

# Alerta

## Tecnología Energía Marina

Base explorada	Restricción	Registros
Repositorio INAPIPROYECTA	2006-2011	14
Código filtrado		
<b>Palabra clave</b>	<b>Área:</b> ERNC	<b>Sub área:</b> Tecnología Energía Marina

## PATENTES

### ▶ AIR TURBINE FOR A WAVE POWER STATION

EP20080870974	<b>País:</b> Alemania	<b>Solicitante:</b> VOITH PATENT GMBH	<b>Fecha:</b> 2008/12/30
<b>Inventores:</b>	ARLITT, RAPHAEL, ; BANZHAF, HANS-ULRICH, ; STARZMANN, RALF, ; BISKUP, FRANK		
<b>Resumen:</b>	<p>The present invention is primarily directed to cost-effective systems for using large reflective elements that track the sun on two axes to concentrate solar energy onto a receiver that can convert the sun's optical energy to a form usable for extensive displacement of combustion of fossil fuels. The structures of the tracker frame, tracking mechanism and tracker supports are co-optimized with the optical elements and the receiver for high efficiency, low cost, and ease of assembly, making moderate and large-scale implementations cost-competitive with fossil fuels for peak power, and, with suitable storage, for base-load power and dispatchable peaking power in sunny locations. Improvement to small-tracker two-axis systems and one-axis tracking systems that focus in two dimensions are also included, as are improvements in systems for space-based solar power.</p>		
<b>Enlace:</b>	<a href="http://worldwide.espacenet.com/publicationDetails/biblio?DB=EPODOC&amp;II=0&amp;ND=3&amp;adjacent=true&amp;locale=en_EP&amp;FT=D&amp;date=20100929&amp;CC=EP&amp;NR=2232058A2&amp;KC=A2">http://worldwide.espacenet.com/publicationDetails/biblio?DB=EPODOC&amp;II=0&amp;ND=3&amp;adjacent=true&amp;locale=en_EP&amp;FT=D&amp;date=20100929&amp;CC=EP&amp;NR=2232058A2&amp;KC=A2</a>		

## ▶ GENERATING ELECTRICITY FROM MARINE ENERGY

GB20070014943	<b>País:</b> Gran Bretaña	<b>Solicitante:</b> MICHAEL NOEL EGGLETON	<b>Fecha:</b> 2007/08/01
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**Inventores:** MICHAEL NOEL EGGLETON

**Resumen:** A plurality of dc output generators 2 are positioned on the seabed such that, when a tidal current flows, turbines of the generators are caused to turn and this motion is employed for the generation of dc power. The outputs of the generators are connected in series to produce a summed voltage that is greater than the output voltage of each generator. A tidal energy farm 1 may, for example, comprise a matrix of twenty-five such generators, arranged in five strings A to E, each string comprising five generators connected electrically in series. Each generator may be a 2.5MW generator, generating a maximum voltage of 5Kv at a maximum current of 500 amps. The outputs of all of the strings A to E are connected in parallel to a positive output cable 3 and a negative output cable 4. Thus, the maximum output power on the cables 3 and 4 is 25 Kv at 2500 amps - that is, a total of 62.5 MW.

**Enlace:** [http://worldwide.espacenet.com/publicationDetails/biblio?DB=EPODOC&II=0&ND=3&adjacent=true&locale=en\\_EP&FT=D&date=20090204&CC=GB&NR=2451486A&KC=A](http://worldwide.espacenet.com/publicationDetails/biblio?DB=EPODOC&II=0&ND=3&adjacent=true&locale=en_EP&FT=D&date=20090204&CC=GB&NR=2451486A&KC=A)

## ▶ WAVE ENERGY DEVICE

MX20070006270	<b>País:</b> EE.UU.	<b>Solicitante:</b> WAVE ENERGY TECHNOLOGIES INC	<b>Fecha:</b> 2007/05/25
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**Inventores:** ALAN VOWLES, ; BRIAN KURCZABA, ; HEATHER ACRES

**Resumen:** A wave energy device converts the motion of waves on a body of water into a usable form of energy, for example a flow of pressurized water or an electrical current. The device includes a buoyant body for tracking the rise and fall of the wave and a working surface coupled for movement with the buoyant body and which is designed to capture and convert both heave and surge forces of the waves. The device includes a rapid deployment and retrieval capability and a capability to rotate to accommodate changes in wave direction. The device is universally attached to the sea floor, which allows the device to pitch, yaw and roll with the wave forces from any direction, thereby reducing the likelihood of damage due to extreme weather or damage to or from marine traffic in the event of an encounter.

