

1) Family number: 56091037 (CO6880009U)

© PatBase

Title: SUSTRATO PARA EL ASENTAMIENTO DE LARVAS DE CORAL SUBSTRATE FOR SETTLEMENT OF LARVAE OF CORAL (Machine translation)

Abstract: Source: CO6880009U [ES] [Source: Claim 1] *** WARNING: OCR DATA - MAY BE INCOMPLETE *** *** Please email the Publication Number to Patbase@rws.com of any affected text for review ***

Reivindicaciones: N degrees folios: ? Reivindicaciones 0 Dibujos y/o figuras 0 Resumen. ? Documento de Prioridad. ? Traduccion del documento de prioridad. ? Certificado de deposito de material biologico si fuera el caso. 8. ? Listado de secuencias de nucleotidos y/o aminoacidos en forma digital si fuera el caso. 9. ? Arte final 12 x 12. 10.0 Anexo formato digital. Documentacion Juridica 11.0 Poderes, si fuera el caso. 12. 0 Documento que legalmente pruebe la cesion del inventor al solicitante o a su causante. 13. ? Copia del contrato de acceso de recursos geneticos o productos derivados, o certificado o numero de registro, si fuera el caso. 14. ? Copia de la licencia o autorizacion de conocimientos tradicionales, o certificado o numero de registro, si fuera el caso. 15. Reduccion de tasas Micro, pequenas o medinas empresas ? Copia simple de la declaracion de renta del ano inmediatamente anterior, o en su defecto prueba documental idonea. ? Documento de constancia de cumplimiento con lo establecido en la ley 905 de 2004. Universidades publicas o privadas 0 Copia acto de reconocimiento institucional emitido por el Ministerio de Educacion Entidades sin animo de lucro ? Copia de registro vigente en Camara de comercio. ? Hoja de informacion complementaria. ? Otros, especificar 16. B Comprobante de pago de la tasa de presentacion de la solicitud. 17. ? Comprobante de pago por reivindicacion de prioridad. 18. ? Comprobante de pago de la tasa por concepto de excedente de palabras en la publicacion. 19. ? Comprobante de pago por reivindicacion adicional a 10. PI02-F01 vr7 (2012-04-19) Descripcion Titulo: Sustrato para el asentamiento de larvas de coral Resumen. El objetivo de la presente invencion es medir el asentamiento de larvas de coral en ambientes arrecifales someros y su posterior analisis en laboratorio de la informacion recolectada. Para ello se desarrollo un sustrato ceramico estandarizado de textura similar a las estructuras calcareas de los corales, cuya forma particular permite: mantener vivas las especies de coral asentadas en el, adaptarse tanto a la anatomia de la mano del investigador como a instrumentos de analisis de muestras biologicas en laboratorio. Sector Tecnologico. Esta invencion esta relacionada con un sustrato de forma especial de los que se utilizan para medir el asentamiento de las larvas de coral en ambientes arrecifales. Tecnologia Anterior. Es ampliamente conocida la utilizacion de materiales como: el vidrio (Hodgson 1990); el poliestireno (Van Moorsel 1988), el cemento (Hunte and Wittenberg 1992), la ceramica (Petersen and Schuhmacher 2004), y sustratos como el del mismo esqueleto de coral (Babcock and Davies 1991), se han utilizado como experimentos para estudiar la biologia y el asentamiento de los corales. Las superficies rugosas presentes en los esqueletos de coral y en los materiales ceramicos han resultado ser los mas atractivos para el asentamiento de larvas de coral (Harriott and Fisk 1987). Algunos de los sustratos ceramicos disponibles en el mercado no estan disenados para evitar danar a los reclutas juvenes de coral y algunos necesitan de accesorios para evitar que se vuelquen en el agua (Petersen and Tollrian 2001). Aunque hay sustratos estandarizados disponibles en el mercado y producidos para atender las necesidades de los proyectos de restauracion que atraen y controlan el asentamiento de larvas (Petersen and Schuhmacher 2004), no existen actualmente sustratos ceramicos estandarizados para el estudio del asentamiento y reclutamiento de larvas de coral que se adapten a las condiciones de analisis de laboratorio mediante la estereoscopia, ni que conserven vivas las especies asentadas en el, ni que presenten texturas similares a los esqueletos de coral, tampoco que contengan bordes que benefician la manipulacion para algunos propósitos investigativos. Descripcion de la Invencion. El sustrato perfeccionado que la invencion propone ha sido concebido de tal manera que protege adecuadamente a los reclutas juvenes fijados en el debido a que presenta superficies en alto y bajo relieve. Con un espesor y area estandar es facilmente adaptable a la anatomia de la mano del investigador, permitiendo ademas que ingrese facilmente en la platina del estereoscopio donde se analizan las muestras biologicas eliminando asi cualquier tipo de accesorio para ser manipulado. Otra de las ventajas que aporta la invencion es que gracias a la acertada seleccion del material ceramico se garantiza el asentamiento para la toma de muestra de larvas de coral, ya que la ceramica presenta una composicion quimica similar a las estructuras calcareas de los corales lo cual es un atractivo en la fijacion de las larvas dada su geometria particular. En el interior del sustrato se dispone un area definida que permite realizar conteos de especies con fines de estudio. Presenta texturas similares a los esqueletos calcareas de coral tanto en tamaño como en Proporción. La textura de la zona interior es fruto del grabado identico de su referente natural; la zona interior tambien delimita el asentamiento de las larvas permitiendo su concentracion y ademas presenta superficies en alto y bajo relieve con bordes lisos y espesor controlado para su manipulacion tanto en laboratorio como en campo. Es una virtud que a pesar de su bajo espesor, se logren desarrollar superficies en alto y bajo relieve permitiendo asi mantener vivas las especies de coral que se fijen en el interior del sustrato ya que es posible contener agua necesaria para mantenerlas. Tambien este alto y bajo relieve presenta un borde externo perimetral que le permite ajustarse a otros dispositivos, para que en las actividades de transporte e inmersión los sustratos se mantengan seguros. Para permitir una adecuada codificación en el proceso de trabajo de campo y posterior analisis de la informacion recolectada, la invencion dispone de codigos de color en los bordes para su descripcion y facil reconocimiento. Empleando esmaltes horneables de distintos colores, se logra una superficie lisa que evita la fijacion de larvas en esa zona, lo cual permite que en su manipulacion los organismos vivos no se fijen, que las superficies esmaltadas no sufran desgaste por el rozamiento evitando generar migracion de particulas. Figura 5. Vista lateral de una variante del sustrato sin bandeja para el conteo de larvas de coral Figura 6. Vista superior de una variante del sustrato para el asentamiento de larvas de coral sin bandeja A la vista de estas figuras puede observarse como el sustrato esta estructurado a partir de una base cuadrada (1) modular y estandar que facilita un optimo apilamiento, manipulacion y disposicion espacial, cuyo perimetro externo presenta un reborde (3) que sirve como elemento estructural deslizable que permite el ensamblaje en un acuario especial para su disposicion. Hacia el interior del reborde (3) se encuentra un alto relieve (4) que sirve de borde para la bandeja de contencion de agua (5) que permite mantener sumergidas en su medio a las larvas que se fijen. En la bandeja de contencion de agua (5) se encuentra una base (6) donde puede disponerse de texturas similares a las especies de coral que se esten estudiando. Reivindicaciones. 1. Sustrato para el asentamiento de larvas de coral caracterizado por estar compuesto de una base cuadrada (1) modular en la que se configura un reborde (3) que a su vez sirve como estructura circundante del alto relieve (4) los cuales determinan el area de contencion de agua (5) en cuya base (6) son grabadas texturas similares a las especies de coral. 2. Sustrato para el asentamiento de larvas de coral, segun la reivindicacion 1, caracterizado porque la base del sustrato (6) presenta texturas identicas a las especies de coral que pueden grabarse tambien en la cara posterior de la base (1). 3. Sustrato para el asentamiento de larvas de coral, segun la reivindicacion 1, caracterizado porque presenta un reborde (3) que le permite ajustarse a dispositivos estandar de ensamblaje. 4. Sustrato para el asentamiento de larvas de coral, segun la reivindicacion 1, caracterizado porque el reborde (3), la base (5) y el alto relieve (4) forman una bandeja de contencion de agua (5) que permite mantener vivas las especies de coral. i3 www.utadeo.edu.co Personeria Juridica No. 2613/1959 Minjusticia Universidad de Bogota JORGE TADEO LOZANO SEDE PRINCIPAL Carrera 4 No. 22-61 PBX: 2427030 - 3360066 FAX: 2826197 A.A. 34185 BOGOTA, D.C. - COLOMBIA Senores: SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO Delegatura para la Propiedad Industrial Direccion de Nuevas Creaciones E.S.D. CECILIA MARIA VELEZ WHITE, identificada con cedula de ciudadanía numero 32.489.688, con domicilio en la ciudad de Bogota D.C., Rectora y Representante Legal de la FUNDACION UNIVERSIDAD DE BOGOTA JORGE TADEO LOZANO, Institucion de Educacion Superior, de caracter privado y utilidad comun, sin animo de lucro, con domicilio principal en Bogota D.C., con personeria juridica reconocida mediante Resolucion numero 2613 de 14 de agosto de 1959 expedida por el Ministerio de Justicia, reconocida como Universidad mediante Decreto 1297 del 30 de mayo de 1964 expedido por el Gobierno Nacional, identificada con Nit. 860.006.848- 6, segun consta en el certificado emitido por el Ministerio de Educacion Nacional, por

medio del presente escrito otorgo poder especial, amplio y suficiente al Abogado DIEGO JAVIER MUNOZ LANCHEROS, domiciliado en esta misma ciudad, identificado con cedula de ciudadanía numero No. 79.955.281 expedida en Bogota, abogado en ejercicio y titular de la tarjeta profesional numero 147.640 del Consejo Superior de la Judicatura, para que adelante todos los tramites en esa Superintendencia, relacionados con la SOLICITUD DE PATENTE DE MODELO DE UTILIDAD de los productos denominados "Acuario para el Cultivo Artificial de Corales", "Trampas de Sedimento y Asentamiento de Larvas de Coral en Ambientes Arrecifales Someros" y "Sustrato para el Asentamiento de Larvas de Coral", a nombre de la Fundacion Universidad de Bogota Jorge Tadeo Lozano, teniendo en cuenta, los respectivos contratos de cesion de derechos patrimoniales, suscritos por los autores y la Institucion que represento, y segun los terminos y condiciones que se indican en el formulario respectivo. El abogado DIEGO JAVIER MUNOZ LANCHEROS, queda revestido de las facultades señaladas en el articulo 70 delCodigo de Procedimiento Civil, y en especial, las de sustituir, desistir, reclamar, recibir, notificarse de las decisiones a que haya lugar, y las demas necesarias para llevar a cabo el tramite correspondiente. W * Atentamente, ¿ Asunto: Poder Tramite: Solicitud de patentes de Modelo de utilidad i | C.C. 32.489.688 de Medellin Rectora y Representante Legal C.C. No. 79.955.281 de Bogota T.P. 147.640 del C.S. de la J DILIGENCIA DE RECONOCIMIENTO 6n la Ciudad de Bogota D.C. a de_i T- _d* ZoTC Comparecio ante la Notada Primera de! Circulo do *k>|f" Coal* MciVVo UQlet OJhv4e..{ Quien se identifico con la Cedula ua CA Numero: 34 fe 8 5 UdoJUrñ expedida en_ y Declaro que la firma y huella cue osrocor. urente documento son y que el contenido dpi mismo es cierta. ./-SE? El deoiaara.0VNKIAI>K/IVI; v' vesti/ mam DEL CIRCULO DE BOGOTA 003913575 ynt3M*M (OTJtOstf ' CONTRATO DE CESION DE DERECHOS PATRIMONIALES DE AUTOR Entre LA FUNDACION UNIVERSIDAD DE BOGOTA JORGE TADEO LOZANO, entidad sin animo de lucro, de Educacion Superior, con personeria juridica reconocida mediante Resolucion No. 2613 del 14 de agosto de 1959, representada en este acto por la Dra. CECILIA MARIA VELEZ WHITE, identificada con cedula de ciudadanía numero 32.489.688, en calidad de Rectora y Representante Legal, Institucion que para efectos del presente contrato se denominara EL CESIONARIO, por una parte, y por la otra, LEONARDO VASQUEZ MIRANDA, identificado con cedula de ciudadanía numero 80.406.151 de Tabio (Cund), y FERNANDO ALBERTO ALVAREZ ROMERO, identificado con cedula de ciudadanía numero 79.654.905 de Bogota, quienes para efectos de este contrato se denominaran LOS CEDENTES, acordamos suscribir el presente contrato de cesion de derechos patrimoniales de autor, el cual se registra por la Ley 23 de 1982, Ley 44 de 1993, Ley 1450 de 2011, Ley 1520 de 2012, Decreto 019 de 2012, y demas disposiciones legales que regulan la materia en Colombia y en especial, por las siguientes clausulas: PRIMERA. OBJETO: A traves de este documento, LOS CEDENTES manifiestan que de manera voluntaria, en su calidad de co-autores, efectuan la cesion a favor de EL CESIONARIO, de los derechos patrimoniales de autor respecto del producto (MODELO DE UTILIDAD) denominado "SUSTRATO PARA EL ASENTAMIENTO DE LARVAS DE CORAL", generado con ocasion de la ejecucion de la investigacion denominada "Proyecto piloto para el desarrollo de placas ceramicas, sistema de transporte, inmersion y disposicion para el cultivo artificial de corales en el Parque Nacional Natural Corales del Rosario y San Bernardo (Colombia)", fases I y II, cod. 293-06-10 de la Convocatoria Interna No. 06 de 2010 y Cod. 362- 07-10 de la Convocatoria Interna No. 07 de 2010, efectuada por la Fundacion Universidad de Bogota Jorge Tadeo Lozano. SEGUNDA. DETERMINACION Y ALCANCE DEL OBJETO: Los derechos patrimoniales de autor, que a traves de este CONTRATO se ceden, incluyen la facultad y el derecho a favor de EL CESIONARIO, de transformar, reproducir, comunicar publicamente y distribuir la obra o producto respectivo, tales prerrogativas, son otorgadas sin ninguna limitacion, en cuanto a territorio se refiere. Asi mismo, se deja constancia que esta cesion, se confiere por todo el termino de duracion establecido en la legislacion de derechos de autor vigente en Colombia. TERCERA. REMUNERACION: La contraprestacion economica recibida por LOS CEDENTES, por la realizacion de la obra y del producto objeto de esta CESION, esta incluida en lo pactado en el Contrato Individual de Trabajo a Terminio Fijo a un (1) ano, de 26 de enero de 2009, suscrito entre LEONARDO VASQUEZ MIRANDA, identificado con cedula de ciudadanía numero 80.406.151 de Tabio (Cund), y EL CESIONARIO, y en el Contrato Individual de Trabajo a Terminio Fijo a un (1) ano, de 17 de enero de 2008, suscrito entre FERNANDO ALBERTO ALVAREZ ROMERO, identificado con cedula de ciudadanía numero 79.654.905 de Bogota, y EL CESIONARIO, CUARTA. DERECHOS MORALES: La cesion de los derechos patrimoniales señalados en la clausula primera de este contrato, no implica la cesion de los derechos morales de autor respecto de la obra y producto denominada "ACUARIO PARA EL CULTIVO ARTIFICIAL DE CORALES", dado que estos derechos son irrenunciables, imprescriptibles, inembargables e inalienables. Por tanto, los mencionados derechos seguiran radicados en cabeza de LOS CEDENTES. ' QUINTA. ELABORACION Y RESPONSABILIDAD: LOS CEDENTES manifiestan que el producto mencionado en la clausula primera del presente contrato, es original y fue realizado sin violar o usurpar derechos de autor de terceros, siendo claro que el producto es de su exclusiva autoria. En caso de presentarse cualquier tipo de reclamacion, requerimiento, exigencia, reivindicacion o accion, por parte de terceros, Pagina 1 de 2 respecto de los derechos de autor sobre el producto denominado "ACUARIO PARA EL CULTIVO ARTIFICIAL DE CORALES", LOS CEDENTES asumiran toda la responsabilidad, y saldran en defensa de EL CESIONARIO, ya que este ultimo actua como tercero de buena fe. SEXTA. EXCLUSIVIDAD: LOS CEDENTES manifiestan que los derechos de autor sobre el producto mencionado en la clausula primera, no han sido cedidos con antelacion, y que sobre ellos, no pesa ningun gravamen ni limitacion en su uso o utilizacion. SEPTIMA. CLAUSULA COMPROMISORIA: LAS PARTES, esto es, LOS CEDENTES y EL CESIONARIO, acuerdan que en el evento en que surja alguna controversia o diferencia relativa a este CONTRATO, acudirian a mecanismos de arreglo directo para su solucion, tales como la negociacion directa, la conciliacion, la transaccion, la mediacion o la amigable composicion. En caso de no llegarse a una solucion por la via directa, despues de un plazo de tres (3) meses siguientes a la comunicacion de alguna de las partes para convocar al arreglo directo, a traves de los M.A.S.C. mencionados, las diferencias se resolveran por un Tribunal de Arbitramento, el cual sera administrado por el Centro de Arbitraje y Conciliacion de la Camara de Comercio de Bogota, de acuerdo con las siguientes regias: a) El tribunal estara integrado por tres arbitros, salvo que las partes acuerden que el tribunal estara integrado por un solo arbitro. Los arbitros seran designados por las partes de comun acuerdo. En caso de no hacerlo dentro de los diez dias siguientes a la solicitud de una de las partes, los arbitros seran designados por el Centro de Arbitraje y Conciliacion de la Camara de Comercio de Bogota, a solicitud de cualquiera de las partes, b) El tribunal decidira en derecho, c) El tribunal se sujetara al reglamento del Centro de Arbitraje y Conciliacion de la Camara de Comercio de Bogota, d) Los honorarios de los arbitros estaran a cargo de la parte vencida. En senal de aceptacion, se firma el presente documento en dos (2) ejemplares del mismo contenido y valor, en Bogota D.C. a los EL CESIONARIO, A Rectora y Representante Legal Pagina 2 de 2 Calle 43 No. 57-14 Centro Administrativo Nacional, CAN, Bogota, D.C. Colombia Conmutador: (057) (1) 222 2800 - Fax (057) (1) 222 4953 www.mineduacion.gov.co PROSPERIDAD IPARA TODOS Esta institucion de educacion superior esta sujeta a la inspeccion y vigilancia por el Ministerio de Educacion Nacional. De conformidad con lo establecido por la Ley 962 de 2005, los actos de registro aqui certificados quedan en firme cinco (5) dias habiles despues de la fecha de inscripcion, siempre que no sean objeto de recursos. El presente documento electronico tiene validez conforme a lo dispuesto en la Ley 527 de 1999, el Decreto 1747 de 2000 y las demas normas que los complementen, modifiquen o reemplacen. Para verificar la autenticidad del presente certificado o ver el documento electronico, ingrese a <https://vumen.mineduacion.gov.co/VUMEN/>, Consultar Certificado y digite el numero de radicado. Se expide la presente certificacion en Bogota D.C. a los 25 dias del mes de Junio de 2013, por solicitud de UNIVERSIDAD JORGE TADEO LOZANO. Atentamente, JUAN GUILLERMO PLATA PLATA Subdirector de Inspeccion y Vigilancia Calle 43 No. 57-14 Centro Administrativo Nacional, CAN, Bogota, D.C. Colombia Conmutador: (057) (1) 222 2800 - Fax (057) (1) 222 4953 www.mineduacion.gov.co industria y (,)omorcio SUPERINTENDENCIA Espacio reservado para el adhesivo de radicacion DIRECCION DE NUEVAS CREACIONES FORMULARIO DE REDUCCION DE TASAS 1. Identificacion del Tramite | 1 PATENTE DE INVENCION PATENTE DE MODELO DE UTILIDAD [] Examen de Patentabilidad | | Tasas de Mantenimiento 2. BENEFICIARIO N o m b r e : ftiunnrrnn] Ui/i iitftfOf o Direccion: Cgb 4 £ Z2~e\ uSOJ-? /)/f. 2/? Telefono: Z -42.9030 SK-f- //)?E - Nacionalidad o Domicilio: rolouglia_____ Ciudad: (goiOTW UO IDENTIFICACION I I C.C. ? C.E. CS NIT I I Otro En caso de ser una persona natural y carecer de medios economicos y por tanto lo aplique la reduccion de tasas a la que se refiere la resolucion vigente en tarifas, debe firmar la presente solicitud bajo la gravedad de juramento. 3. Anexos Persona Natural Persona Juridica ~fv/UDI\C(d'fij IJmieueZSQid 1)6 Qcto'O'ia jotof r/EP<fo Nombre o denominacion / Nombre o razon social Tipo de empresa Micro I 1 Pequena dU Documento de identificacion: C.C. d] C.E.di NIT. Mediana dH Otra [XI Qtro] | Numero: SbO-ODCi and ~fS'- Micro, pequenas y medianas empresas | |Copia simple de la declaracion de renta del ano inmediatamente anterior, 0 en su defecto prueba documental idonea. | | Documento de constancia de cumplimiento con lo establecido en la ley 905 de 2004 Universidades publicas 0 privadas i J Universidad publica I XI Universidad privada Copia acto de reconocimiento institucional emitido por el Ministerio de Educacion. Entidades sin animo de lucro I I Copia de registro vigente en Camara de comercio.. I | Hoja de informacion complementaria. I I Otros, especificar Nacionalidad/Pais de constitucion Direccion y domicilio del titular epa 4. Z >~ /~ 2/i Direccion electronica No. Fax Numero telefonico dhca/Ofj.vuJuciQ ijrjfceto. e<!'>~} c0 u-zs ~/U7 4. Firma D\epo J uevm /16/fo? Nombre del Firmante 9=7. 28 1 r. » V Firma TP. Nj. C57 x.r.... Tarieta Profesional. PI02-F07 vr2 (2012-04-19) fie Industria y Comercio SUPE-R: INTE N D E N C 1 A PLANILLA DE RADICACION - DIGITALIZACION DIARIA RELACION DE ANEXOS Dependencia: 2d 2o Fecha: / QE?/ 7-6. / AAAA MM DD Recorrido: J? Tipo de Radicacion: Entrada: Salida: ? Traslado: ? Convenio:

