

Title (en)

FLEXIBLE STRUCTURE FOR GENERATING ELECTRICAL ENERGY FROM WAVE MOTIONS

Title (de)

FLEXIBLE STRUKTUR ZUR ERZEUGUNG ELEKTRISCHER ENERGIE AUS WELLENBEWEGUNGEN

Title (fr)

STRUCTURE FLEXIBLE DESTINÉE À PRODUIRE DE L'ÉNERGIE ÉLECTRIQUE À PARTIR DU MOUVEMENT DES VAGUES

Publication

**EP 2737202 A2 20140604 (DE)**

Application

**EP 12735536 A 20120716**

Priority

- DE 102011080120 A 20110729
- EP 2012063888 W 20120716

Abstract (en)

[origin: WO2013017400A2] Apparatus for generating electrical energy from the motion of waves, comprising at least one flexible, floating tube which is closed at both of its ends, characterized in that the flexible, floating tube comprises a wall which has at least one horizontal stack which extends in the longitudinal direction of the flexible, floating tube and comprises at least one layer comprising a layer of an electroactive polymer and at least one layer which functions as a flexible electrode, and also a method for generating electrical energy from wave motions, in which the flexible, floating tube is exposed to the wave motions, as a result of which sections of the stacks are expanded or compressed, and the layers of the electroactive polymers in the compressed sections are charged with the aid of control electronics, and then the excess electrical energy which results from the decompression of these sections and the associated separation of the charges in the electroactive polymer of this region is obtained by a capacitive discharging phase.

IPC 8 full level

**F03B 13/14** (2006.01); **H01L 41/113** (2006.01)

CPC (source: EP US)

**F03B 13/14** (2013.01 - EP US); **F03B 13/20** (2013.01 - US); **H02N 2/18** (2013.01 - EP US); **Y02E 10/30** (2013.01 - EP US)

Citation (search report)

See references of WO 2013017400A2

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)

**DE 102011080120 A1 20130131**; EP 2737202 A2 20140604; US 2014319969 A1 20141030; WO 2013017400 A2 20130207; WO 2013017400 A3 20130328

DOCDB simple family (application)

**DE 102011080120 A 20110729**; EP 12735536 A 20120716; EP 2012063888 W 20120716; US 201214235882 A 20120716