**Enlace:** [http://worldwide.espacenet.com/publicationDetails/biblio?DB=EPODOC&II=0&ND=3&adjacent=true&locale=en\\_EP&FT=D&date=20071019&CC=MX&NR=2007006270A&KC=A](http://worldwide.espacenet.com/publicationDetails/biblio?DB=EPODOC&II=0&ND=3&adjacent=true&locale=en_EP&FT=D&date=20071019&CC=MX&NR=2007006270A&KC=A)

## ▶ RIVER AND TIDAL POWER HARVESTER

US20060585722	<b>País:</b> EEUU	<b>Solicitante:</b> DATO NO DISPONIBLE	<b>Fecha:</b> 2006/10/24
<b>Inventores:</b>	CATLIN C.S, ; CATLIN CHRISTOPHER S		
<b>Resumen:</b>	<p>An improved tidal and river energy converter having a semi-submerged device designed to harvest energy from the tidal and river sites. Each device is connected to other like devices to form an interconnected array of tidal and river energy devices that are anchored to the shore at right angles to the prevailing tidal and river current. Each device is composed of a supporting floatation hull attached to a submerged strut supporting an air compressor driven by a slow rotating propeller. The air compressor is connected through a streamlined mooring system to the other air compressors in the array and those in turn are connected to a high pressure line leading underwater to an onshore air turbine electric generator connected to the local power grid.</p>		
<b>Enlace:</b>	<a href="http://worldwide.espacenet.com/publicationDetails/biblio?DB=EPODOC&amp;II=0&amp;ND=3&amp;adjacent=true&amp;locale=en_EP&amp;FT=D&amp;date=20080424&amp;CC=US&amp;NR=2008093859A1&amp;KC=A1">http://worldwide.espacenet.com/publicationDetails/biblio?DB=EPODOC&amp;II=0&amp;ND=3&amp;adjacent=true&amp;locale=en_EP&amp;FT=D&amp;date=20080424&amp;CC=US&amp;NR=2008093859A1&amp;KC=A1</a>		

## ▶ TIDAL STREAM ENERGY CONVERSION SYSTEM

WO2006EP11870	<b>País:</b> Irlanda	<b>Solicitante:</b> DEVANEY, THEO	<b>Fecha:</b> 2006/12/08
<b>Inventores:</b>	DEVANEY, THEO		
<b>Resumen:</b>	<p>The present invention is concerned with an energy conversion system for converting tidal energy into electrical energy, the system comprising a barrier (112) deployable across a body of water, the barrier comprising an upper and lower closed loop (124) of cable between which are secured a series of sail arrays adapted to effect displacement of the cables around the closed loop, which motion is converted into electrical energy by one or more transducers forming part of the system.</p>		
<b>Enlace:</b>	<a href="http://worldwide.espacenet.com/publicationDetails/biblio?DB=EPODOC&amp;II=0&amp;ND=3&amp;adjacent=true&amp;locale=en_EP&amp;FT=D&amp;date=20070614&amp;CC=WO&amp;NR=2007065717A1&amp;KC=A1">http://worldwide.espacenet.com/publicationDetails/biblio?DB=EPODOC&amp;II=0&amp;ND=3&amp;adjacent=true&amp;locale=en_EP&amp;FT=D&amp;date=20070614&amp;CC=WO&amp;NR=2007065717A1&amp;KC=A1</a>		

## ▶ DEVICE FOR PRODUCTION OF ENERGY FROM CURRENTS IN WATER

WO2009N000235	<b>País:</b> Noruega	<b>Solicitante:</b> HYDRA TIDAL ENERGY TECHNOLOGY AS, ; HENRIKSEN, SVEIN, DAG	<b>Fecha:</b> 2009/06/24
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**Inventores:** HENRIKSEN, SVEIN, DAG

**Resumen:** A system for mooring a floating plant for the production of energy from currents in a body of water, comprising a plant (10) floating in the body of water and having at least one generator (7) for energy production, and at least one elongate first mooring element (24) which at a first end is connected to one end of the plant (10). The first mooring element (24) at its second end is attached to one buoyant element (50) floating in the body of water and anchored to a bottom (B) below the body of water, and the second end of the first mooring element (24) is connected to the buoyant element (50) at a level (d) in the body of water that corresponds to the level in the body of water at which the first end of the first mooring element (24) is connected to the floating plant (10), whereby the first mooring element (24) runs horizontally or almost horizontally in the body of water.