? Radicador: Planilla: ID No. Radicacion Consecutivo Item 1 13 - Zai 6 a - O 1- 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 Item Unidad de Conservacion 1 Bolsa 2 Caja 3 Libro 4 Sobre 5 Tomo 6 Otro Item Soporte Documental X CD 8 Disquete 9 DVD 10 Folleto 11 Foto 12 Periodico 13 Plano 14 Publicacion Periodica 15 USB 16 Otro Observaciones: /CrOQr>r o LISTA DE CHEQUEO ADMISION A TRAMITE - NUEVAS CREACIONES PATENTE DE INVENCIÓN MODELO DE UTILIDAD Art 33 Decision 486/DO w z Indicación que se solicita una patente. Datos de identificación del solicitante o de la persona que presenta la solicitud Descripción de la invención Dibujos de ser estos pertinentes ' Comprobante de #ago de las tasas establecidas (De ser el caso formato de descuento) Completa ' y\ ' ' Incompleta [[PATENTE DE INVENCIÓN PCT D MODELO DE UTILIDAD PCT CU Art.33 Decision 486/00, Circular Unica ? Indicación que se solicita una PCT ' ? Copia de la solicitud en español, tal como fue presentada Inicialmente (capítulo descriptivo, reivindicatorio, resumen) ! ? Dibujos de ser estos pertinentes ? Comprobante de pago de las tasas establecidas (de ser el caso formato de descuento) Completa [| - Incompleta [j DISEÑO INDUSTRIAL Q ` (Art. 119 Decision 486/00) ? ? ? ? Indicación que se solicita Diseño industrial . * „ Datos de Identificación del solicitante o de la persona que presenta la solicitud Representación grafica y fotografica del Diseño industrial o muestra del material que incorpora el diseño ' Comprobante de pago de las tasas establecidas Completa | | | Incompleta | | ESQUEMA DE TRAZADO [| (Art. 92 Decision 486/00) |" j Indicación que se solicita un esquema de trazado |..| Datos de identificación del solicitante o de la persona que presenta la solicitud- I I Representación grafica de un esquema de trazado | j Comprobante de pago de las tasas establecidas • | Completa [[| Incompleta | j SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO. ililililil Act! 411 PRESENTACION Folios: 19 =08 (2009-11-18) 1 2 ////////////////77> SECCION E-E ESCALA 1: 1 Figura. 2 3 Figura. 3 4 5 V Figura. 5 6 y Figura. 6 7 Descripción Titulo: Sustrato para el asentamiento de larvas de coral **Machine translation:** [Source: Claim 1] *** **WARNING: OCR DATA - MAY BE INCOMPLETE *** ** Please email the Publication Number to Patbase@rws.com of any Affected text for review ***** Claims degrees N pages: 0 Drawings claims and / or figures 0 Summary. ? Priority document. ? Translation of the priority document. ? Certificate of deposit of biological material if necessary. 8.? List of nucleotide and / or amino acids in digital form if necessary. 9.? Final art 12 x 12. 10.0 Annex digital format. Documentation Juridica 11.0 Powers, if any. 12. 0 document that legally proves the assignment from the inventor to the applicant or assignee. 13.? Copy of the contract of access to genetic resources or derivatives or certificate or registration number products, if any. 14.? Copy of the license or authorization traditional or certificate or registration number knowledge, if any. 15. Rate Reduction Small or sized businesses? Copy of the statement of income of the previous year, or failing idonea documentary evidence. ? Document evidence of compliance with the provisions of the law 905 of 2004. public or private universities 0 Copy institutional act of recognition issued by the Ministry of Education non-profit entities? Copy of current registration chamber of commerce. ? Supplementary Information Sheet. ? Other, specify 16. B Proof of payment of the filing fee for the application. 17.? Proof of payment priority claim. 18.? Proof of payment of the fee for surplus concept of words in the publication. 19.? Proof of payment for 10 additional claims. PI02-F01 VR7 (2012-04-19) Title Description: Substrate for the settlement of coral larvae Summary . The aim of the present invention is to measure the settlement of coral larvae in shallow reef environments and subsequent laboratory analysis of the collected information. To this end, developed a standardized ceramic substrate similar to limestone structures of coral texture, whose particular shape allows: keeping alive coral species settled in, accommodate both the anatomy of the hand of the researcher as analysis tools biological samples in the laboratory. Sector Tecnológico. This invention relates to a substrate of specially used to measure larval settlement coral reef environments. Previous Technology. It is widely known to use materials such as glass (Hodgson 1990); polystyrene (Van Moorsel 1988), cement (Hunte and Wittenberg 1992), ceramics (Petersen and Schuhmacher 2004) and the same substrates as the coral skeleton (Babcock and Davies 1991) have been used as experiments to study the biology and settlement of corals. Rough surfaces present in coral skeletons and ceramic materials have proven to be the most attractive for the settlement of coral larvae (Harriott and Fisk 1987). Some of the ceramic substrates available on the market are not designed to prevent damage to young recruits coral and some accessories need to prevent tipping in water (Petersen and Tollrian 2001). Although no standardized commercially available substrates and produced to meet the needs of restoration projects that attract and control larval settlement (Petersen and Schuhmacher 2004), no standardized ceramic substrates for the study of larval settlement and recruitment of currently available coral that suit the conditions of lab work using stereoscopy, or to keep alive the species living in or having similar to coral skeletons textures, edges containing no benefit manipulation for some research purposes. description of the invention. The substrate perfected the invention has been conceived in such a way that adequately protects young recruits in the set due to having surfaces in high and low relief. With a standard thickness and area it is easily adaptable to the anatomy of the hand of the researcher, besides allowing the easily enter the stereoscope stage where biological samples are analyzed thus eliminating any type of accessory to be manipulated. Another advantage provided by the invention is that thanks to the successful selection of ceramic material settlement for the sampling of coral larvae are guaranteed, since the ceramic has a chemical composition similar to the coral limestone structures which It is an attraction in the fixation of the larvae given their particular geometric. Inside the substrate a defined area that allows species counts for study are available. It presented similar textures to calcareous coral skeletons in size and in proportion. The texture of the interior is the result of identical recorded its natural referent; the interior also defines the settlement of larvae allowing their concentration and also has surfaces in high and low relief with smooth edges and controlled handling for both laboratory and field thickness. It is a virtue that despite their low thickness are achieved surfaces develop high and low relief thus allowing to keep alive coral species to be fixed inside the substrate as it may contain water needed to maintain them. Also this high and low relief presents a peripheral outer edge that allows you to adjust to other devices, so that transport activities and dipping the substrates are kept safe. To allow proper coding in the process of fieldwork and subsequent analysis of the information collected, the invention provides color codes at the edges for easy description and recognition. Using different color baking enamels, a smooth surface that prevents the fixing of larvae in that area, which allows its manipulation in living organisms are not fixed, that the enamel surfaces not suffer wear by friction it is achieved by preventing migration of generating particles. Figure 5. Side view of a variant of the substrate without counting tray coral larvae Figure 6. Top view of a variant of the substrate for coral larvae settlement without tray In view of these figures can be seen as the substrate is structured from a square base modular (1) standard that facilitates optimum stacking, manipulation and spatial arrangement, whose outer perimeter has a flange (3) which serves as a sliding structural element that allows assembly in a special tank for disposal. Into the rim (3) is a high relief (4) serving tray edge for containment of water (5) that keeps you immersed in the medium to set larvae. In the water containment tray (5) is a base (6) which can be arranged similar to the species of coral that are being studied textures. Claims. 1. Substrate for the settlement of coral larvae characterized by being composed of a modular square base (1) in which a flange (3) which in turn serves as surrounding embossed structure (4) which determine the area is configured containment of water (5) at the base (6) are recorded similar textures coral species. 2. Substrate for the settlement of coral larvae, according to claim 1, wherein the base substrate (6) has identical to coral species that can be recorded also on the back face of the base (1) textures. 3. Substrate for the settlement of coral larvae of claim 1, characterized by a flange (3) which allows it to conform to standard assembly devices. 4. Substrate for the settlement of coral larvae of claim 1, wherein the flange (3), the base (5) and the high relief (4) form a water containment tray (5) which keeps alive the species coral. 3 www.utadeo.edu.co Legal Status No. 2613/1959 Minjusticia University of Bogota Jorge Tadeo Lozano HEADQUARTERS Carrera 4 No. 22-61 PBX: 2427030-3360066 Fax: 2826197 AA 34185 BOGOTA, DC - COLOMBIA Gentlemen, Superintendent of Industry and Trade Delegation for Industrial Property Address New Creations ESD CECILIA MARIA VELEZ WHITE, identified with citizenship identification card of number 32489688, residing in the city of Bogota DC, Rector and legal representative of the University of Bogota Jorge Tadeo Lozano, institution of higher education, and private character FOUNDATION common utility, nonprofit, domiciled in Bogota DC, with legal personality recognized by Resolution number 2613 of August 14, 1959 issued by the Ministry of Justice, known as University by Decree 1297 of May 30, 1964 issued by the National Government, identified with Nit. 860.006.848- 6, as stated in the certificate issued by the Ministry of National Education, by means of this document I give special, ample and sufficient Power of Attorney DIEGO JAVIER MUNOZ LANCHEROS, residing in this city, identity card number of citizenship No. 79,955,281 issued in Bogota, practicing lawyer and holder of the professional card number 147,640 of the Superior Council of the Judiciary, to forward all the paperwork in the Superintendency related PATENT APPLICATION FOR UTILITY MODEL products called "Aquarius for Artificial coral farming", "sediment traps and larval settlement of Shallow Coral Reef Environments" and "substrate for the settlement of coral larvae", on behalf of the Foundation University of Bogota Jorge Tadeo Lozano, taking into account the respective contracts of assignment of property rights, signed by the authors and the institution that I represent, and on the terms and conditions set forth in the respective form. The lawyer DIEGO JAVIER MUNOZ LANCHEROS, is coated to the powers indicated in article 70 of the Code of Civil Procedure, and in particular, to replace desist, claim, receive, notified of the decisions that may be required, and other necessary to carry out the necessary formalities. W * Sincerely, cSubject: Power Tramite: Application for utility model patents i | CC Medellin 32,489,688 Chancellor and Legal Representative CC No. 79,955,281 Bogota T.P. 147,640 of C. S. J identification parade 6n Bogota DC to de_i T _d * ZoTC appeared before the First noticed! Circulo do * k and gt; | f "coalt * MciVVo Uqlet QJhv4e.. {who identified with the Cedula ua CA

