

Title (en)
SUBMERGIBLE SLOPED ABSORPTION BARRIER WAVE ENERGY CONVERTER

Title (de)
WELLENENERGIEWANDLER MIT VERSENKBARER GENEIGTER ABSORPTIONSBARRIERE

Title (fr)
HOULOMOTRICE À BARRIÈRE D'ABSORPTION INCLINÉE SUBMERSIBLE

Publication
EP 2751419 A1 20140709 (EN)

Application
EP 12827707 A 20120903

Priority

- US 201113199607 A 20110902
- US 201161628732 P 20111105
- US 201213506680 A 20120508
- US 2012053590 W 20120903

Abstract (en)
[origin: WO2013033685A1] An ocean wave energy converter uses one or more buoyant elongated float(s) self orienting toward oncoming wave fronts and rnovably affixed to a motion stabilized controlled buoyancy frame by down sloping tracks constraining the wave induced motion of the float(s) to an upward and rearward motion as oncoming wave crests impact and lift the barrier(s) and downward and forward as subsequent wave troughs return it. Motion between the barrier(s) and the frame is resisted and energy captured by a programmable electric or hydraulic power take off system. Capture efficiency is further enhanced by adjusting float mass and buoyancy by controlling water entering or exiting cavities in the float(s), use of wave shoaling and focusing means, and adjusting the submerged depth and slope angle of the device with adjustable frame air-water ballast tanks which also allow total float submergence during severe sea states.

IPC 8 full level
B63B 22/20 (2006.01); **F03B 13/18** (2006.01); **F03B 13/20** (2006.01)

CPC (source: EP)
F03B 13/182 (2013.01); **F03B 13/185** (2013.01); **B63B 22/20** (2013.01); **B63B 2035/4466** (2013.01); **Y02E 10/30** (2013.01)

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)
WO 2013033685 A1 20130307; CA 2847346 A1 20130307; EP 2751419 A1 20140709; EP 2751419 A4 20150506

DOCDB simple family (application)
US 2012053590 W 20120903; CA 2847346 A 20120903; EP 12827707 A 20120903