**Enlace:** [http://worldwide.espacenet.com/publicationDetails/biblio?DB=EPODOC&II=0&ND=3&adjacent=true&locale=en\\_EP&FT=D&date=20091230&CC=WO&NR=2009157778A2&KC=A2](http://worldwide.espacenet.com/publicationDetails/biblio?DB=EPODOC&II=0&ND=3&adjacent=true&locale=en_EP&FT=D&date=20091230&CC=WO&NR=2009157778A2&KC=A2)

## ▶ WATER WAVE ENERGY CONVERTER

WO2010AU00588	<b>País:</b> Australia	<b>Solicitante:</b> AQUAGEN TECHNOLOGIES PTY LTD, ; BOYD, NICHOLAS, ; BUDEN, MARTIN, GEORGE	<b>Fecha:</b> 2010/05/20
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**Inventores:** BOYD, NICHOLAS, ; BUDEN, MARTIN, GEORGE

**Resumen:** A water wave-based energy conversion system comprising: at least one buoyant body capable of floating on or below the surface of a body of water; at least one redirection device located at a stationary position; an energy converter; and at least one elongate connector operatively coupling the at least one buoyant body to the energy converter through the at least one redirection device. In use, the elongate connector transfers motion of the at least one buoyant body resulting from waves in the body of water to the energy converter for conversion into useful energy forms or products.

**Enlace:** [http://worldwide.espacenet.com/publicationDetails/biblio?DB=EPODOC&II=0&ND=3&adjacent=true&locale=en\\_EP&FT=D&date=20101125&CC=WO&NR=2010132930A1&KC=A1](http://worldwide.espacenet.com/publicationDetails/biblio?DB=EPODOC&II=0&ND=3&adjacent=true&locale=en_EP&FT=D&date=20101125&CC=WO&NR=2010132930A1&KC=A1)

## ▶ SYSTEM FOR WAVE ENERGY HARVESTING EMPLOYING TRANSPORT OF STORED ENERGY

WO2010US56403	<b>País:</b> EE.UU.	<b>Solicitante:</b> TRUSTEES OF BOSTON UNIVERSITY, ; FRAUNHOFER USA, INC, ; SHARON, ANDRE, ; WIRZ, HOLGER, ; BRIGGS, JOHN C, ; HARTMAN, WILLIAM, ; KLOCKE, FRITZ	<b>Fecha:</b> 2010/11/11
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**Inventores:** SHARON, ANDRE, ; WIRZ, HOLGER, ; BRIGGS, JOHN C, ; HARTMAN, WILLIAM, ; KLOCKE, FRITZ

**Resumen:** A protective transparent enclosure (such as a glasshouse or a greenhouse) encloses a concentrated solar power system (e.g. a thermal and/or a photovoltaic system). The concentrated solar power system includes one or more solar concentrators and one or more solar receivers. Thermal power is provided to an industrial process, electrical power is provided to an electrical distribution grid, or both. In some embodiments, the solar concentrators are dish-shaped mirrors that are mechanically coupled to a joint that enables rotation at a fixed distance about respective solar collectors that are fixed in position with respect to the protective transparent enclosure. In some embodiments, the solar collectors are suspended from structure of the protective transparent enclosure and the solar concentrators are suspended from the solar collectors.; In some embodiments, the greenhouse is a Dutch Venlo style greenhouse.

**Enlace:** [http://worldwide.espacenet.com/publicationDetails/biblio?DB=EPODOC&II=0&ND=3&adjacent=true&locale=en\\_EP&FT=D&date=20110519&CC=WO&NR=2011060183A2&KC=A2](http://worldwide.espacenet.com/publicationDetails/biblio?DB=EPODOC&II=0&ND=3&adjacent=true&locale=en_EP&FT=D&date=20110519&CC=WO&NR=2011060183A2&KC=A2)

## ▶ PHYDROPNEUMATIC SYSTEM FOR TRANSFORMING DISCONTINUOUS WAVE ENERGY INTO CONTINUOUS ENERGY

WO2011ES70300	<b>País:</b> España	<b>Solicitante:</b> DISENA, S.L, ; MARTINEZ BOUDES, DIEGO	<b>Fecha:</b> 2011/04/27
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**Inventores:** MARTINEZ BOUDES, DIEGO

**Resumen:** Hydropneumatic system for transforming discontinuous wave energy into continuous energy, comprising: a front with a plurality of openings (1) for collecting water from breaking waves, a plurality of converging water-collection conduits (3) related to the inlets (1), an adjustable vent valve (4) attached to the end of each converging conduit (3), followed by a one-way valve (5), both being protected by compartments upstream and downstream for maintenance thereof, at least one collector (6) that collects the fluid from each one-way valve (5), a pressure-integrating balance tank that receives the water from the collector (6), such that the horizontal forces generated by the waves are transformed into internal pressure in the hydropneumatic tank (7), and the incident discontinuous energy of the waves is transformed into uniform continuous energy.