Number. 34 Faith May 8 UdoJurn issued En_ and declare that the signature and fingerprint cue osrocor burning paper are and that the content dpi./-SE The same is true deoiara.0VNKIAI and gt;? K / IVI; v 'Vesti / mam of the Bogota 003,913,575 ynt3M "M (OTJtoStf) CONTRACT OF ASSIGNMENT OF RIGHTS COPYRIGHT Among HERITAGE COLLEGE FOUNDATION JORGE DE BOGOTA Tadeo Lozano, nonprofit institution of higher education, with legal personality recognized by Resolution No. 2613 of August 14, 1959, herein represented by Dr. CECILIA MARIA VELEZ WHITE, identified with citizenship cedula number 32,489. 688, as Rector and legal representative institution for the purposes of this contract ASSIGNEE be known, on the one hand, and on the other, LEONARDO MIRANDA VASQUEZ, of identity card number 80406151 citizenship Tabio (Cundinamarca) and ALBERTO ALVAREZ FERNANDO ROMERO, identity card of citizenship number 79654905 Bogota, who for purposes of this contract will be denominated the Sellers agree to sign this contract for the transfer of economic rights, which are governed by Law 23 1982, Law 44 of 1993, Act 1450 of 2011, Act 1520 of 2012, Decree 019 of 2012 and other laws governing the matter in Colombia and in particular the following clauses: FIRST. PURPOSE: Through this document the Sellers voluntarily state that, in its capacity as co-authors, carry out the assignment in favor of the assignee of the economic rights for the product (utility model) called "substrate for the settlement of coral larvae ", generated during the execution of research called" pilot development project of ceramic plates, transport system, immersion and disposition for the artificial cultivation of corals in the Natural National Park Corales del Rosario and San Bernardo (Colombia) ", phases I and II, cod. 293-06-10 of the internal notice No. 06 of 2010 and Cod. 362- 07-10 of Internal Call No. 07 of 2010, conducted by the Foundation University of Bogota Jorge Tadeo Lozano. TWO. DETERMINATION AND SCOPE OF OBJECT: The economic rights, that through this contract are assigned, including the power and right in favor of the assignee, transform, reproduce, publicly display and distribute the work or concerned product, such prerogatives are granted without any limitation as to territory is concerned. Likewise, it is noted that this assignment is conferred throughout the term of the provisions of copyright legislation in force in Colombia. THIRD. Remuneration: The economic consideration received by the Sellers, for the realization of the work and the product under this assignment, is included in the agreement in the Individual Contract Fixed Term Work to one (1) year, 26 January 2009, signed between MIRANDA LEONARDO VASQUEZ, identity card of citizenship number 80406151 Tabio (Cundinamarca), and the transferee, and the Individual Contract Fixed Term Work to one (1) year, from January 17, 2008 signed between ALBERTO ALVAREZ FERNANDO ROMERO, identity card of citizenship number 79654905 Bogota, and the assignee, FOURTH. MORAL RIGHTS: The transfer of economic rights outlined in the first clause of this contract does not imply the assignment of moral copyright in the work and product called "AQUARIUM FOR GROWING ARTIFICIAL CORAL", since these rights are inalienable, imprescriptible, infeasible and inalienable. Therefore, those rights will continue residing in head of the Sellers. 'QUINTA. PREPARATION AND LIABILITY: THE LICENSORS state that the product mentioned in the first clause of this contract, is original and was made without violating copyright or usurp third parties, being clear that the product is your sole responsibility. In the event of any claim, request, demand, demand or action, by third parties, Page 1 of 2 for copyright on the product called "AQUARIUM FOR GROWING CORAL ARTIFICIAL" the Sellers will pay all responsibility, and will come out in defense of the transferee, as the latter acts as a third party in good faith. SIXTH. EXCLUSIVE: THE LICENSORS state that copyright on the product mentioned in the first clause, they have not been assigned in advance, and above them, does not weigh any lien or limitation on its use or utilization . SEVENTH. Arbitration clause: THE PARTIES, this is the Sellers and the transferee agree that in the event that any dispute or relative difference arising in this AGREEMENT, will attend mechanisms of direct settlement for their solution, such as direct negotiation, conciliation The transaction, mediation or amicable. If a solution is not reached by the direct route, after a period of three (3) days following the communication of any of the parties to convene the direct settlement through ADR months mentioned, the differences will be resolved by an arbitration tribunal, which will be administered by the Arbitration and Conciliation of the Chamber of Commerce of Bogota, according to the following regal: a) The court shall comprise three arbitrators, unless the parties agree that the tribunal shall consist of a sole arbitrator. The arbitrators shall be appointed by the parties by mutual agreement. Failure to do so within the next ten days at the request of a party, the arbitrators shall be appointed by the Arbitration and Conciliation of the Chamber of Commerce of Bogota, at the request of either party, b) court will decide in law, c) The court shall be subject to the regulations of the Arbitration and Conciliation of the Chamber of Commerce of Bogota, d) The fees of the arbitrators shall be borne by the losing party. In a sign of acceptance, this document is signed in two (2) copies of the same content and value, Bogota DC to the assignee, A Rector and Legal Representative Page 2 of 2 Calle 43 No. 57-14 National Administrative Center, CAN, Bogota, DC Colombia Switch: (057) (1) 222 2800 - Fax (057) (1) 222 4953 www.mineduacion.gov.co PROSPERITY FOR ALL This institution of higher education is subject to inspection and supervision by the Ministry of National Education. In accordance with the provisions of Law 962 of 2005, acts of registration here certificates are firm five (5) business days after the date of registration, provided they are not subject to resources. This electronic document is valid according to the provisions of Law 527 of 1999, Decree 1747 of 2000 and other rules that complement, modify or replace. To verify the authenticity of this certificate, or view the electronic document, enter https://vumen.mineduacion.gov.co/VUMEN/, Check Certificate and enter the number of filed. This certificate is issued in Bogota DC on the 25th day of June 2013, at the request of Jorge Tadeo Lozano University. Sincerely, Juan Guillermo Silver Silver Deputy Director of Inspection and Monitoring Calle 43 No. 57-14 National Administrative Center, CAN, Bogota, DC Colombia Switch: (057) (1) 222 2800 - Fax (057) (1) 222 4953 www.mineduacion.gov.co industry ('omorcio SUPERINTENDENCIA Space reserved for adhesive ADDRESS OF FILING FORM NEW CREATIONS REDUCTION PROCESSING FEES 1. Identification | 1 PATENT OF INVENTION PATENT UTILITY MODEL [] patentability examination | | Maintenance Fees 2. BENEFICIARY OMB re: ftuinnrinnj Ui / ? i ? tftfOf or Address: Cgb 4 ? Z2 ~ e \ uSOJ-? /) f. 2/? Phone: -42.9030 SK-f- Z // ? - nationality or domicile: rolougia_____ City: (UO goiOTW IDENTIFICATION II CC ? C.E. Another CS NIT II Should be a natural person and lack of funds and therefore not apply the fee reduction to which the resolution refers current rates, you must sign this application under oath. 3. Annexes Natural Person Legal Person ~ fv / UDi \ C (IJf d'IJmuezSQQid 1) 6 QctiO'ia jotof r / 'EP and It; fo DIRECTORS Name / Name and address of company Micro Type I 1 small dU identification: CC d] C.E.di NIT. Median dH Another [XI Qtro | | Number: SBO-ODC ? and ~ fS'- micro, small and medium enterprises | | Copy of the statement of income immediately preceding year, failing 0 idonea documentary evidence. | | Document evidence of compliance with the provisions of the law 905 of 2004 Public Private Universities 0 i J I XI University Private University publishes Copy institutional act of recognition issued by the Ministry of Education. Nonprofit entities II Copy current registration chamber of commerce.. I | Supplementary Information Sheet. I I Other, specify Citizenship / country of incorporation and address of the owner Address epa 4. ? Z and gt; / ~ 2 / i Fax No. E-Mail dheca'Ofj.vuJuciQ ? jrfceto phone number. and It; '- and gt;! ? c0 u-zs ~ / U7 4. Signature D \ epo J uevm / 16 / f? Signatory name 9- = 7. January 28 r. Signature ? V TP. N). C57 X...C... Tarieta Professional. PI02-F07 vr2 (2012-04-19) fie Industry and Trade Supe-R: INTE NDENC 1 A FILING FORM - Digitalization of annexes DAILY Unit: 2d 2nd Date: / QE / 7-6?. / YYYY MM DD Tour: J? Type of Filing: Check-out: Transfer:? Agreement:? Radicador: Form: Consecutive Item ID No. Filing January 13 - Zai 6 - O 1- 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 Item 1 Bag Conservation Unit 2 Safety 3 Book 4 out of 5 Tomo 6 Other Item Support Documentary X CD 8 Floppy September 10 DVD Handout 11 Photo 12 Periodico 13 Plano 14 Periodical is 15 USB 16 Other Observations: / CrOQr and gt; ro CHECKLIST admissibility - new creations PATENT OF INVENTION MODEL 'UTILITY Art 33 Decision 486 / DO wz indication that a patent is sought. data identifying the applicant or the person filing the request Description of the Drawings invention being these relevant 'Proof of # ago of the prescribed fees (If applicable discount format) Complete' and \ 'I' incomplete [[PATENT OF INVENTION PCT PCT UTILITY MODEL D CU Art.33 Decision 486/00, Circular Unica? Indication requested a PCT ' ? Copy of the application in Spanish, as it was initially presented (descriptive chapter, vindicating, summary)]? These drawings to be relevant? Proof of payment of the prescribed fee Complete (if applicable discount format) [] - Incomplete [j INDUSTRIAL DESIGN Q ' (Art 119 Decision 486/00.)???? Indication that industrial design is applied. • "Identification data of the applicant or the person filing the request photographic and graphic Representation of industrial design or sample of the material incorporating the design 'Proof of payment of the prescribed fee Complete | | Incomplete | | Layout design [| (Art 92 Decision 486/00.) | " J Indication that a layout-design is requested [.. | Data de'identificacion the applicant or the person filing the solicitude II graphical representation of a layout design | j Proof payment of the prescribed fee • | Complete [| Incomplete | j SUPERINTENDENT OF INDUSTRY AND TRADE PRESENTATION Folios liliilM Act 411: 19 = 08 (2009-11-18) 1 2 // / / | / / :! // / / / / / / / / / 77 and gt; EE SCALE SECTION I:... 3 Figure 1 Figure 2 3 4 5 V Figure 5 Figure 6 and July 6 Title Description: Substrate for the settlement of coral larvae

Classifications:
International (IPC 8-9): A01K61/00 (Advanced/Invention)
CPC: Y02A40/81

Family:

Publication number	Publication date	Application number	Application date
CO6880009 U1	20140228	CO20130201619U	20130826

Priority:

CO20130201619U 20130826

Probable Assignee: FUNDACION UNIVERSIDAD DE BOGOTA JORGE TADEO LOZANO

Assignee(s): (std): FUNDACION UNIVERSIDAD DE BOGOTA JORGE TADEO LOZANO

Inventor(s): (std): VAZQUEZ MIRANDA LEONARDO ; ALVAREZ ROMERO FERNANDO

2) Family number: 43003050 (NO20083734L)

© PatBase

Title: ANORDNING FOR SPREDNING AV MAT VED AVLING AV DYR

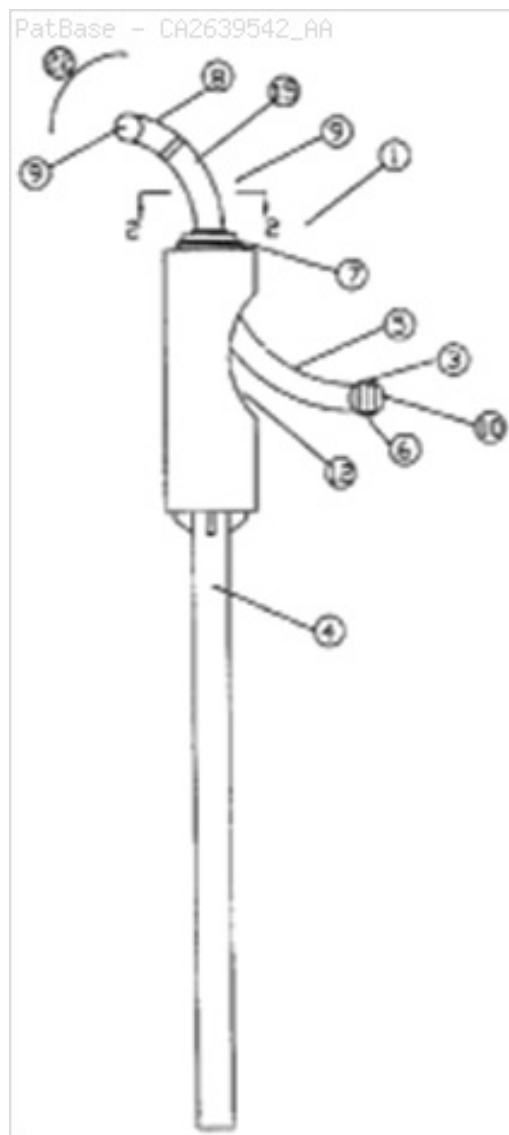
Abstract: Source: NO20083734L [NO] Anordninger for a spre naering over et vannlegeme, i et område hvor det dyrkes vannart, som i et flatebur eller i et basseng for fiskeoppdrett, som omfatter en stoetteanordning som gjoer det mulig a opprettholde og a plassere anordningen i en beliggenhet i eller over vannlegemet i flateburet eller i oppdrettsbassenget, og en ledningsanordning for en stroem av en blanding av luft og far, dannet av en serie buede ledninger som opprettholder en kontinuerlig stroem uten hindring for transport og spredning av fare.

Classifications:

International (IPC 8-9): A01K61/00 A01K61/02

A01K61/80 (Advanced/Invention);

A01K61/02 (Core/Invention)



Family:

Publication number	Publication date	Application number	Application date
CA2639542 AA	20090228	CA20082639542	20080902
CL2007002550 A1	20080328	CL20070002550	20070831
NO20083734 A	20090302	NO20080003734	20080829
NO20083734 L	20090302	NO20080003734	20080829

Priority:

CL20070002550 20070831

Probable Assignee: INVERSIONES AUBEL LTDA

Assignee(s): (std): AUBEL MOHR ERNESTO FRANCISCO ; MOHR ERNESTO FRANCISCO AUBEL
Assignee(s): INVERSIONES AUBEL LTDA
Inventor(s): (std): MOHR ERNESTO FRANCISCO AUBEL ; AUBEL MOHR ERNESTO FRANCISCO
Agent(s): PERLEY ROBERTSON HILL AND MCDUGALL LLP; MARCCAIN LTDA

3) Family number: 4711053 (US4508057A)

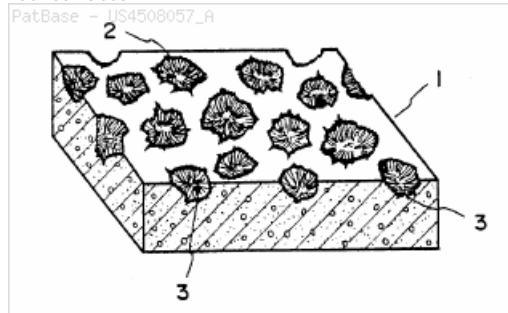
© PatBase

Title: ALGAL CULTURING REEF UNIT, ARTIFICIAL REEF UNIT AND ARTIFICIAL CULTURING AND FISHING FIELD UNIT

Abstract: An artificial algal culturing reef unit, an artificial reef unit and an artificial culturing and fishing area unit, aimed at raising or culturing algae, fishes and shellfishes, are usually submerged in a shallow sea zone with a depth ranging between 5 and 15 meters. These units are required to be resistant to high waves and fast oceanic currents usually encountered in such sea zone. Although concrete materials are suitable in consideration of its strength and costs, an alkali is necessarily emitted from their surfaces that is extremely harmful to diatoms and algae as well as fishes and shellfishes. The present invention resides in an algal culturing reef unit and an artificial reef unit wherein a layer of iron sulfate or iron (II) sulfate or a layer of an acid and iron oxide powders are formed on the surface of concrete blocks for penetration into the inside of the blocks, whereby the alkali from the concrete is neutralized with an acid from the iron sulfate or iron (II) sulfate or an acid contained in said layer and iron oxides liked by algae or fishes and shellfishes are caused to exist in abundance on the reef surfaces.

Classifications:

International (IPC 8-9): A01K61/00 C12N1/12
E02B3/04 (Advanced/Invention);
A01K61/00 C12N1/12 E02B3/04 (Core/Invention)
International (IPC 1-7): A01K61/00
CPC: E02B3/046 A01K61/70 C12N1/12 Y02A40/83
European: A01K61/00E C12N1/12 E02B3/04C
US: 119/205 119/221 119/238 119/3



Family:

Publication number	Publication date	Application number	Application date
US4508057 A	19850402	US19830533024	19830916

Priority:

US19830533024 19830916

Probable Assignee: TOKYU MUSASHI MFG CO LTD

Assignee(s): (std): TOKYU MUSASHI MFG CO LTD

Assignee(s): TOKYU MUSASHI MFG CO ; TOKYU MUSASHI MFG CO LTD 1 21 2 DOHGENZAKA SHIBUYA ; TOKYU MUSASHI MFG CO LTD 1 21 2 DOHGENZAKA SHIBUYA KU TOKYO JAPAN A CORP OF JAPAN ; HOKURIKU ESTATE CO 4 6 15 MATSUMOTO FUKUI SHI FUKUI ; HOKURIKU ESTATE CO 4 6 15 MATSUMOTO FUKUI SHI FUKUI 910 JAPAN A CORP OF JAPAN LTD ; HOKURIKU ESTATE CO LTD ; TOKYU MUSASHI MFG

Inventor(s): (std): SUZUKI TETSUO

4) Family number: 61842098 (US2016067883A)

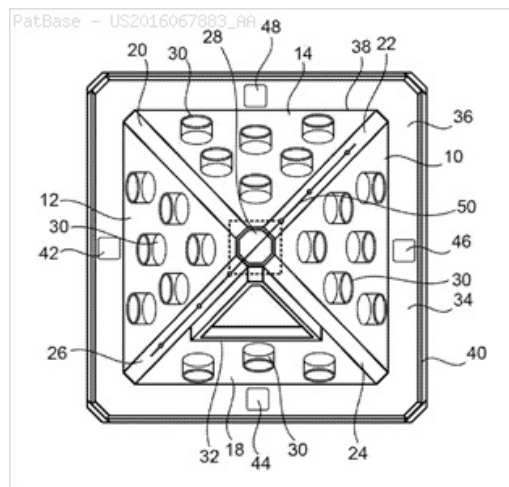
© PatBase

Title: PROCESS FOR FORMING AN ARTIFICIAL REEF

Abstract: A process for forming an artificial reef includes the steps of forming a form having a geometric shape, applying at least one blackout onto a surface of the form such that the blackout extends outwardly of the surface of the form, applying a sprayable concrete over the form and the blackout, curing the sprayable concrete on the form for a period of time, removing the blackout from the surface of the form and from the cured sprayable concrete, and removing the form from the cured sprayable concrete. A base is formed having an upper surface. The lower end of the form is positioned upon the base. The sprayable concrete is sprayed over the upper surface of the base.

Classifications:

International (IPC 8-9): A01K61/00 A01K61/70 B28B1/32 B28B11/24
B28B23/00 B28B7/00 B28B7/18 B29C41/08 E02B3/04
E02B7/02 (Advanced/Invention);
B29C41/08 E02B3/04 (Advanced/Non-invention)
CPC: B28B11/245 B28B7/18 E02B3/046 E02B7/02 A01K61/70 B28B1/32
B28B7/0029 B28B23/00 B29C41/08 Y02A10/26
US: 1/1 264/300 264/309 405/25



Family:

Publication number	Publication date	Application number	Application date
US2016067883 AA	20160310	US20150938543	20151111
US2017028585 AA	20170202	US20160225318	20160801
US2018066408 AA	20180308	US20170686479	20170825
US9403287 BB	20160802	US20150938543	20151111
US9498901 BA	20161122	US20140291958	20140530
US9744687 BB	20170829	US20160225318	20160801
US10138610 BB	20181127	US20170686479	20170825

Priority:

US20140291958 20140530 US20150938543 20151111 US20160225318 20160801
US20170686479 20170825

Probable Assignee: ATLANTIS MARINE HABITATS LLC

Assignee(s): (std): ATLANTIS MARINE HABITATS LLC ; BAUER HILTON HOLDINGS LLC ; BAUER WAYNE ; HILTON THOMAS J

Inventor(s): (std): HILTON THOMAS J ; BAUER WAYNE ; BAUER WAYNE EVAN

Agent(s): EGBERT LAW OFFICES PLLC

5) Family number: 33174133 (US2006189686A)

PatBase

Title: USE OF A COMBINATION OF SUBSTANCES TO PREVENT BIOFOULING ORGANISMS

Abstract: This invention relates to the use of a combination of selected substances in paint to prevent the settlement and growth of different biofouling organisms with a reduced negative effect on the ecosystems compared to present methods.

