a coil for generating an intense magnetic field when an electrical current flows therethrough, said coil consisting of at least one tube (2) made from a conductive or superconductive material and cut along a cutout line to form turns (3), having an insulating material that at least partially fills the cutout line, and at least one turn (3) comprising a depression (10) formed in an edge opposite said insulating material, said depression (10) forming a passage between the interior and the exterior of the tube (2) with the insulating material when the coil is stressed.

IPC 8 full level

H01F 5/02 (2006.01); **H01F 6/04** (2006.01); **H01F 6/06** (2006.01); **H01F 7/20** (2006.01); **H01F 41/04** (2006.01)

CPC (source: EP KR US)

H01F 6/06 (2013.01 - EP KR US); **H01F 7/20** (2013.01 - KR); **H01F 7/202** (2013.01 - EP US); **H01F 41/04** (2013.01 - EP KR US); **H01F 5/02** (2013.01 - EP US); **H01F 6/04** (2013.01 - EP US); **Y10T 29/4902** (2015.01 - EP US)

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

DOCDB simple family (publication)

FR 2959059 A1 20111021; CN 102934178 A 20130213; CN 102934178 B 20160504; EP 2561521 A1 20130227; EP 2561521 B1 20180530; JP 2013529377 A 20130718; JP 5913288 B2 20160427; KR 101874652 B1 20180802; KR 20130060182 A 20130607; US 2013038331 A1 20130214; US 9275780 B2 20160301; WO 2011131645 A1 20111027

DOCDB simple family (application)

FR 1052952 A 20100419; CN 201180030170 A 20110419; EP 11714783 A 20110419; EP 2011056194 W 20110419; JP 2013505446 A 20110419; KR 20127027232 A 20110419; US 201113641685 A 20110419