**Enlace:** [http://worldwide.espacenet.com/publicationDetails/biblio?DB=EPODOC&II=0&ND=3&adjacent=true&locale=en\\_EP&FT=D&date=20111103&CC=WO&NR=2011135145A1&KC=A1](http://worldwide.espacenet.com/publicationDetails/biblio?DB=EPODOC&II=0&ND=3&adjacent=true&locale=en_EP&FT=D&date=20111103&CC=WO&NR=2011135145A1&KC=A1)

## ▶ WAVE POWER SYSTEM

WO2010RU00572	<b>País:</b> Rumania	<b>Solicitante:</b> YEGURNOV, VLADIMIR EDUARDOVICH, ; YELISTRATOV, VIKTOR VASILYEVICH, ; BYKOV, YEGOR NIKOLAYEVICH, ; MOROZ, MIKHAIL PROKOFYEVICH, ; MONAKOV, ALEXANDR MATVEYEVICH	<b>Fecha:</b> 2010/10/11
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**Inventores:** YEGURNOV, VLADIMIR EDUARDOVICH, ; YELISTRATOV, VIKTOR VASILYEVICH, ; BYKOV, YEGOR NIKOLAYEVICH, ; MOROZ, MIKHAIL PROKOFYEVICH, ; MONAKOV, ALEXANDR MATVEYEVICH

**Resumen:** The invention relates to hydrotechnical structures for producing electric power and for simultaneously protecting a coast from storms. The problem addressed by the invention is to improve the technical properties of the system by increasing the operating efficiency thereof. The wave power system comprises a hinged platform, a ramp which is connected thereto with the aid of a hinge-bracket and a pendulum hinge, and a linear generator which is connected to the platform by a hinge-bracket, wherein a rod is fastened to the base of the hinge-bracket, which can be displaced along the ramp by the action of waves on the platform, said rod being capable of transmitting mechanical oscillations to a magnetic core of the linear generator which is arranged along the axis of movement of the rod, indicated by the angle of inclination of the ramp.

**Enlace:** [http://worldwide.espacenet.com/publicationDetails/biblio?DB=EPODOC&II=0&ND=3&adjacent=true&locale=en\\_EP&FT=D&date=20120419&CC=WO&NR=2012050468A1&KC=A1](http://worldwide.espacenet.com/publicationDetails/biblio?DB=EPODOC&II=0&ND=3&adjacent=true&locale=en_EP&FT=D&date=20120419&CC=WO&NR=2012050468A1&KC=A1)

## ▶ INSTALLATION AND METHOD FOR HARNESSING WAVE ENERGY USING GYROSCOPE

EP20060820010	<b>País:</b> España	<b>Solicitante:</b> OSEANTEC ENERGIAS MARINAS, S.L	<b>Fecha:</b> 2006/10/03
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**Inventores:** RUIZ MINGUELA, JOSE, PABLO, ; ELORDUIZAPATARIETXE FADRIQUE, SABINO, ; HERRERO EIZMENDI, MARIA, ; LIRIA LOZA, PEDRO

**Resumen:** Installation for harnessing wave energy, comprising a floating structure (1) that comprises at least one gyroscopic device (5) with a flywheel (6) that can turn by the action of a motor (7) and a generator (10) configured so that when the gyroscopic device (5) is in use, said flywheel (6) is subjected to a pitching torque caused by the motion of the waves that feeds the generator (10), wherein the installation also comprises: means (23, 44) for controlling the motor (7); means (24, 45) for controlling the generator (10); a floating device (25) for capturing data on the waves; means for transmitting the data captured by the data-capturing floating device (25) and for receiving said data in the floating structure (1); a control unit (16) that calculates at least one parameter applicable by the means (23, 44) for controlling the motor (7) and at least one parameter applicable by the means (24, 45) for controlling the generator (10).