Classifications:

International (IPC 8-9): A01N43/76 A01P15/00 A61K31/315 C09D5/00 C09D5/16 (Advanced/Invention);
C09D5/00 C09D5/16 (Core/Invention)

CPC: A01N37/40 A01N43/50 A01N43/76 A01N47/04 C09D5/1625 C09D5/1687

European: A01N37/40 A01N43/50 A01N43/76 A01N47/04 C09D5/16C3K C09D5/16N

US: 514/494

Family:

Publication number	Publication date	Application number	Application date
CA2594862 AA	20070713	CA20062594862	20060127
CN101106904 A	20080116	CN200680002475	20060127
EP1841319 A1	20071010	EP20060701748	20060127
KR20070102562 A	20071018	KR20077019070	20070821
US2006189686 AA	20060824	US20060339193	20060125
WO06080890 A1	20060803	WO2006SE00124	20060127

Priority:

US20050647479P 20050127 US20060339193 20060125 US20060339193 20060126
WO2006SE00124 20060127

Probable Assignee: TECH AB I

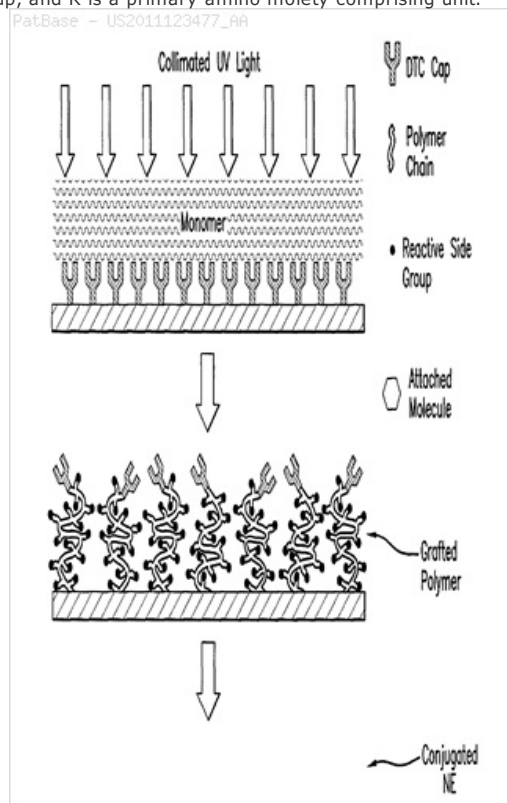
Assignee(s): (std): MARTENSSON LENA ; TECH AB I ; TECH I AB

Assignee(s): I TECH AB

Inventor(s): (std): MAARTENSSON LENA ; MARTENSSON LENA ; LENA MARTENSSON

Agent(s): SMART AND BIGGAR; LYNN E BARBER

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LC LI LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MW MX MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SM SN SY SZ TD TG TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW

Title: METHOD AND COMPOSITIONS FOR BIOFOULING DETERRENCE**Abstract:** A method of deterring biofouling of a surface comprising attaching an adduct having formula (I) or noradrenalin to the surface. Formula (I) being defined as compounds that have the formula A-L-R wherein A is i) a C6 or C10 substituted aryl ring, or ii) a C1-C9 substituted or unsubstituted heteroaryl ring; L is a linking group, and R is a primary amino moiety comprising unit.**Classifications:****International (IPC 8-9):** A01N25/10 A01N3/02 A01N33/10 A01P17/00 A01P9/00 C08F20/40 C09D133/02 C09D133/14 C09D201/00 C09D5/14 C09D5/16 C09D7/12 (Advanced/Invention); A01N3/00 C09D5/16 (Core/Invention)**CPC:** A01N33/10**European:** A01N33/10**US:** 424/78.09 424/78.090P 525/329.9 525/329.900S**JP F-Term:** 4H011 4H011/AD01 4H011/BA01 4H011/BB04 4H011/BC19 4H011/DA04 4H011/DD01 4H011/DH02 4J038 4J038/CG03 4J038/CG14 4J038/CH12 4J038/NA05 4J038/PB01 4J038/PB03 4J038/PB07**JP F-Index:** A01N25/10 A01N33/10 A01P17/00 C09D133/02 C09D133/14 C09D201/00 C09D5/14 C09D5/16 C09D7/12**Family:**

Publication number	Publication date	Application number	Application date
EP2274384 A2	20110119	EP20090739106	20090324
EP2274384 A4	20130306	EP20090739106	20090324
JP2011517469 T2	20110609	JP20110501798T	20090324
JP5631863 B2	20141126	JP20110501798T	20090324
US2011123477 AA	20110526	US20090933476	20090324
US9560848 BB	20170207	US20090933476	20090324
WO09134303 A2	20091105	WO2009US01818	20090324
WO09134303 A3	20091223	WO2009US01818	20090324
WO09134303 A9	20100218	WO2009US01818	20090324

Priority:

US20080039032P 20080324 US20090933476 20090324 WO2009US01818 20090324

Probable Assignee: CLEMSON UNIV**Assignee(s):** (std): GOHAD NEERAJ V ; METTERS ANDREW ; MOUNT ANDREW S ; UNIV CLEMSON ; SHAH NIHAR M**Assignee(s):** CLEMSON UNIV ; CLEMSON UNIVERSITY ; NAVY SECRETARY OF UNITED STATES OF AMERICA**Inventor(s):** (std): GOHAD NEERAJ V ; MOUNT ANDREW S ; SHAH NIHAR M ; METTERS ANDREW**Agent(s):** SCHLIEF THOMAS P; DORITY AND MANNING PA; SPRATT GWENDOLYN D ET AL**Designated states:** AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW**Title:** USE OF A COMBINATION OF SUBSTANCES TO PREVENT BIOFOULING ORGANISMS**Abstract:** A combination of selected substances in paint to prevent the settlement and growth of different bio-fouling organisms with a reduced negative effect on the ecosystems compared to present methods. Useful substances include medetomidine with various copper and zinc formulations, tolylfuamide, diclofluanide, Diuron and Irgarol, or more general biocides such as SeaNine (4,5-dichloro-2-n-octyl-3(2H)-isothiazolone) or EcoNea (2-(p-chlorophenyl)-3-cyano-4-bromo-5-trifluoromethyl).**Classifications:****International (IPC 8-9):** A01M21/04 A01M29/30 A01N A01N43/48 A01N43/50 A01N43/58 A01N43/70 A01N43/80 A01N47/04

A01N47/30 A01P A01P13/00 A01P15/00 A01P17/00 B63B59/00 C09D C09D201/00 C09D5/14 C09D5/16 C09D7/12
C23C28/00 (Advanced/Invention);
A01N43/48 C09D5/16 (Advanced/Non-invention);
A01N43/48 A01N43/64 A01N43/72 A01N47/02 A01N47/28 A01P13/00 A01P15/00 B63B59/00 C09D201/00 C09D5/14 C09D5/16
C09D7/12 (Core/Invention);
A01N A01P C09D (Subclass/Invention)
International (ipc 1-7): A01N43/58 A01P13/00 C09D5/16
CPC: C09D5/1687 A01N43/50 C09D5/1612 C09D5/1625
European: A01N43/50 C09D5/16C3 C09D5/16C3K C09D5/16N
US: 106/15.05 106/18.32 106/18.34 106/18.35 106/18.36 114/222 424/405 424/78.09 514/184 514/360 514/372 514/396
523/122 523/179
JP F-Term: 4H011 4H011/AD01 4H011/BB07 4H011/BB09 4H011/BB10 4H011/BB14 4H011/DD07 4J038 4J038/JA03 4J038/JB27
4J038/JB32 4J038/JB34 4J038/JC16 4J038/NA05 4J038/PB07 4J038/PC02 2B121 2B121/AA06 2B121/AA19 2B121/CC05
2B121/CC21 2B121/CC25 2B121/CC31 2B121/EA30 2B121/FA13 4H011/AB01 4H011/BA06 4H011/BB11 4H011/DA19 4J038/EA01
4J038/JB24 4J038/JC01 4J038/KA00 4J038/PB05
JP F-Index: A01N43/50/L A01N43/70 A01N43/80/102 A01N47/04 A01N47/30/B A01P15/00 C09D201/00 C09D5/14 C09D7/12
A01M21/04/D A01M29/00/118 A01M29/30 A01P13/00 A01P17/00 C09D5/16 C09D7/63

Family:

Publication number	Publication date	Application number	Application date	
AT529486 E	20111115	AT20060769654T	20060802	
AU2006276354 AA	20070208	AU20060276354	20060802	
AU2006276354 AB	20080313	AU20060276354	20060802	
AU2006276354 BB	20100603	AU20060276354	20060802	
CA2617570 AA	20080131	CA20062617570	20060802	
CA2617570 C	20111101	CA20062617570	20060802	
CN101238184 A	20080806	CN200680028608	20060802	
CN101238184 B	20110406	CN200680028608	20060802	
CY1112065 T1	20151104	CY20111101114T	20111118	
DE602006025255 D1	20111215	DE200660025255T	20060802	
DK1910477 T3	20111205	DK20060769654T	20060802	
EP1910477 A1	20080416	EP20060769654	20060802	
EP1910477 B1	20111019	EP20060769654	20060802	
ES2374972 T3	20120223	ES20060769654T	20060802	
HK1123319 A1	20111007	HK20090100495	20090119	
HK1123319 A1	20090612	HK20090100495	20090119	
HK1123319 A3	20090612	HK20090100495	20090119	
HK1123319 B	20111007	HK20090100495	20090119	
IN00922DN2008 A	20080627	IN2008DN00922	20080201	
IN08980DN2014 A	20150710	IN2014DN08980	20141027	
IN263581 B	20141107	IN2008DN00922	20080201	
JP2009503229 T2	20090129	JP20080524942T	20060802	
JP2012233010 A2	20121129	JP20120192934	20120903	
JP5372508 B2	20131218	JP20080524942T	20060802	
JP5514874 B2	20140604	JP20120192934	20120903	
KR101003251 B1	20101221	KR20087001211	20060802	
KR20080047528 A	20080529	KR20087001211	20060802	
PT1910477 T	20111215	PT20060769654T	20060802	
US2007028825 AA	20070208	US20060497454	20060801	
US7670416 BB	20100302	US20060497454	20060801	
VN10082 A1	20120327	VN20080000544	20060802	
WO07015676 A1	20070208	WO2006SE50275	20060802	

Priority:

US20050705321P 20050804 US20050705321 20050804 US20060497454 20060801
US20060097454 20060801 EP20060769654 20060802 JP20080524942 20060802
WO2006SE50275 20060802

Probable Assignee: I TECH AB

Assignee(s): (std): I TECH AB ; MARTENSSON LENA ; TECH AB I ; TECH I AB

Inventor(s): (std): MAARTENSSON LENA ; MA RTENSSON LENA ; LENA MARTENSSON ; MARTENSSON LENA

Inventor(s): LENA MAARTENSSON

Agent(s): GRIFFITH HACK; SMART AND BIGGAR; HOFFMANN EITLE PATENT U RECHTSANWAELTE PARTMBB; FAGERLIN HELENE; CHAN TANG AND KWOK; LYNN E BARBER; LYNN E

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MW MX MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SY SZ TD TG TJ TM TN TR TT TZ UA UG UZ VC VN ZA ZM ZW

8) Family number: 5652552 (EP0134855A1)

© PatBase

Title: CONCRETE BLOCKS FOR USE UNDERWATER FOR ALGAL CULTURE.

Abstract: A concrete block is provided with iron (II) or (III) sulfate on its surface, to neutralise alkali leached underwater from the concrete. The iron ions are also good for growth of algae and fish and shellfish. The sulfate is present either in crystals (4) embedded in recesses (2) in the surface of the block (1), or as a continuous layer on the surface, the layer being coated from a liquid mixture of iron sulfate particules and a surfactant. A single shaped block can serve as an artificial reef for growth of algae in a shallow sea zone; it may have recesses to shelter sea animals. Various assemblies of the blocks are described for culture of

fish and animals.

Classifications:

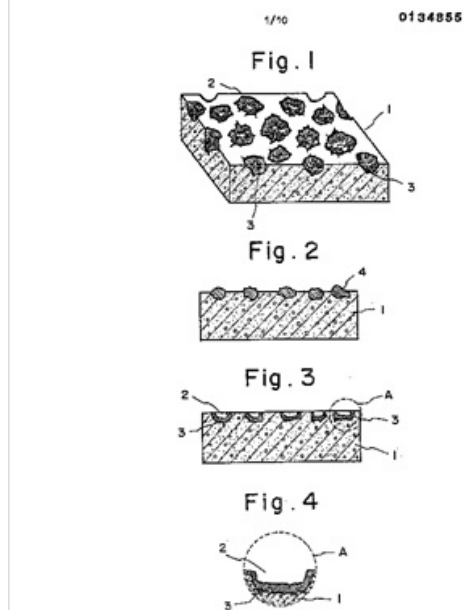
International (IPC 8-9): A01K61/00 A01K61/70 C04B22/14 C04B41/50 C04B41/65 C12N1/12 E02B3/04 (Advanced/Invention); A01K61/00 C04B22/00 C04B41/45 C04B41/60 C12N1/12 E02B3/04 (Core/Invention)

International (IPC 1-7): A01G33/00 A01K61/00

CPC: C04B41/009 A01K61/70 C04B22/149 C04B41/5014 C04B41/65 C12N1/12 E02B3/046 Y02A40/83

European: A01K61/00E C04B22/14G8 C04B41/00V C04B41/50F8 C04B41/65 C12N1/12 E02B3/04C

PatBase - EP0134855_A1



Family:

Publication number	Publication date	Application number	Application date
EP0134855 A1	19850327	EP19830305434	19830915
EP0134855 B1	19871223	EP19830305434	19830915

Priority:

EP19830305434 19830915

Probable Assignee: HOKURIKU ESTATE CO

Assignee(s): (std): TOKYU MUSASHI MANUFACTURING CO ; TOKYU MUSASHI MFG CO

Assignee(s): TOKYU MUSASHI MANUFACTURING CO LTD ; HOKURIKU ESTATE CO ; HOKURIKU ESTATE CO LTD

Inventor(s): (std): SUZUKI TETSUO

Designated states: FR GB IT

9) Family number: 51938580 (US2012285160A)

© PatBase

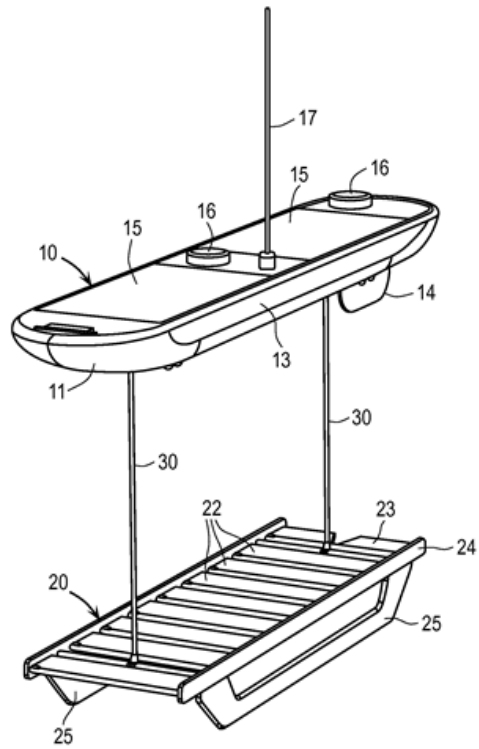
Title: WAVE-POWERED DEVICES CONFigured FOR NESTING

Abstract: A wave-powered water vehicle includes a) a first component which is a float that travels on or near the water surface; b) a second component which is wave actuated and travels below the first component; and c) a means whereby the first component engages the second component and/or the second component engages the first component; wherein the engagement means provides lateral support of one component for the other, and thereby minimizes lateral movement of one against the other when the components are fitted together.

Classifications:

International (IPC 8-9): A01B A01B79/00 A01C21/00 A01G1/00 A01K A01K61/00 A01K61/02 A01K61/80 A01K61/90 B63B B63B21/56 B63B21/66 B63B35/00 B63B35/44 B63B38/00 B63G8/08 B63H B63H1/30 B63H1/32 B63H1/36 B63H19/00 B63H19/02 B63H19/04 B63H21/17 B63H25/04 B63H25/08 B63J3/00 B63J3/02 B63J99/00 F03B F03B13/00 F03B13/10 F03B13/16 F03B13/18 F03B13/20 G01N33/18 G01S G01S19/49 G05D G05D1/00 G05D1/02 G05D1/12 G05D3/12 G08G3/00 (Advanced/Invention); B63G8/00 B63G8/42 B63J3/00 (Advanced/Non-invention); A01K B63H F03B G01S (Subclass/Invention)

CPC: B63B2035/007 B63G2008/007 B63H21/17 B63J2003/002 G01N33/1886 B63B2209/18 B63G2008/425 B63H1/32 G01S19/49 B63H2021/171 B63H2025/045 G05D1/0206 Y02T70/5245 B63G8/42 B63G8/08 F03B13/1885 F05B2260/02 G08G3/00 G05D3/12 B63H19/04 F03B13/10 F03B13/1815 F03B13/20 F05B2240/931 Y02E10/38 F03B13/16 Y02P60/24 B63B2035/008 B63J99/00 B63J3/02 B63B2754/00 B63J2003/003 B63J2099/008 B63B35/00 A01K61/80 A01K61/90 B63B21/66 B63B2211/02 B63H19/02 B63H25/04 Y02P60/64 Y02T70/59 Y02A40/81 Y02A40/845 F03B13/00 F05B2220/708 A01K61/20 B63B35/73 **European:** B63B21/66 B63H1/32 B63H19/02 B63H25/04 F03B13/18B2B F03B13/20 G01S19/49 G05D1/02C L63B209/18 L63G8/42C L63H21/17P L63H25/04G R05B240/931 R05B260/02 Y02T70/52D2 Y02T70/59 **US:** 1/1 114/242 114/256 114/267 114/336 114/337 119/230 290/53 414/800 440/10 440/6 440/9 47/1.4 60/327 60/497 60/499 701/2 701/21 701/23 701/24

**Family:**

Publication number	Publication date	Application number	Application date
AR085448 AA	20131002	AR2012P100904	20120319
AR085449 AA	20131002	AR2012P100905	20120319
AR085450 AA	20131002	AR2012P100906	20120319
AU2012228948 AA	20120920	AU20120228948	20120319
AU2012228948 BB	20160414	AU20120228948	20120319
AU2012228951 AA	20120920	AU20120228951	20120319
AU2012228951 BB	20160505	AU20120228951	20120319
AU2012228956 AA	20120920	AU20120228956	20120319
AU2012228956 AA	20130509	AU20120228956	20120319
AU2012228956 BB	20160407	AU20120228956	20120319
AU2012275286 AA	20130103	AU20120275286	20120628
AU2012275286 BB	20160331	AU20120275286	20120628
AU2012327253 AA	20130530	AU20120327253	20120917
AU2012327253 BB	20160428	AU20120327253	20120917
AU2016204721 AA	20160728	AU20160204721	20160707
AU2016204721 BB	20170810	AU20160204721	20160707
AU2016204872 AA	20160728	AU20160204872	20160712
AU2016204872 BB	20180405	AU20160204872	20160712
AU2017204367 AA	20170720	AU20170204367	20170627
CA2830437 AA	20130916	CA20122830437	20120319
CA2839945 AA	20131218	CA20122839945	20120628
CN103608582 A	20140226	CN201280013911	20120319
CN103608582 B	20170704	CN201280013911	20120319
CN103635384 A	20140312	CN201280032587	20120628
CN103635384 B	20161130	CN201280032587	20120628
CN107082109 A	20170822	CN201610924505	20120628
DE602012004419 D1	20150212	DE201260004419T	20120319
DE602012027726 D1	20170302	DE201260027726T	20120628
DE602012031627 D1	20170608	DE201260031627T	20120319
DE602012059745 D1	20190516	DE201260059745T	20120628
EP2686236 A2	20140122	EP20120731198	20120319
EP2686236 B1	20141217	EP20120731198	20120319
EP2686543 A2	20140122	EP20120743552	20120319
EP2686543 B1	20170426	EP20120743552	20120319
EP2739526 A1	20140611	EP20120740770	20120628
EP2739526 B1	20170111	EP20120740770	20120628
EP3208185 A1	20170823	EP20160199890	20120628
EP3208185 B1	20190501	EP20160199890	20120628
EP3267275 A1	20180110	EP20170167933	20120319
ES2635079 T3	20171002	ES20120743552T	20120319
HK1194040 A1	20150731	HK20140107451	20140722

HK1194040 A1	20141010	HK20140107451	20140722
HK1194040 B	20150731	HK20140107451	20140722
HK1194124 A1	20141010	HK20140107450	20140722
HK1194124 B	20180223	HK20140107450	20140722
HK1198696 A1	20150529	HK20140112214	20141204
HK1198696 B	20180215	HK20140112214	20141204
MY164096 A	20171130	MY20130702368	20120628
MY166904 A	20180724	MY20130701665	20120319
SG10201602039U A1	20160428	SG20161002039	20120319
SG193480 A1	20131030	SG20130069521	20120319
TW201244992 A	20121116	TW20120109395	20120319
TW201309548 A	20130301	TW20120109396	20120319
TW201309549 A	20130301	TW20120109397	20120319
TWI522278 B	20160221	TW20120109395	20120319
TWI557024 B	20161111	TW20120109396	20120319
TWI600586 B	20171001	TW20120109397	20120319
US2012285160 AA	20121115	US20120424170	20120319
US2012295499 AA	20121122	US20120424156	20120319
US2013006445 AA	20130103	US20120424239	20120319
US2013059488 AA	20130307	US20120536935	20120628
US2013068153 AA	20130321	US20120621803	20120917
US2014290233 AA	20141002	US20140303470	20140612
US2016027308 AA	20160128	US20150795646	20150709
US2016186716 AA	20160630	US20150841468	20150831
US2016272294 AA	20160922	US20150975330	20151218
US2017291671 AA	20171012	US20170635090	20170627
US2017295759 AA	20171019	US20140197091	20140304
US2019106187 AA	20190411	US20180213941	20181207
US8764498 BB	20140701	US20120424156	20120319
US8808041 BB	20140819	US20120536935	20120628
US8825241 BB	20140902	US20120424239	20120319
US8944866 BB	20150203	US20120621803	20120917
US9151267 BB	20151006	US20120424170	20120319
US9353725 BB	20160531	US20140303470	20140612
US9524646 BB	20161220	US20150795646	20150709
US9688373 BB	20170627	US20150975330	20151218
US9802681 BA	20171031	US20140197091	20140304
US10041466 BB	20180807	US20150841468	20150831
US10150546 BB	20181211	US20170635090	20170627
WO12126009 A2	20120920	WO2012US29696	20120319
WO12126009 A3	20130516	WO2012US29696	20120319
WO12126012 A2	20120920	WO2012US29703	20120319
WO12126012 A3	20130228	WO2012US29703	20120319
WO12126017 A2	20120920	WO2012US29718	20120319
WO12126017 A3	20130314	WO2012US29718	20120319
WO13003640 A1	20130103	WO2012US44729	20120628
WO13077931 A2	20130530	WO2012US55797	20120917
WO13077931 A3	20130718	WO2012US55797	20120917

Priority:

US20060436447	20060518	US20080082513	20080411	US20110453871P	20110317
US20110453862P	20110317	US20110502279P	20110628	US20110535322P	20110915
US20110535116P	20110915	US20120585229P	20120110	AU20120228948	20120319
AU20120228951	20120319	AU20120228956	20120319	EP20120731198	20120319
EP20120743552	20120319	US20120424170	20120319	US20120424156	20120319
US20120424239	20120319	US20120228948	20120319	WO2012US29718	20120319
WO2012US29696	20120319	WO2012US29703	20120319	US20120536935	20120608
AU20120275286	20120628	CN201280032587	20120628	EP20120740770	20120628
EP20160199890	20120628	US20120536935	20120628	WO2012US44729	20120628
US20120621803	20120917	WO2012US55797	20120917	US20140197091	20140304
US20140303470	20140612	US20150795646	20150709	US20150841468	20150831
US20150975330	20151218	AU20160204721	20160707	AU20160204872	20160712
AU20170204367	20170627	US20170635090	20170627	US20180213941	20181207

Probable Assignee: LIQUID ROBOTICS INC

Assignee(s): (std): HINE DEREK L ; HINE ROGER G ; LIQUID ROBOTICS INC

Assignee(s): LIQUID ROBOTICS INC SUNNYVALE

Inventor(s): (std): HINE ROGER G ; HINE DEREK L

Inventor(s): HINE ROGER G MENLO PARK

Agent(s): DAVIES COLLISON CAVE; SPRUSON AND FERGUSON; DAVIES COLLISON CAVE PTY LTD; BORDEN LADNER Gervais LLP; SMART AND BIGGAR; LORD MICHAEL; GILL JENNINGS AND EVERY LLP; LLOYD ROBIN; HOWSON RICHARD GB; CARVAJAL Y ISABEL; CHINA PATENT AGENT HK LTD; SANYOU INTELLECTUAL PROPERTY LTD; ONE LEGAL LLC; KILPATRICK TOWNSEND AND STOCKTON LLP; GATES AND COOPER LLP; SLONE DAVID ET AL; SCHIFF MICHAEL ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: LOBSTER RANCHING METHODS AND STRUCTURES

Abstract: Methods and structures are provided for enhancing marine habitats for lobster and crab ranching. According to a first aspect of the invention, predators of at least adult lobster are excluded from a ranching area. According to a second aspect of the invention, the method includes arranging a plurality of artificial shelters in at least one zigzag hedgerow, preferably parallel to normally prevailing ocean currents. According to further aspects, the methods include providing artificial shelter for at least the large juvenile and adult lobster at a marine location; providing an artificial benthic habitat for benthic phase juvenile lobster within at the marine location; and/or providing a settlement and nursery habitat for early benthic phase juvenile lobster to the marine location. According to a still further aspect, the methods preferably include vertically integrating the artificial shelter, the artificial benthic habitat, and the settlement and settlement habitat. According to yet another aspect of the invention, the methods include capturing puerulus from the ocean; protecting the captured puerulus in a puerulus moult facility until at least the first instar moult into early benthic phase juveniles; and transplanting the juveniles to the marine location. The methods also include harvesting of the lobster or crab product. Predator-exclusion structures and building techniques are also provided. In addition, artificial calcareous cavern matrix is provided for nursery and benthic habitats. The various aspects of the methods are best used together to achieve a cumulative or synergistic enhancement of lobster populations at a marine location. Finally, suitable structures for practicing various aspects of the invention are provided.

Classifications:

International (IPC 8-9): A01K61/00 A01K61/59

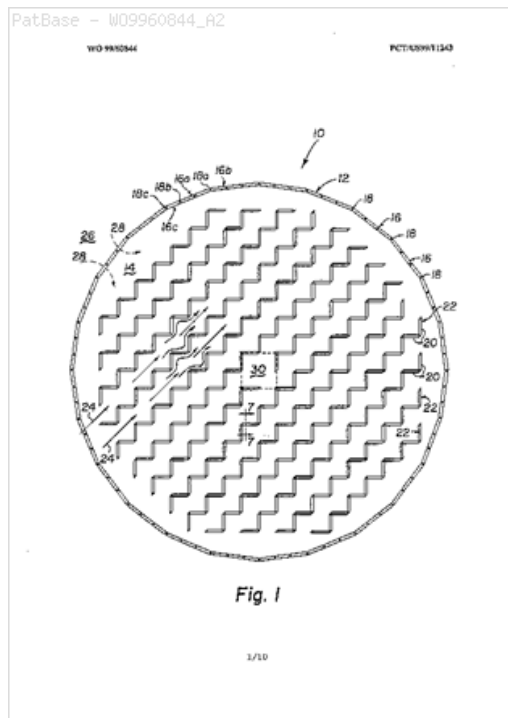
A01K61/70 (Advanced/Invention);

A01K61/00 (Core/Invention)

International (IPC 1-7): A01K61/00

CPC: A01K61/70 A01K61/59 Y02A40/824 Y02A40/83

European: A01K61/00D A01K61/00E



Family:

Publication number	Publication date	Application number	Application date
AU199941953 A1	19991213	AU19990041953	19990521
WO9960844 A2	19991202	WO1999US11243	19990521
WO9960844 A3	20000309	WO1999US11243	19990521

Priority:

US19980087376P 19980528 WO1999US11243 19990521

Probable Assignee: WHITE HAVES REYNOLDS JR

Assignee(s): (std): HAVES REYNOLDS WHITE JR ; WHITE HAVES REYNOLDS JR

Inventor(s): (std): WHITE HAVES REYNOLDS JR

Inventor(s): HAVES REYNOLDS WHITE JR

Designated states: AL AM AT AU AZ BA BB BE BF BG BJ BR BY CA CF CG CH CI CM CN CU CY CZ DE DK EE ES FI FR GA GB GE GH GM GN GR GW HU IE IL IS IT JP KE KG KP KR KZ LC LK LR LS LT LU LV MC MD MG MK ML MN MR MW MX NE NL NO NZ PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TR TT UA UG US UZ VN ZW

Title: PREFABRICATED TYPE FISH BANK BLOCK

Abstract: Source: JP56121420A **Machine translation:** [Source: Claim 1 and 2, the name of the invention the reef block - the prefabricated (1) based on the on the basis of the closed annular peripheral frame number L2), bale struts (2), .. in the circumferential direction, spaced apart and the (,2) appropriately opened has the lower end of the strut to said foundation on the inner peripheral surface of the peripheral frame (1) in abutting contact with the erected on the other hand, the strut (2), a plurality of j (j), the vertical wall material, Google' By integrally formed radially in the plate (3) and R#iuk gourd (a (3,2,4t2). each distal end surface of the material. Each 11N?-Oa) The vertical direction of the intermediate position e by the strut (2) the inner i and +! Bean paste (O / a) l in contact with the circumference of the intermediate plate (3, I) and the base frame (1) and removed in an unseemly manner as h (b) is a flow opening in a state of forming a respective column support (together with

Seshimeru the lower end portion of the upper end portion of the pillar outer Tadashi (,2) in contact with the bundling each strut (2) to the top portion closed circular (j3) (j), elm and Zeon, characterized in that applied to the prefabricated reef blocks 3." The Detailed Description of the Invention The present optical theory" and sinking in the seabed, a large number in order to construct an artificial reef, the present invention relates to the reef block, and more particularly, to a suitable several a triumph over assembled prefabricated Hayashi fish reef block. Known geoyeo and assembly, it is possible to fish or blocks in these known to be scattered in the assembly type, reef block, the same fastening bolt or the like places or more complicated assembly operation. Further, in the conventional S-bottom of the reef block, referred to as LIB sinking score elephant Sasaki regulations by the influence of the decrease in flow in a short period of time, a problem that make light of would be buried in the. Which is sinking into the seabed portion, reef block, whether the tide (the lower side of the projecting portion around the reef block is part of the round, or downward tide turning the bottom periphery of the age of the oil has a reef block bottom sediment drilling the seabed and passed a long period of is recessed below the reef block as the block use of the reefs It was sometimes eliminated. The present invention is the above-mentioned prior Endpage:1 reef block can either be to solve the problems of the continuous shooting or the like, further manufacturing sinking work is facilitated, moreover high strength after assembly, not coupled rattling to be able to either be reef block, and an object thereof is to provide a. Hereinafter, based on the illustrated embodiment of the present invention, wherein the pre-reef blocks, and the theory to Akira, Fig. 1 of the embodiment shown in Fig. 3, respectively the prefabricated reef block 10 made of reinforced concrete foundation, 6 peripheral frame-like and the exhibition struts 2, the lower plate 3, sets the upper vertical plate, such as a basic member intermediate narrow plate and the top plate @ j as have been made. This fish reef block 10 peripheral frame and/m1 of the base 6 spaced apart on the strut 2 degrees with 2, the pillar was erected each sentence on the inside surrounded by 22.2 .. top, bottom and two, 3, together with arranging the top plate on top of the j-ms - is placed assembled in show. Basic Ji! / Is 1 frame continuously in a plane substantially hexagonal closed circular are formed. It should be noted that, in this embodiment, the peripheral frame has a substantially C-shaped basic/two// // partition, bolt and a fastening member such as a closed-connected is formed in an annular shape. Basic/top of the peripheral frame 6 (hexagonal corner portion) in the longitudinal direction of the inner and outer side surfaces of small flat portions @J / h, 2. product of a. /2B is formed. This flat portions - to the mounting portion for mounting the strut 2. It should be noted that the four mounting unit /, ? M) / 2 .., etc., the circumferential direction is formed with a spaced apart. Strut -? Are appropriately rectangular cross section of the main body portion having a height -? The lower portion of the base 22 to form/K] formed and between the main body portion 2 and the inside of the a, 2 similar to the middle portion of the lower vertical plate 3 or the upper shelf for supporting the thin plate), a! The constructed by forming a. The Loud struts 2.2 and a pedestal, downward projecting portion-3 is formed. The projecting portion, ! The support base is also the base 3 and 22 to the mounting portion of the peripheral frame 2 and struts mounted upon mounting portion Koshiki-the pillar inner 2a of 2 is brought into contact with the @[FII/. In this strut 2 pedestal 2 -? The protruding portion 23 to the strut bolt 2 is fixed to the mounting portion and / 2, by erected on the peripheral frame and it is allowed to. The inside of the living body 2 (plane O /a strut portion formed in a shelf plate 3 and 2 or the upper leg has the lower longitudinal vertical plate or the one of the vertical the vertical plate (3) Material of the evening a manifesto which supports a distal end portion 6 of the outer struts, one of 7, 2 every other 3 degrees struts to be erected on the shelf portion 2 2,2 - the lower vertical plate 3 supporting the other 3, 2, 2 of the main, the T+; j 24t of the upper ledge, to support the vertical plate it is intended for. The lower vertical plate 3 supporting the base of the shelf portion of the strut 14-8 from an appropriate -74L saw only lower height S is formed in an upward position. koshiki In addition to the upper for the support plate f, green, part 2 of the lower vertical support MS241 Song Ki for the shelf plate 3 forming the lower longitudinal plate 3 distal from the crow Koshiki-T 2.2 higher than between the long Koshiki-lower height H (base is formed in a bamboo shoot higher h). 2-+ =Hig each statement, evening, the upper portion of the b1) .. top, bottom vertical plate 4t, the third material 32, the distal end portion of the PDB:2 in the vertical direction, a guide for guiding the ridges, 2.1 2K .. is, bamboo The appropriate height toward the longitudinal direction are formed. In addition, each of the main body portion , 2 , 2 ... strut, the outer (I!) ...J)/b I in the upper part of the side section 1 thereon a lower position until the appropriate height by ordinary cut-out portion, 2 b is formed. The cutout ? S, a2 vertical b will be described later, the top plate portion 5 for fitting the Toru it is intended. 6 strut 7 2,2 every other one of the three of the support, 2, 2, each t+;; 1 .27 27.27, its upper end a hook or flatter attached. This hook 27 at the time of the reef block 10 hook portion for hanging wire. The lower longitudinal plate 3 shaped as the Y 3 / baking pan at equal angular intervals around the core portion three-wall-like material 32 and the integrally formed and it is configured to. The distal end of the vertical wall material 3.2 Gi)3.2a in the vertical direction or the convex groove 33 formed. The support main body portion 33, the b 2 / blood of guide ribs 23 and the recess-projection fitting. The lower plate 3, the vertical longitudinal \$32-i check plaque three gate material 3.2.3 respectively every other frame 7 erected on the 33.33.33 three struts of guide ribs 2K, 2.1 2..2.2 2.T, fitted from above, the portion of the look-y+: fl, wall material 3.2 the lower end of the main body portion 2/' 3.2a, strut 21 is placed on the shelf by Endpage:2 strut 2 J, 2 degrees it is supported. The lower longitudinal and the base plate 3 of the upper surface and the lower peripheral frame/question out of the upper and lower sieve, 1 between S72 or the opening formed. The opening is a flow passage for the customer paid in the reef block 10 so as to reach the seabed him down the anti-settling effect. The upper lower plate 3 vertical plate 1 class 4111 #39;formed in the same shape as the upper plate, make sure of the ordination the lower longitudinal struts, to support 2,2..2 plate 3 was allowed and a part 3, the other of the struts 2, heather 2 degrees support ?. Thus the upper and the lower plate 3 are random' fsbkk make sure of the top plate 42 and is in the damping material, and - 3 J, and the vertical and the lower material 3 to each other, or 3-23 amino maid horizontal force direction angle of 60 degrees in a state shifted in the long product masa up and down, respectively It is supported. Improve the powder 3, down each plate material, and the distal end 4t, 2, 3.2, 2) and the main body portion bl, respectively the inner 1Jnll! L=2a+3.2(Illri Iieh, is in contact with the 2/a The top plate 5 of the base and the outer shape of the same outer peripheral frame and having a maid substantially hexagonal shape", the inside, the large-diameter opening is formed or j. It should be noted that this S is substantially C-shaped top plate two minutes KJ material! I, j, integrally connected by bolts, the It is coupled to. The outer peripheral edge of the top plate from the upper respiratory.sub.j only inwardly having appropriate width, treatment plan and the outer peripheral bead-like powder portion j2 to 11 it should be noted that self-excited, has uplink below the reverse, electromotive force (631 and Taku shaped longitudinal It is formed. The moat-like (8)), a blood of the strut to the upper end surface of 3.2 - the number of hook projecting upward clause 27 holes for! ;7,37.! The other hand, circumferential 17'-equivalent, Lj) - it is formed. The top plate 53 and the Kt.sub.j, the inner surface of the stone-like prompting the post-formed on the outer surface the upper end of 2.2 .. 2 .. b b a fire or heat from the outside to the 1..2 in abutting contact with the translation! The upper end portion of the :i- placed in a headband. There's top-shaped facing each other citrus depend wrinkles portion J J J, 2 is the support 22 large-diameter portion 2 b, since the drinking and j of the top, the outer peripheral edge portion of each outer side of the side strut 2 .. UMJ, 21b so as not to outward from the cutout portion. This is at the time of block 10, guidelines for the reef so as not caught in cotton or done in order. This top plate 10, the prefabricated reef block.sub.j and the base plate, the peripheral frame and each strut of each letter - 92 from the outside, up, down each unity, further on, the lower vertical plate. 3. a, a damping material, each of the struts 32-Hbm41..z or 2,2 .. i1 in r and each portion of the material from the inside to the outside, assembling so as to push out the hb (peripheral frame the strut members/up, down 3 - 1 (j), and the top plate or the plate between each other tightly bound leverage the ? It is is will be. It should be noted that, in this embodiment, the reef block 10 - l #39;, kl using four and two in the plate plate 3 and the lower vertical plate ? Royal City), the use of the vertical strut 2 and the intermediate plate (3 the number of bamboo and l are, to use a ? (Ld or monkey. Next, the operation of the illustrated first In(a) fish reef block. (B) described in conjunction with block 10 fish-vulcanization with crane suspended last month the seabed is sinking into This fish reef block 10, the sinking of the first as shown in Fig. 6 (a) immediately after are seated on the seabed, a flow portion (Iac)wa W' or diverting the peripheral frame 10 of the front surface of the reef block basis the basic/collides with the peripheral frame of the earth and sand is excavated/inner enclosure, finally, as shown in (B) is a reef block, only the portion of the peripheral frame 10 and the foundation is buried in the seabed The lower part of the reef block 10 and subsequent W of the tide flowing in the reef block and the base 10 and the lower vertical plate 3 between the peripheral frame is formed in the opening portion, as well as pull-flow in order for the action of the earth and sand excavation drives no longer forward power by more fish is not my sister is buried, long-term stability block 10 in a state in which it is possible to perform a role as a fish reef. In addition, the reef block ? and the peripheral frame 10, the base and, in plan view, series - to list the" from being formed in the base and the ground of the peripheral frame or the sea it was buried in the case, the base in the peripheral frame and a submarine sediment removal in the horizontal direction, therefore, the base can be obtained by switching to the peripheral frame, and the gripping force, the anchor effect is very large, such as KK 3 degrees upper structure plate evening, a large effect of 1 fringes be applied dams reef block 10, there is little to be lateral flow Endpage:3 In addition, this reef block 3,41 of the vertical wall 10, each vertical plate member 3, respectively, are arranged radially 2 since the flow in the direction of power flow W suitable even Izure or the vertical plates 3,41 has a resistive flow W large - a major flow is generated, the peripheral (in particular damming effect power flow) over a wide range of downstream region of