**Enlace:** [http://worldwide.espacenet.com/publicationDetails/biblio?DB=EPODOC&II=0&ND=3&adjacent=true&locale=en\\_EP&FT=D&date=20090902&CC=EP&NR=2096298A1&KC=A1](http://worldwide.espacenet.com/publicationDetails/biblio?DB=EPODOC&II=0&ND=3&adjacent=true&locale=en_EP&FT=D&date=20090902&CC=EP&NR=2096298A1&KC=A1)

## ▶ WAVE ENERGY GENERATOR FOR HARVESTING KINETIC ENERGY OF WAVES AND TIDAL FLOW

GB20100019037	<b>País:</b> Gran Bretaña	<b>Solicitante:</b> DAVID BOWERMAN	<b>Fecha:</b> 2010/11/11
<b>Inventores:</b>	DAVID BOWERMAN		
<b>Resumen:</b>	<p>A wave powered generator comprises a buoyant housing (12, fig.2) having an entrance for receiving water from a portion of a wave and an outlet permitting the water to exhaust from the housing. In use the generator is tethered so that the entrance faces oncoming wave fronts. A float 20a, 20b is supported on the generator by a rigid arm 22 connected to the housing at a pivot 24, whereby an incident wave displaces the float, with respect to the structure. Energy is extracted from the wave by way of a flap 50 located between the entrance and outlet. A dog-leg connection is provided on the arm 22 and arranged to disengage in high seas and very strong winds, so as to avoid damage to the generator.</p>		
<b>Enlace:</b>	<a href="http://worldwide.espacenet.com/publicationDetails/biblio?DB=EPODOC&amp;II=0&amp;ND=3&amp;adjacent=true&amp;locale=en_EP&amp;FT=D&amp;date=20110518&amp;CC=GB&amp;NR=2475405A&amp;KC=A">http://worldwide.espacenet.com/publicationDetails/biblio?DB=EPODOC&amp;II=0&amp;ND=3&amp;adjacent=true&amp;locale=en_EP&amp;FT=D&amp;date=20110518&amp;CC=GB&amp;NR=2475405A&amp;KC=A</a>		

## ▶ AN INSTALLATION COMPRISING A WAVE POWER APPARATUS AND A SUPPORT STRUCTURE THEREFOR

MX20070012534	<b>País:</b> EE.UU.	<b>Solicitante:</b> WAVE STAR ENERGY APS	<b>Fecha:</b> 2007/10/09
<b>Inventores:</b>	PER RESEN STEENSTRUP		
<b>Resumen:</b>	<p>A wave power apparatus (302) includes a plurality of rotationally supported arms (322) , each of which carries a float (324) at its free end, so that a translational movement of the float caused by a wave results in rotation of the arm. The apparatus comprises power conversion means (128,130) for converting power transmitted from the wave to the arms into electric power, e.g. a hydraulic system. The plurality of apparatus is arranged in a row such that a wave passing the row of arms causes the arms to successively pivot with a mutual phase shift. Thereby, an even power output may be achieved, and the need for frequency converters may be reduced or eliminated. Preferably, each arm is connected to a hydraulic cylinder (328) of the hydraulic system, whereby a plurality of arms feed hydraulic medium into the hydraulic motor or motors through common hydraulic conduits (180).</p>		
<b>Enlace:</b>	<a href="http://worldwide.espacenet.com/publicationDetails/biblio?DB=EPODOC&amp;II=0&amp;ND=3&amp;adjacent=true&amp;locale=en_EP&amp;FT=D&amp;date=20071206&amp;CC=MX&amp;NR=2007012534A&amp;KC=A">http://worldwide.espacenet.com/publicationDetails/biblio?DB=EPODOC&amp;II=0&amp;ND=3&amp;adjacent=true&amp;locale=en_EP&amp;FT=D&amp;date=20071206&amp;CC=MX&amp;NR=2007012534A&amp;KC=A</a>		

## ▶ WAVE CATCHER

US20100851560	<b>País:</b> EE.UU.	<b>Solicitante:</b> DATO NO DISPONIBLE	<b>Fecha:</b> 2010/08 /16
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**Inventores:** BURTON JOHN ALAN

**Resumen:** The wave catcher is a wave energy converter comprising three wave energy capture devices: a wave catcher wheel driven by wave particle motion, a wave pressure differential system driven by wave height differential, and a wave amplifier enclosure driven by wave surge; and three auxiliary energy capture devices: wind rotor, water current rotor, and photovoltaic cells all driving a common turbine to generate electricity. It extracts multi-frequency, variable amplitude ocean wave spectral energy and operates on, near, or far from the shoreline. Floats and structure position and orient the wave catcher to take the most advantage of the incident waves.

**Enlace:** [http://worldwide.espacenet.com/publicationDetails/biblio?DB=EPODOC&II=0&ND=3&adjacent=true&locale=en\\_EP&FT=D&date=20120209&CC=US&NR=2012032444A1&KC=A1](http://worldwide.espacenet.com/publicationDetails/biblio?DB=EPODOC&II=0&ND=3&adjacent=true&locale=en_EP&FT=D&date=20120209&CC=US&NR=2012032444A1&KC=A1)

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