large-scale vortex flow generated Kalman) or (it is a fish or fish eat, such as plankton and small tends to stay. It should be noted that this example 10 is very because it is made of the reef block of the shellfish and seaweed, concrete layer, for easy to attract the fish after installation in a short period of time, so as to be Subsequently present

Classifications:

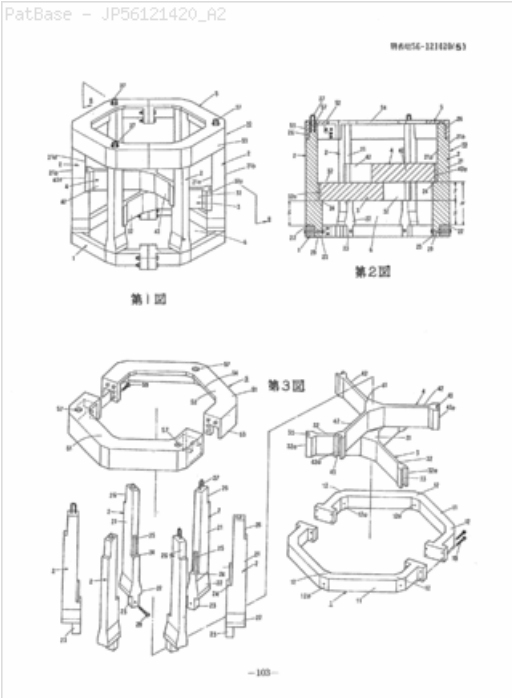
International (IPC 8-9): A01K61/00 (Advanced/Invention);
A01K61/00 (Core/Invention)

International (IPC 1-7): A01K61/00

CPC: Y02A40/81 Y02A40/834

JP F-Term: 2B003 2B003/AA01 2B003/BB02 2B003/BB04 2B003/DD01
2B104 2B104/FA13

JP F-Index: A01K61/00 A01K61/00/315 A01K61/73



Family:

Publication number	Publication date	Application number	Application date
JP56121420 A2	19810924	JP19800023585	19800226

Priority:

JP19800023585 19800226

Probable Assignee: SHINKAI TOSHIHIRO

Assignee(s): (std): SHINKAI TOSHIHIRO

Inventor(s): (std): AOKI KOUICHIROU

12) Family number: 56489638 (US2014174080A) © PatBase

Title: HYBRID TRIGENERATION SYSTEM BASED MICROGRID COMBINED COOLING, HEAT AND POWER PROVIDING HEATING, COOLING, ELECTRICAL GENERATION AND ENERGY STORAGE USING AN INTEGRATED AUTOMATION SYSTEM FOR MONITOR, ANALYSIS AND CONTROL

Abstract: Provided is a consumer to industrial scale energy trigeneration process based microgrid combined cooling, heat and power. The present invention includes conversion, processing, extraction and/or storage systems for electrical, chemical and thermal energy. The invention provides a quintessential renewable energy ecosystem incorporating vital energy generation, thermal heating and cooling processes with integrated components installed to encompass a distributed renewable energy generation, energy storage and integrated automation system. The automation system of the invention provides the ability to view, monitor, analyze, control and interact with system components.

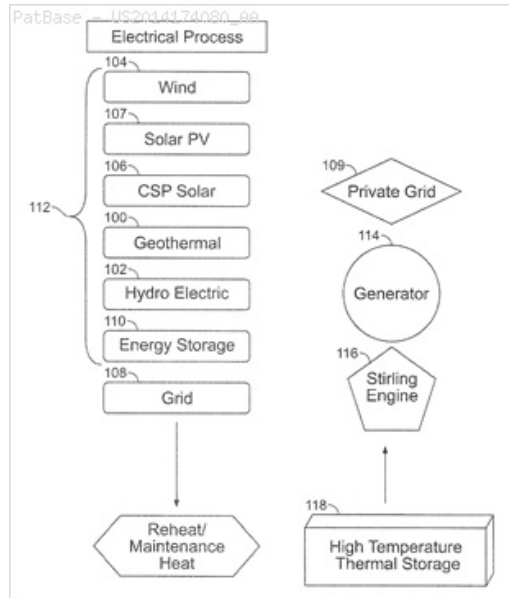
Classifications:

International (IPC 8-9): A01G31/02 A01G7/04 B29C45/17 C04B7/36
C10B53/00 C10B57/10 C12M1/00 C12M1/34 C12M1/36
C12P7/06 C12P7/10 C21C5/52 C21D1/32 C22C33/08 C25C3/06
D01F9/12 D01F9/32 F01K F01K13/00 F01K13/02 F01K23/10 F01K25/00
F01K25/10 F01K27/02 F01K3/00 F01K3/02 F01K3/12 F02C F02C1/05
F02G1/043 F02G1/044 F02G1/053 F02G1/055 F02G1/057 F02G5/02
F03D7/04 F03D9/18 F03G F03G4/00 F03G6/00 F03G6/06 F03G7/00
F03G7/04 F03G7/10 F22B F22B1/00 F24J2/00 F24J2/07 F24J2/12 F24J2/14
F24J2/18 F24J2/52 F24J2/54 F24J3/00 F25B15/00 F25B27/00 F25B27/02
F25B9/14 F28D F28D20/00 H01M8/00 H01M8/04 H01M8/0662 H02J3/28
H02J3/38 H02K H02K7/18 H02S10/10 H02S40/22
H05B37/02 (Advanced/Invention);
F02G1/043 F24J2/46 (Advanced/Non-invention);
F01K F02C F03G F22B F28D H02K (Subclass/Invention)

International (IPC 1-7): F01K13/00 F01K13/02 F01K25/00 F01K3/00
F02G1/043 F03G6/00 F03G7/04

CPC: A01G31/02 A01G7/045 H05B37/0245 C12M21/02 C12M21/04
C12M41/06 C12M41/12 C12M41/48 C12M43/00 Y02P20/59 Y02T10/166
A01G31/00 F03G6/064 F22B1/006 F28D20/003 F28D20/0082
F28D20/0086 Y02E10/52 Y02E50/16 Y02E50/17 Y02P10/138
Y02P60/216 F01K3/02 F01K3/12 F01K23/10 F03G6/00 Y02B10/20
Y02P80/15 Y02P10/32 Y02P80/25 A01K63/04 F02G2254/30 Y02A20/142
F28D20/00 A01G22/00 F24J2/07 F24J2/14 F24J2/18 F24J2/5241
F24J2/541 F24J2/461 F24J2002/5462 F01K3/00 F01K13/00 F01K13/02
F01K25/00 F02G1/043 F03G6/067 F03G6/068 F03G7/04 F24S20/20

F24S23/74 F24S23/79 F24S25/50 F24S30/425 F24S40/20 F24S2030/134
 F28D20/0039 Y02E10/41 Y02E10/45 Y02E10/46 Y02E10/47 Y02E20/14
 Y02E60/142 Y02E70/30 Y02P80/24
US: 126/694 220/592.2 315/297 47/58.1LS 47/62R 60/516 60/517
 60/641.1 60/698 62/331
JP F-Term: 3G072 3G080 3G105 3L107 5H026 5H026/AA06 5H027
 5H126 5H126/BB06 5H127 5H127/AA04 5H127/AA07 5H127/AB21
 5H127/AB26 5H127/AC15 5H127/BA05 5H127/BA12 5H127/BA18
 5H127/BA42 5H127/BB02 5H127/BB07 3G081 3G081/BA01 3G081/BB07
 3G081/BB10 3G081/BC15 3G081/BC17 3H178 3H178/AA20 3H178/AA40
 3H178/AA43 3H178/AA46 3H178/AA47 3H178/AA61 3H178/AA62
 3H178/BB21 3H178/DD24 3H178/DD54 3L091 3L094 5G066 5G066/BB02
 5G066/BB06 5G066/BB08 5G066/JA07 5G066/BB06
JP F-Index: F01K3/02/C F02G1/057/A F03G4/00/521 F03G6/00/501
 F03G6/00/551 F28D20/00/B H01M8/00/Z H01M8/04/Z H01M8/06/S
 H01M8/0662 H01M8/12 H01M8/12/101 F01K25/10/R F01K27/02/Z
 F02G1/044/A F02G1/055/E F02G1/055/G F03D7/04/Z F03D9/02/A
 F03D9/18 F03G4/00/501 F03G7/00/C F25B27/00/H F25B27/00/P
 F25B27/00/Z F25B27/02/K F25B9/14/520/A H02J3/28 H02J3/38/120
 H02J3/38/130 H02J3/38/160



Family:

Publication number	Publication date	Application number	Application date
AU2015203118 AA	20150709	AU20150203118	20150611
AU2017204250 AA	20170713	AU20170204250	20170622
BR102015013592 A2	20181030	BR20151013592	20150610
BR112015011248 A2	20171219	BR20151111248	20131115
CA2891435 AA	20151211	CA20152891435	20150514
CA2930794 AA	20160513	CA20132930794	20131115
CA2973565 AA	20170711	CA20142973565	20140501
CN104919144 A	20150916	CN201380070520	20131115
CN105257425 A	20160120	CN201510589238	20150611
EP2920432 A2	20150923	EP20130799442	20131115
EP2955372 A2	20151216	EP20150275151	20150610
EP2955372 A3	20160629	EP20150275151	20150610
HK1218148 A1	20170203	HK20160106103	20160530
JP2016000995 A2	20160107	JP20150116207	20150609
JP2016503477 A2	20160204	JP20150542822	20131115
JP2016503477 T2	20160204	JP20150542822T	20131115
US2014174080 AA	20140626	US20130081271	20131115
US2015143806 AA	20150528	US20150613994	20150204
US2015196002 AA	20150716	US20140267580	20140501
US2017204806 AA	20170720	US20170475995	20170331
US2018347406 AA	20181206	US20180102158	20180813
US9624913 BB	20170418	US20130081271	20131115
US10060296 BB	20180828	US20150613994	20150204
WO14078659 A2	20140522	WO2013US70313	20131115
WO14078659 A3	20150702	WO2013US70313	20131115
WO15105523 A1	20150716	WO2014US36410	20140501

Priority:

US20120727108P 20121115	US20130859377P 20130729	US20130877467P 20130913
US20130886213P 20131003	US20130896039P 20131026	US20130081271 20131115
WO2013US70313 20131115	US20140926372P 20140112	US20140954178P 20140317
US20140972365P 20140330	US20140267580 20140501	WO2014US36410 20140501
US20140010784P 20140611	US20150613994 20150204	AU20150203118 20150611
US20170475995 20170331	AU20170204250 20170622	US20180102158 20180813

Probable Assignee: FRIESTH KEVIN LEE

Assignee(s): (std): FRIESTH KEVIN ; FRIESTH KEVIN LEE ; KEVIN LEE FRIESTH

Inventor(s): (std): FRIESTH KEVIN LEE ; FRIESTH KEVIN ; KEVIN LEE FRIESTH

Agent(s): SPRUSON AND FERGUSON; BORDEN LADNER GERVAIS LLP; POTTER CLARKSON LLP; WENPING AND CO;
 HIROE AND ASSOCIATES PATENT PROFESSIONAL CORP; BRIAN J; JESSICA L; BRICK GENTRY PC;
 LAURENZO BRIAN J; MIKKILINENI SRIKANT

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU
 CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN
 IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW
 MX MY NZ NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM
 SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: RACEWAY FOR CULTIVATING AQUATIC ORGANISMS

Abstract: A floatable raceway (1) for cultivating fish comprising a partially submersible tank (2) for containing fish having a base (5), opposing sidewalls (6), a gate assembly (8) having removable gates (10, 11) at a water discharge end of the tank (2), and an end wall assembly (7) at a water intake end of the tank (2) having a ramp (9) extending downwardly to the base (5) and towards the gate assembly (8). The raceway (1) also includes floats (3) extending the lengths of the sidewalls (6) for keeping a top of the tank (2) above water level, an airlift assembly (4) connectable to an air supply for introducing oxygenated water to the tank (2) at the water intake end, and a baffle (14) for directing the flow of water through the tank (2) along the base (5). The raceway (1) has a pair of screen gates (10) allowing the movement of fish wastes therethrough and a pair of stop gates (11) for substantially preventing water from discharging from the tank (2).

Classifications:

International (IPC 8-9): A01K A01K61/00 A01K61/60

A01K63/00 (Advanced/Invention);

A01K61/00 A01K63/00 (Core/Invention)

International (IPC 1-7): A01K61/00 A01K63/00

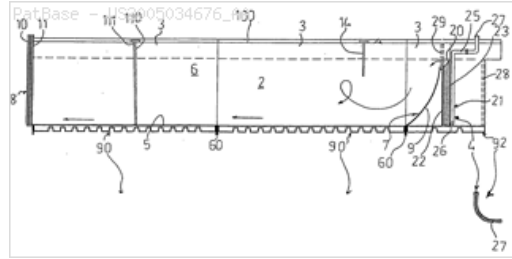
CPC: A01K61/60 Y02A40/826

European: A01K61/00F

US: 119/200 119/219

JP F-Term: 2B104 2B104/CA01 2B104/CB10 2B104/CB15 2B104/CB22 2B104/CB23 2B104/CC02

JP F-Index: A01K61/60/322 A01K63/00/C A01K63/00/E



Family:

Publication number	Publication date	Application number	Application date
AU2001008885 A0	20011206	AU2001PR08885	20011115
AU2002336790 AA	20030526	AU20020336790	20021030
AU2002336790 BB	20080724	AU20020336790	20021030
AU888501 A0	20011206	AU2001PR08885	20011115
CN1607903 A	20050420	CN20028026005	20021030
HK1076988 A1	20060203	HK20050109019	20051013
HK1076988 A3	20060203	HK20050109019	20051013
JP2005508644 T2	20050407	JP20030543394T	20021030
NZ533337 A	20051125	NZ20020533337	20021030
TH58919 A	20031013	TH20021004241	20021114
TW200303720 A	20030916	TW20020133571	20021114
US2005034676 AA	20050217	US20020494521	20021030
US7287488 BB	20071030	US20020494521	20021030
WO03041494 A1	20030522	WO2002AU01469	20021030

Priority:

AU2001008885 20011115 AU2001PR08885 20011115 AU20020336790 20021030
WO2002AU01469 20021030

Probable Assignee: TOTAL AQUA MANAGEMENT SYSTEMS PTY LTD

Assignee(s): (std): MCVEIGH BROS PTY LTD ; MCVEIGH PAUL ; TAYLOR MARK ; TOTAL AQUA MAN SYSTEMS PTY LTD

Assignee(s): TOTAL AQUA MANAGEMENT SYSTEMS PTY LTD

Inventor(s): (std): TAYLOR MARK ; MCVEIGH PAUL ; PAUL MCVEIGH ; MARK TAYLOR

Agent(s): CULLENS PTY LTD; SPRUSON AND FERGUSON; CULLENS PATENT AND TRADE MARK ATTORNEYS; CLT PATENT AND TRADEMARK HK LTD; HOFFMAN WASSON AND GITLER; HOFFMAN WASSON AND GITLER PC

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ OM PH PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

14) Family number: 47488650 (US2010278771A)

© PatBase

Title: OPTICALLY CLEAR BIOFOULING RESISTANT COMPOSITIONS AND METHODS FOR MARINE INSTRUMENTS

Abstract: An optically clear biofouling resistant coating compositions specially formulated for very high light transmission and more particularly coating compositions which can be applied to marine instruments and sensors. The compositions provide a biofouling resistant coating on the surface of the marine instruments and sensors which prevents underwater organisms from adhering and growing on the surfaces of the structures over a long period of time.

Classifications:

International (IPC 8-9): A01N55/00 A01N55/10 A01P1/00 A01P13/00

A01P15/00 A01P17/00 B05D1/36 B05D3/00 C08L75/04 C09D183/04

C09D5/14 C09D5/16 (Advanced/Invention)

CPC: A01N55/00 C08L75/04 C09D5/1693 C09D5/1625 C09D7/61

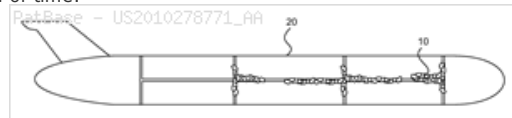
C09D7/62 C09D183/04 C08K3/36 C08K9/06 C08L83/04 C08L2205/02

C09D5/14 C09D5/1675

European: A01N55/00 C09D183/04 C09D5/14 C09D5/16H3K C09D7/12D2 C09D7/12D2B M08K3/36 M08K9/06 M08L205/02

M08L83/04

US: 424/78.09 424/78.090P 427/299 427/299S 427/407.1 427/407.100S 428/354



Family:

Publication number	Publication date	Application number	Application date
EP2363438 A1	20110907	EP20110155861	20110224
US2010278771 AA	20101104	US20100714129	20100226
US2017114230 AA	20170427	US20170400855	20170106
US9562163 BB	20170207	US20100714129	20100226
US10179862 BB	20190115	US20170400855	20170106

Priority:

US20090155860P 20090226 US20100714129 20100226 US20170400855 20170106

Probable Assignee: MID MOUNTAIN MATERIALS INC**Assignee(s):** (std): DAS AMULYA K ; KNAPP JOHN ; LOBE HENRY ; MID MOUNTAIN MAT INC ; MOFFAT GARY ; SEV MARINE TECHNOLOGIES LLC ; SEVERN MARINE TECH LLC**Assignee(s):** MID MOUNTAIN MATERIALS INC ; SEVERN MARINE TECHNOLOGIES LLC**Inventor(s):** (std): DAS AMULYA K ; LOBE HENRY ; KNAPP JOHN ; MOFFAT GARY ; LOBE HANK**Agent(s):** KALHAMMER GEORG; DOBE LAW GROUP LLC; CHRISTENSEN OCONNOR JOHNSON KINDNESS PLLC; CHRISTENSEN O CONNOR JOHNSON KINDNESS PLLC**Designated states:** AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR**15) Family number: 8349689** (US5113792A)

© PatBase

Title: ARTIFICIAL REEF MODULE

Abstract: An improved artificial reef module for creating a feeding and shelter habitat for fish is disclosed. The artificial reef module includes a column of vertically or horizontally arranged sheets of corrugated material. The corrugated channels of each sheet run transverse to the adjacent sheet, thereby providing a system of complex channels and passageways within the module. Additionally, the flutes of one sheet may have a different height from the flutes of an adjacent sheet, thereby adding to the complexity of the passage system.

Classifications:**International (IPC 8-9):** A01K61/00 E02B3/14 (Advanced/Invention);

E02B3/14 (Advanced/Non-invention);

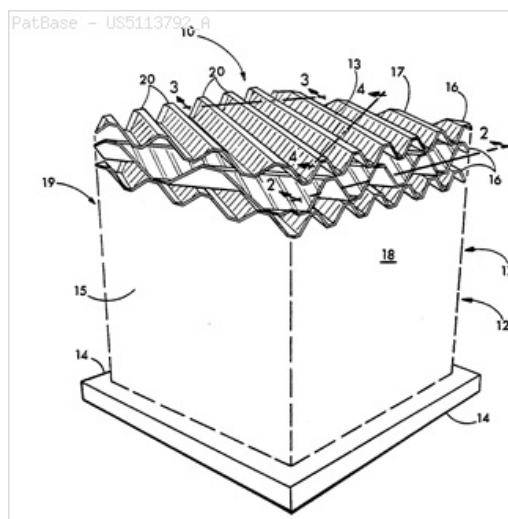
A01K61/00 E02B3/14 (Core/Invention)

International (IPC 1-7): A01K61/00 E02B3/08 E02B3/14 E02D29/00**CPC:** A01K61/70 Y02A40/83**European:** A01K61/00E**US:** 119/221 119/3 119/4 405/25 405/30**JP F-Term:** 2B003 2B003/AA01 2B003/BB06 2B003/CC02 2B003/CC05

2B003/DD02 2B003/DD03 2B003/EE02 2D018 2D018/EA11 2D118

2D118/AA23 2D118/AA25 2D118/BA07 2D118/CA01 2D118/CA08

2D118/DA06 2D118/GA11 2D118/GA22

JP F-Index: A01K61/00/311 A01K61/70 E02B3/14**Family:**

Publication number	Publication date	Application number	Application date
AT150824 E	19970415	AT19920925008T	19920519
AU199331220 A1	19930302	AU19930031220	19920519
AU662192 B2	19950824	AU19930031220	19920519
BRPI9206031 A	19941122	BR1992PI06031	19920519
DE69218594 D1	19970430	DE19926018594	19920519
EP0586623 A1	19940316	EP19920925008	19920519
EP0586623 A4	19940420	EP19920925008	19920519
EP0586623 B1	19970326	EP19920925008	19920519
JP6507952 T2	19940908	JP19930501192T	19920519
US5113792 A	19920519	US19910705024	19910522
WO9303229 A2	19930218	WO1992US04174	19920519
WO9303229 A3	19930429	WO1992US04174	19920519

Priority:

US19910705024 19910522 WO1992US04174 19920519

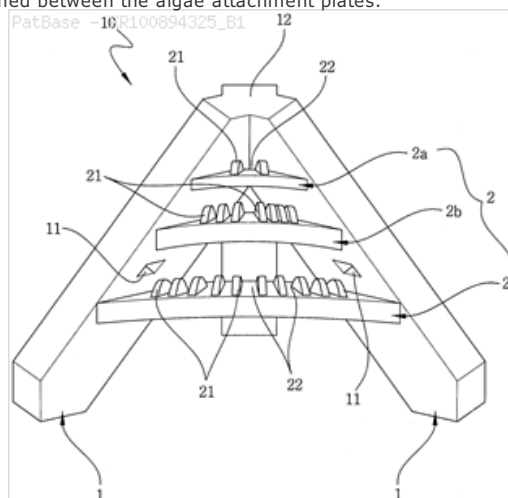
Probable Assignee: GREEN RAY E**Assignee(s):** (std): BARTON G JONES ; BLANCHER ELDON C ; BLANCHER ELDON C II ; BLANCHER II ELDON C ; ELDON C BLANCHER II ; JONES BARTON G ; GREENE RAY E ; GREEN RAY E ; RAY E GREENE**Assignee(s):** JONES BARTON G MADISON WIS US ; GREENE RAY E COLLEGE PARK GA US ; BLANCHER ELDON C MOBILE ALA US**Inventor(s):** (std): BLANCHER II ELDON C ; GREEN RAY E ; BLANCHER ELDON C II ; BLANCHER ELDON C ; GREENE RAY E ; JONES BARTON G**Inventor(s):** ELDON C BLANCHER ; RAY E GREENE ; BARTON G JONES ; ELDON C BLANCHER II ; BLANCHER ELDON C MOBILE ALA US ; JONES BARTON G MADISON WIS US ; GREENE RAY E COLLEGE PARK GA US**Agent(s):** FREEHILLS PATENT AND TRADE MARK ATTORNEYS; FREEHILLS PATENT ATTORNEYS; FPA PATENT ATTORNEYS PTY LTD**Designated states:** AT AU BB BE BF BG BJ BR CA CF CG CH CI CM CS DE DK ES FI FR GA GB GN GR HU IT JP KP KR LI LK LU MC MG ML MN MR MW NL NO PL RO RU SD SE SN TD TG

Title: ARTIFICIAL REEF FOR SEAWEED FOREST WITH TRIPOD TYPE

Abstract: A tripod type artificial reef for seaweed forest is provided, which simplifies the structure of the fish reef and reduces the cost according to the manufacture of the fish reef and facility. A tripod type artificial reef for seaweed forest comprises: a support leg(1) which is arranged in the form of tripod at the regular interval; a connection plate(2) which is installed in the lamination type along the space; and an algae attachment plate(21) which is fixed at the regular interval along the upper side of each connection plate. A concealment space(22) for shellfish or fry is formed between the algae attachment plates.

Classifications:

International (IPC 8-9): A01G33/00 A01K61/00 A01K63/00 A01K67/00 E02B3/00 (Advanced/Invention);
A01K61/00 (Advanced/Non-invention);
A01G33/00 A01K61/00 A01K63/00 A01K67/00 E02B3/00 (Core/Invention)
CPC: Y02A40/81 Y02A40/88 A01K61/70 E02B3/046



Family:

Publication number	Publication date	Application number	Application date
AU2010200201 AA	20100805	AU20100200201	20100118
AU2010200201 BB	20120216	AU20100200201	20100118
CN101861826 A	20101020	CN201010130445	20100119
KR100894325 B1	20090424	KR20090004317	20090119

Priority:

KR20090004317 20090119

Probable Assignee: HAEJOO ENC CO LTD

Assignee(s): (std): HAEJOO ENC CO LTD

Assignee(s): HAEJOO ENC CO

Inventor(s): (std): PAIK SANG HYUN ; HYUN PAIK SANG

Inventor(s): SANG HYUN PAIK

Agent(s): CULLENS PATENT AND TRADE MARK ATTORNEYS; CULLENS PTY LTD; HAEJOO PTY LTD

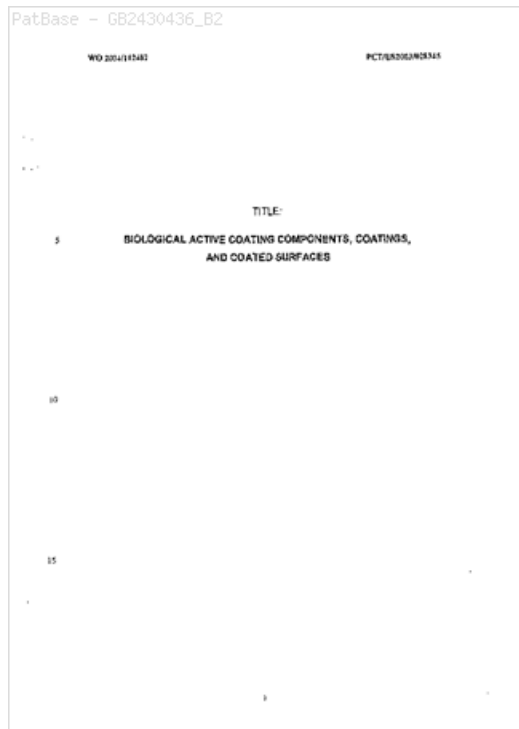
Title: BIOLOGICAL ACTIVE COATING COMPONENTS, COATINGS, AND COATED SURFACES

Abstract: Disclosed herein are novel coatings and paints comprising a biomolecule composition, wherein the biomolecule composition comprises a phosphoric triester hydrolase. Also disclosed herein are methods of detoxification of a surface contaminated with an organophosphorus compound by contacting the surface with such a coating or paint. Also disclosed herein are novel coating and paint components derived from microorganisms.

Classifications:

International (IPC 8-9): A01N A01N63/00 A61F2/00 A61K38/46
A61K38/48 A61K38/54 A61K39/00 A61K47/48 A62D3/00 A62D3/02
A62D5/00 C09D C09D201/00 C09D5/00 C09D5/02 C09D5/14 C09D5/16
C09D7/12 C09J11/02 C12M1/34 C12N C12N11/08 C12N9/00 C12N9/14
C12N9/16 C12N9/48 C12N9/88 C12N9/90 C12S9/00 (Advanced/Invention);
A62D101/02 A62D101/45 C07K17/00 C12N11/00 C12N11/08 C12N9/14
C12N9/16 (Advanced/Non-invention);
A61K38/43 A62D3/00 C09D201/00 C09J11/02 C12N9/14 C12N9/48
C12S9/00 (Core/Invention);
C07K17/00 C12N9/14 C12N9/16 (Core/Non-invention);
C09D C12N (Subclass/Invention)
International (IPC 1-7): A01N63/00 A61F2/00 A61K38/46 A61K38/48
A61K39/00 A61K47/48 C09D5/00 C09D5/16 C09D7/12 C12M1/34
C12N11/08 C12N9/00 C12N9/14 C12N9/88 C12N9/90
CPC: C09D5/1637 A61L2/00 A62D2101/45 C09D5/30 C09J11/08
A62D5/00 C12N9/00 C12N9/14 C12N9/88 C12N9/90 A61K47/50
C09D7/63 C09D7/65 C09D5/00 A62D3/02 A62D2101/02 A62D2101/26
C08L89/00 C09D5/025 C09D5/14 C09D5/34 C09J11/02 C12N9/16
C12N11/08 C12N11/16
European: A61K47/48 A61L2/00 A62D3/00F A62D3/00M12F
A62D3/00M2 A62D3/02 C09D5/00 C09D5/02K2 C09D5/14 C09D5/16C7
C09D5/30 C09D5/34 C09D7/12D4 C09D7/12M C09J11/02 C09J11/08

C12N11/08 C12N11/16 C12N9/00 C12N9/14 C12N9/16 C12N9/88
C12N9/90 K62D101/02 K62D101/26 K62D101/45 M08L89/00
US: 106/124.1 106/150.1 106/150.3 106/153.1 106/155.1 106/18.32
424/185.1 424/185.100S 424/423 424/423S 424/94.2 424/94.200P
424/94.6 424/94.600P 424/94.63 424/94.630S 427/385.5 435/195
435/195S 435/212 435/212S 435/262.5 435/264 435/287.2 524/17



Family:

Publication number	Publication date	Application number	Application date
AU2003304222 AA	20050104	AU20030304222	20030909
AU2003304222 BB	20100204	AU20030304222	20030909
AU2003304222 BH	20100603	AU20030304222	20030909
AU2010201732 AA	20100527	AU20100201732	20100430
CA2538124 AA	20060307	CA20032538124	20030909
CA2538124 C	20100713	CA20032538124	20030909
EP1551927 A1	20050713	EP20030816944	20030909
EP1660596 A1	20060531	EP20040718588	20040308
GB200506979 A0	20050525	GB20050006979	20030909
GB200616715 A0	20061004	GB20060016715	20030909
GB2410249 A1	20050727	GB20050006979	20030909
GB2410249 B2	20061213	GB20050006979	20030909
GB2430436 A1	20070328	GB20060016715	20030909
GB2430436 B2	20070606	GB20060016715	20030909
HK1085234 A1	20060818	HK20060107134	20060622
HK1085234 A3	20060818	HK20060107134	20060622
HK1102286 A1	20080321	HK20070110394	20070925
HK1102286 A3	20071109	HK20070110394	20070925
IL167413 A1	20101230	IL20030167413	20030909
IL174122 A0	20060801	IL20060174122	20060305
IL174122 A1	20110927	IL20040174122	20040308
IL208769 A0	20101230	IL20030208769	20030909
IL214668 A0	20110927	IL20110214668	20110815
IL214668 A1	20130131	IL20040214668	20040308
IL214669 A0	20110927	IL20110214669	20110815
IL214669 A1	20130131	IL20040214669	20040308
IL214670 A0	20110927	IL20110214670	20110815
IL214670 A1	20130131	IL20040214670	20040308
IL214671 A0	20110927	IL20110214671	20110815
IL214671 A1	20130131	IL20040214671	20040308
IL214672 A0	20110927	IL20110214672	20110815
IL214672 A1	20130131	IL20040214672	20040308
US2004109853 AA	20040610	US20030655345	20030904
US2004175407 AA	20040909	US20040792516	20040303
US2009238811 AA	20090924	US20080243755	20081001
US2010248334 AA	20100930	US20060368087	20060303
US2014193889 AA	20140710	US20140151455	20140109
US2015328490 AA	20151119	US20150795608	20150709
WO04112482 A2	20041229	WO2003US28345	20030909
WO04112482 C1	20050506	WO2003US28345	20030909
WO05026269 A1	20050324	WO2004US07263	20040308

Priority:

US20020409102P 20020909 US20030655345 20030904 US20030665345 20030904
AU20030304222 20030909 GB20050006979 20030909 WO2003US28345 20030909

US20040792516 20040303 WO2004US07263 20040308 US20060368087 20060303
US20070976676P 20071001 US20080243755 20081001 AU20100201732 20100430
US20140151455 20140109 US20150795608 20150709

Probable Assignee: REACTIVE SURFACES LTD

Assignee(s): (std): MCDANIEL C ; MCDANIEL C S ; REACTIVE SURFACES LTD ; MCDANIEL STEVEN C ; MCDANIEL C STEVEN ; WALES MELINDA E ; STEVEN MCDANIEL C ; STEVEN C MCDANIEL ; CARVAJAL JUAN CARLO

Assignee(s): CSTEVEN MCDANIEL ; C MCDANIEL ; C STEVEN MCDANIEL ; REACTIVE SURFACES LTD LLP

Inventor(s): (std): MCDANIEL C STEVEN ; MCDANIEL STEVEN C ; WALES MELINDA E ; CARVAJAL JUAN CARLO

Inventor(s): C STEVEN MCDANIEL ; CSTEVEN MCDANIEL ; MCDANIEL C ; STEVEN C MCDANIEL

Agent(s): WRAYS; RIDOUT AND MAYBEE LLP; ELLA CHEONG HONG KONG LTD; SANFORD TCOLB AND CO; C STEVEN MCDANIEL C O DAFFER MCDANIEL LLP; DAFFER MCDANIEL LLP

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NA NE NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

18) Family number: 85844 (PH20877A)

PatBase

Title: ALGAL CULTURING REEF UNIT, ARTIFICIAL REEF UNIT AND ARTIFICIAL CULTURING AND FISHING FIELD UNIT

Abstract: ALGAL CULTURING REEF UNIT, ARTIFICIAL REEF WIT AND ARTIFICIAL CULTURING AND FISHING FIELD UNIT
ABSTRACT .An artificial algal culturing reef unit, an arti ficial reef unit and an artifiolal culturing and fishing area unit, aimed at raising or culturing algas, fishes and shell-fishes, are usually Submerged 1Ji a shallow sea Ilone with a depth ranging between 5 and 15 meters. These units are required to be resistant to high waves and fast oceanic currents usually enoouentered in such sea zone. Although concrete materials are suitable in consideration of its strength and costs, an alkali is neoessarily emitted from their surfaces that is extremely harmful to diatoms and algae as well as fishes and shellt~sbes. The present in vention resides in an algal culturing reef unit and an artifiolal reef unit wherein a layer ot iron sulfate or iron (II) sulfate or a layer of an acid and iron oxide powders are formed on the surface of concrete blocks for penetration into the inside of the blocks, whereby the al kali from the concrete is neutralized with an acid from the iron sulfate or iron (II) sulfate or an acid contained in said layer and iron oxides liked by algae or fishes and shellfishes are caused to exist in abundance on the reef surfaces.

Classifications:

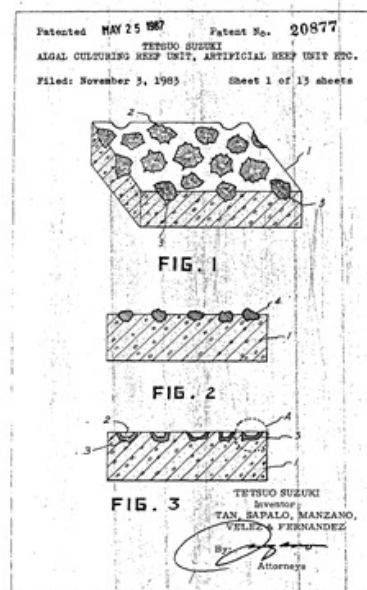
International (IPC 8-9): A01K61/00 (Advanced/Invention);

A01K61/00 (Core/Invention)

International (IPC 1-7): A01K61/00

CPC: Y02A40/81

PatBase - PH20877_A



Family:

Publication number	Publication date	Application number	Application date
PH20877 A	19870525	PH19830029784	19831103

Priority:

PH19830029784 19831103

Probable Assignee: TOKYU MUSASHI MANUFACTURING CO

Assignee(s): (std): TOKYU MUSASHI MANUFACTURING CO ; TOKYU MUSASHI MFG CO

Assignee(s): TOKYU MUSASHI MFG CO LTD ; TOKYU MUSASHI MANUFACTURING CO LTD

Inventor(s): (std): TETSUO SUZUKI

Inventor(s): SUZUKI TETSUO

Title: FILTRATION SYSTEM FOR USE IN AQUARIUMS

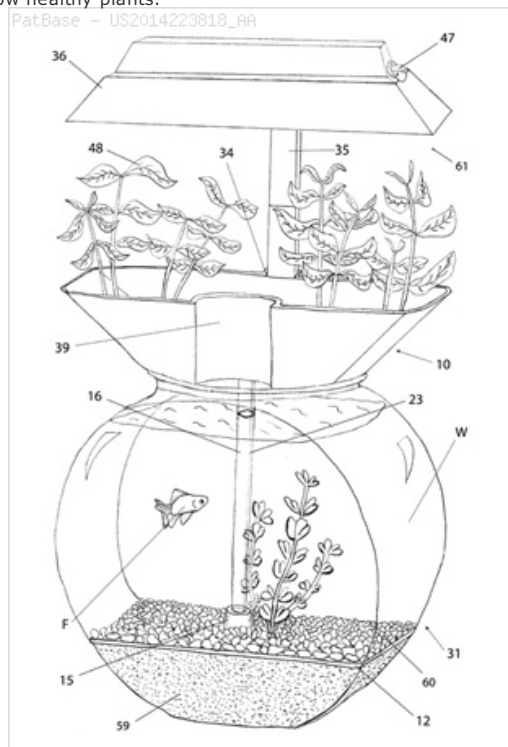
Abstract: An inexpensive aquaponic conversion kit for aquariums that uses a combination of mechanical, biological, and chemical filtration components along with terrestrial plants to filter aquarium water. The system includes a funnel shaped undergravel filter that concentrates solid waste towards an airlift pump that transports solid and liquid waste into a planter containing terrestrial plants. These waste nutrients are trapped in the planter in layers of activated carbon and filamentous material that adsorb and trap waste particles where the roots of plants turn the waste into biological material and aid in cleaning the tank. A grow light and hood are able to be attached to a bracket at the back of the planter to grow healthy plants.

Classifications:

International (IPC 8-9): A01G1/00 A01G31/02 (Advanced/Invention)

CPC: A01G31/02 A01K63/04 Y02P60/216 A01K63/045

US: 47/59R 47/62R

**Family:**

Publication number	Publication date	Application number	Application date
US2014223818 AA	20140814	US20130766117	20130213

Priority:

US20130766117 20130213

Probable Assignee:

COGHLAN RYAN

Assignee(s): (std):

COGHLAN RYAN

Inventor(s): (std):

COGHLAN RYAN

Title: METHOD AND USE OF NANOPARTICLES TO BIND BIOCIDES IN PAINTS

Abstract: This invention relates to the use of a combination of selected substances in paint to prevent the settlement and growth of different biofouling organisms with a reduced negative effect on the ecosystems compared to present methods.

Classifications:

International (IPC 8-9): A01N25/04 A01N31/00 A01N33/00 A01N43/00 A01N43/48 A01N43/50 A01N55/02 A01N59/16 A01N59/20 A01P1/00 A01P15/00 A01P17/00 A61K31/41 A61K31/415 A61K31/55 A61K31/555 B05D5/00 B82B3/00 B82Y40/00 C07D C07D233/58 C07F1/08 C07F3/06 C07F5/06 C09D C09D5/16 C09D7/12 (Advanced/Invention); C07D233/58 C09D5/16 (Advanced/Non-invention); A01N25/04 A01N31/00 A01N33/00 A01N43/00 A01N43/48 A01N55/00 A01N59/16 A01P1/00 A01P15/00 A01P17/00 A61K31/41 A61K31/415 A61K31/55 A61K31/555 B05D5/00 C07D233/00 C07F1/00 C07F3/00 C07F5/00 C09D5/16 C09D7/12 (Core/Invention); C07D233/00 (Core/Non-invention); C07D C09D (Subclass/Invention)

CPC: Y10T428/2982 Y10T428/2991 Y10T428/2993 C09D5/1625

C07D233/56 C08K3/22 C08K5/3462 C08K9/12 C09D7/61

European: C07D233/56 C09D5/16C3K C09D7/12D2 M08K3/22 M08K5/3462 M08K9/12

US: 106/15.05 106/18.32 106/18.320P 106/18.33 106/18.35 106/18.36 424/405 424/635 424/638 424/641 424/691 424/722 424/78.09 427/384 427/428.01 427/429 428/402 428/403 428/404 514/184 514/184S 514/191 514/191S 514/241 514/396 514/396S 514/397 514/397S 514/408 514/494 514/499 514/500 514/588 514/595 514/596 514/600 514/63 514/740 514/741 514/772 523/122 523/177 548/402 548/402S

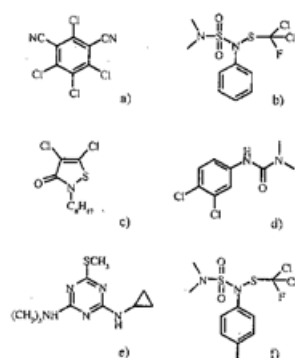
JP F-Term: 3C082 4H011 4H011/AD01 4H011/BA06 4H011/BB09

4H011/BB18 4H011/BC18 4H011/DD07 4J038 4J038/HA21/6 4J038/JA05
 4J038/JB32 4J038/KA20 4J038/NA05 4J038/NA27 4J038/PB07
JP F-Index: A01N25/04/103 A01N43/50/Z A01N59/16/Z A01N59/20/Z
 A01P1/00 A01P17/00 B82Y30/00 B82Y5/00 C09D5/16 C09D7/12
JP Facet: ZAB

PatBase - US2006201379_AA

Patent Application Publication Sep. 14, 2006 Sheet 1 of 6 US 2006/0201379 A1

Figure 1.



Family:

Publication number	Publication date	Application number	Application date
CA2600646 AA	20070831	CA20062600646	20060313
CA2600646 C	20130730	CA20062600646	20060313
CN101166797 A	20080423	CN200680007865	20060313
CN101166797 B	20110316	CN200680007865	20060313
DK1856215 T3	20160815	DK20060717003T	20060313
EP1856215 A1	20071121	EP20060717003	20060313
EP1856215 B1	20160504	EP20060717003	20060313
ES2584440 T3	20160927	ES20060717003T	20060313
HK1118305 A1	20111007	HK20080109473	20080826
HK1118305 A1	20090206	HK20080109473	20080826
HK1118305 A3	20090206	HK20080109473	20080826
HK1118305 B	20111007	HK20080109473	20080826
JP2008533237 T2	20080821	JP20080500676T	20060313
JP5006869 B2	20120822	JP20080500676T	20060313
KR101255384 B1	20130417	KR20077023220	20060313
KR20070116090 A	20071206	KR20077023220	20060313
PL1856215 T3	20170831	PL20060717003T	20060313
PT1856215 T	20160802	PT20060717003T	20060313
TR201610079 T4	20160822	TR20160010079T	20060313
US2006201379 AA	20060914	US20060373661	20060310
US2008249078 AA	20081009	US20070827466	20070712
US2009270357 AA	20091029	US20090456775	20090623
US7311766 BB	20071225	US20060373661	20060310
US7662222 BB	20100216	US20090456775	20090623
WO06096128 A1	20060914	WO2006SE00318	20060313

Priority:

US20050661083P 20050311 US20060373661 20060310 EP20060717003 20060313
 WO2006SE00318 20060313 US20070827466 20070712 US20090456775 20090623

Probable Assignee: I TECH AB C O VITA NOVA VENTURES

Assignee(s): (std): FANT CAMILLA ; I TECH AB ; NYDEN MAGNUS ; TECH AB I ; TECH I

Assignee(s): I TECH AB C O VITA NOVA VENTURES ; I TECH C O VITA NOVA VENTURES AB ; I TECH

Inventor(s): (std): NYDEN MAGNUS ; FANT CAMILLA ; CAMILLA FANT ; MAGNUS NYDEN

Agent(s): SMART AND BIGGAR; FAGERLIN HELENE; DEL VALLE SONIA; CHAN TANG AND KWOK; AYLIN SENER; LYNN E BARBER; LYNN E

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LC LI LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MW MX MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SM SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

21) Family number: 2438928 (CA1202839A)

© PatBase

Title: ALGAL CULTURING REEF UNIT, ARTIFICIAL REEF UNIT AND ARTIFICIAL CULTURING AND FISHING FIELD UNIT

Abstract: An artificial algal culturing reef unit, an artificial reef unit and an artificial culturing and fishing area unit, aimed at raising or culturing algae, fishes and shellfishes are usually submerged in a shallow sea zone with a depth ranging between 5 and 15 meters. These units are required to be resistant to high waves and fast oceanic currents usually encountered in such sea zone. Although concrete materials are suitable in consideration of its strength and costs, an alkali is necessarily emitted from their surfaces that is extremely harmful to diatoms and algae as well as fishes and shellfishes. The present invention resides in an algal culturing reef unit and an artificial reef unit wherein a layer of iron sulfate or iron (II) sulfate or a layer of an acid and iron oxide powders are formed on the surface of concrete blocks for penetration into the inside of the blocks, whereby the alkali from the concrete is neutralized with an acid from the iron sulfate or iron (II) sulfate or an acid contained in said layer and iron oxides liked by algae or fishes and shellfishes are caused to exist in abundance on the reef surfaces.

Classifications:

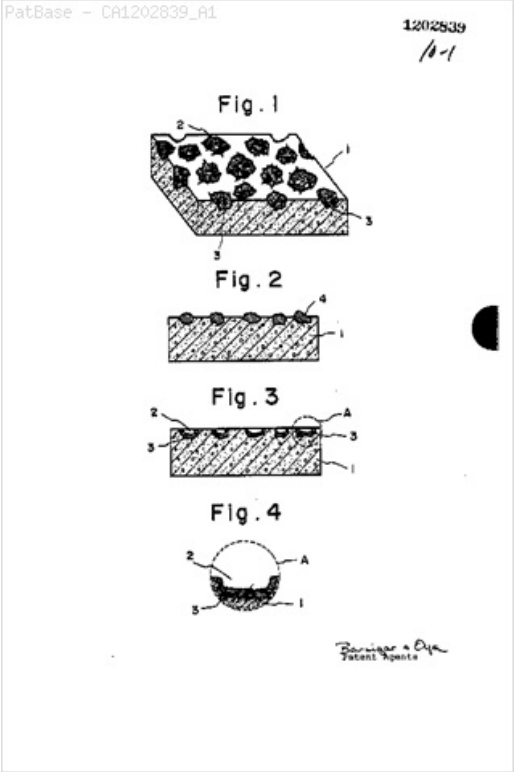
International (IPC 8-9): A01K61/00 A01K61/70

A01K61/78 (Advanced/Invention);

A01K61/00 (Core/Invention)

International (IPC 1-7): A01K61/00

CPC: Y02A40/81 Y02A40/83 Y02A40/84



Family:

Publication number	Publication date	Application number	Application date
CA1202839 A1	19860408	CA19830437164	19830920

Priority:

CA19830437164 19830920

Probable Assignee: TOKYU MUSASHI MANUFACTURING CO

Assignee(s): (std): TOKYU MUSASHI MANUFACTURING CO ; TOKYU MUSASHI MFG CO

Assignee(s): TOKYU MUSASHI MFG CO LTD ; TOKYU MUSASHI MANUFACTURING CO LTD ; SUZUKI TETSUO

Inventor(s): (std): SUZUKI TETSUO

Agent(s): RIDOUT AND MAYBEE LLP

22) Family number: 63564956 (US2018049410A)

© PatBase

Title: EPHEMERAL SUBSTRATES FOR OYSTER AQUACULTURE

Abstract: Provided is novel ephemeral substrate material for growing oysters that alleviates concerns related to adding large quantities of permanent fill to estuarine water and promotes high rates of oyster survival and growth, high meat quality and market-favorable shell-shape of cultured oysters, along with artificial oyster growing structures prepared from the ephemeral substrate material and methods of using the same.

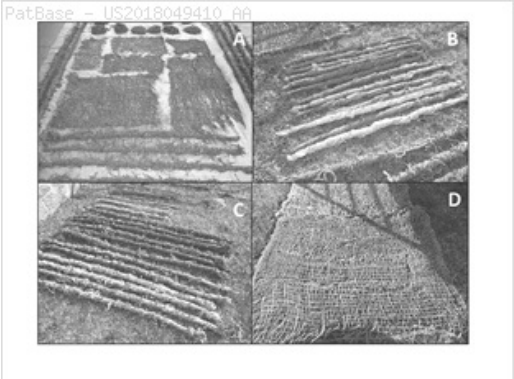
Classifications:

International (IPC 8-9): A01K61/00 A01K61/54 A01K61/70

E02B3/04 (Advanced/Invention)

CPC: Y02A40/83 A01K61/70 E02B3/046 A01K61/54 A01K61/00

Y02A40/81 Y02A40/822



Family:

Publication number	Publication date	Application number	Application date
AU2016229172 AA	20170928	AU20160229172	20160304
CA2978252 AA	20170829	CA20162978252	20160304
EP3264890 A1	20180110	EP20160762233	20160304
EP3264890 A4	20190227	EP20160762233	20160304
US2018049410 AA	20180222	US20160556233	20160304
WO16144786 A1	20160915	WO2016US20966	20160304

Priority:

US20150129563P 20150306 US20160556233 20160304 WO2016US20966 20160304

Probable Assignee: UNIV NORTH CAROLINA CHAPEL HILL

Assignee(s): (std): UNIV NORTH CAROLINA CHAPEL HILL ; UNIV OF NORTH CAROLINA AT CHAPEL HILL

Assignee(s): CESSNA DAVID ; LINDQUIST NIELS ; OF NORTH CAROLINA AT CHAPEL HILL UNIV

Inventor(s): (std): LINDQUIST NIELS ; CESSNA DAVID

Agent(s): WATERMARK INTELLECTUAL PROPERTY PTY LTD; GOUDREAU GAGE DUBUC; LAVERY DE BILLY LLP;
KRANSELL AND WENNBORG KB; SCHWARTZMAN ROBERT A

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU
CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN
IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW
MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM
SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW