

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO	
RAD: 13-300363- -4	FECHA: 2016-03-08 12:24:43
DEP: 2020 DIRECCION DE NUEVAS CREACIONES	EVE: 1 REGISTRO/DEPOSITO/CONCESION/DEPOSITO
TRA: 2 PATENTES DE INVENCION	FOLIOS: 8
ACT: 519 TRASLADOINFORME	

DIRECCIÓN DE NUEVAS CREACIONES

2020
Bogotá, D.C.,

Abogado(a)/Señor(a)
LAURA MARCELA MANZANO JIMENEZ

Asunto: Radicación: 13-300363- -4
Trámite: 2
Evento: 1
Actuación: 519
Oficio: 2389
Folios: 8

Patente de Invención	X			Patente de Modelo de Utilidad	
Vía Nacional	X				
Vía PCT (Fase Nacional)		Capítulo I		Capítulo II	
No. Solicitud Internacional					
Fecha de Presentación Internacional					

Como resultado del examen de fondo realizado, con fundamento en el Artículo 45 de la Decisión 486 de la Comisión de la Comunidad Andina, se comunica:

1. Documentos estudiados

Descripción:	Rad. N° 13-300363-00000-0000	26/diciembre/2013
Reivindicaciones:	Rad. N° 13-300363-00000-0000	26/diciembre/2013
Dibujos:	Rad. N° 13-300363-00000-0000	26/diciembre/2013

2. Objeto de la invención

De acuerdo con lo establecido en el numeral 1.2.2.2 del Capítulo Primero del Título X de la Circular Única para efectos del examen de patentabilidad, se tendrá en cuenta la tasa pagada por el solicitante al momento de comenzar el examen para las reivindicaciones adicionales; esto es que cuando la solicitud contenga más de diez (10) reivindicaciones y no se haya pagado la tasa complementaria, sólo se estudiarán las cubiertas por la tasa pagada. Por lo tanto, se estudiaran las reivindicaciones 1 a 20.

Título de la solicitud: “Proceso para la remoción de cationes empleando desechos de café” (Pág. 1, radicado N° 13-300363-00000-0000).

El problema planteado en esta solicitud, consiste en la necesidad de obtener un proceso de biorretención de cationes especialmente metales pesados utilizando borra o cuncho de café.

Para resolver este problema técnico, la solicitud en estudio propone un procedimiento para la retención de cationes de soluciones acuosas, especialmente metales pesados, empleando los residuos del café de la preparación de la bebida llamados comúnmente borra o cuncho del café, dicho procedimiento consta de los siguientes pasos: tomar los residuos de la preparación de la bebida de café, llamados borra o cuncho, mezclarlos homogéneamente y secarlos, en condiciones tales que no afecten los componentes propios de la borra, en especial los ácidos húmicos y las proteínas presentes allí, tamizar la borra seca en una malla por debajo de 3 mm y superior a 2 mm tomar la solución que contiene el(los) catión(es) y llevar la concentración de dicho(s) catión(es) a valores inferiores a 600 ppm, tomar la solución resultante y llevarla a un pH entre 3 y 7, poner en contacto la solución resultante con la borra tratada ya sea de forma continua o por cochadas y recuperar la solución libre de cationes.

El objeto de la presente solicitud se relaciona con la Clasificación Internacional de Patentes C08J 11/00.

3. De la solicitud de patente

Reivindicaciones (Art 30 D 486)

El capítulo reivindicatorio no es claro porque:

- Los términos de las reivindicaciones 1, 3, 13, 16 y 19, *“en condiciones tales”, “por debajo”, “por encima”,* son imprecisos, por lo cual no permite distinguir la invención del estado de la técnica. Se sugiere sustituirlo por un término preciso o un rango concreto.
- En la reivindicación 1, las expresiones: *“los residuos de la preparación de la bebida de café”, “las proteínas”, “poner en contacto”, “recuperar”* son generales y no definen con claridad las cantidades o productos a los cuales se refieren, por lo tanto, incluyen todas las posibles alternativas presentes o futuras, se sugiere remplazarlo por las características esenciales para definir con precisión lo que se desea proteger.
- En la reivindicaciones 1, 4, 5, 6, 13, 16 y 19, los términos: *“y llevar la concentración de dicho(s) catión(es) a valores inferiores a 600 ppm”, “que no afecten los componentes propios de la borra”, “Recuperar la solución libre de cationes”, “CARACTERIZADO PORQUE la concentración de el(los) catión(es) en la solución a tratar con borra se lleva a menos de 250 ppm”, “CARACTERIZADO PORQUE la concentración de el(los) catión(es) en la solución a tratar con borra se lleva a menos de 100 ppm”, “CARACTERIZADO PORQUE la concentración de el(los) catión(es) en la solución a tratar con borra se lleva a menos de 50 ppm”, “CARACTERIZADO PORQUE la concentración de(l) (los) catión(es) está por debajo de 500 ppm”, “CARACTERIZADO PORQUE la concentración del cationes está por debajo de 50 ppm”, “CARACTERIZADO PORQUE la concentración del cationes está por debajo de 500 ppm”,* están representados como un efecto o resultados a obtener, por lo cual no se puede aceptar, debido a que, equivaldría a definir el problema técnico a resolver, además el alcance de esta reivindicación incluiría todas las alternativas presentes o futuras que lleguen a ese resultado, se sugiere remplazarlos por las características esenciales o eliminarlos para dar concisión a las reivindicaciones.
- La reivindicación 1 que tiene por objeto un proceso, sin embargo, aunque muestra la secuencia de etapas técnicas, no se reivindican las etapas técnicas con sus

condiciones técnicas (temperaturas, flujos, presiones, etc), por todo lo anterior estas reivindicaciones no son claras. Se sugiere realizar las aclaraciones respectivas o definir la invención por sus características esenciales y estructurales, teniendo en cuenta de no modificar o ampliar la material ya divulgada.

4. Determinación del Estado de la Técnica

El estado de la técnica se determinó con base en la fecha de presentación de la solicitud: diciembre 26 de 2013, y se encontraron los siguientes documentos que anticipan el objeto de esta solicitud:

Ítem	Documento	Título	Fecha de Publicación
D1	Art 1*	“Copper removal from aqueous systems with coffee wastes as low-cost materials”	23/04/2013
D2	Art 2**	“Removal of lead ions in drinking water by coffee grounds as vegetable biomass”	28/09/2004

* Copper removal from aqueous systems with coffee wastes as low-cost materials; Kyzas, G; E3S Web of Conferences; Vol. 1; 2013.

** Removal of lead ions in drinking water by coffee grounds as vegetable biomass; Tokimoto, T; Journal of Colloid and Interface Science; Vol. 281; 56–61; 2005.

El documento D¹¹ divulga un procedimiento para la eliminación de Cu (II) a partir de soluciones acuosas con residuos de café, los materiales de desecho con ningún tratamiento adicional, como los residuos de café de café pueden actuar como adsorbentes para la eliminación de Cu (II), diez ciclos de adsorción-desorción se llevaron a cabo revelando el fuerte potencial de reutilización de éstos bajo costo adsorbentes; este último fue confirmado desde un enfoque económico breve (Resumen).

El documento D2² divulga un método para reutilizar los residuos de alimentos con fines útiles, se investigó la posibilidad de utilizar café molido para eliminar los iones de plomo en el agua potable. Se estudiaron las características de adsorción de iones de plomo de los granos de café y terrenos midiendo su contenido de grasa y proteína, las isothermas de adsorción de iones de plomo y las tasas de adsorción de iones de plomo (Resumen).

5. Examen de Patentabilidad (Art 14 D486)

Nivel inventivo (Art18 D486)

La reivindicación 1, consiste en: *“Procedimiento para la retención de cationes, especialmente metales pesados, de soluciones que los contengan CARACTERIZADO PORQUE comprende los siguientes pasos: (...)”* (Ver Pág. 13 del Radicado N° 13-300363-00000-0000).

Comparación de las características técnicas esenciales, con las del estado de la técnica:

Características esenciales	D1	D2
Procedimiento para la retención de cationes, especialmente metales pesados, de soluciones que los contengan CARACTERIZADO PORQUE comprende los	En vista de lo anterior, el objetivo de este estudio fue investigar la viabilidad de utilizar los residuos de café sin tratamiento de las cafeterías directamente como biosorbentes	En el presente estudio, se investigó la viabilidad de la reutilización de café molido para eliminar los iones de plomo peligrosos del agua potable. En particular, se estudió la forma en la capacidad de adsorción de los

1 http://www.e3s-conferences.org/articles/e3sconf/pdf/2013/01/e3sconf_ichm13_25004.pdf

2 <http://www.sciencedirect.com/science/article/pii/S0021979704007969>

siguientes pasos:	naturales para la eliminación de metales pesados (Cu (II)) a partir de un medio acuoso sintético. Es un gran interés para el tratamiento de efluentes de metales pesados con residuos naturales no tratados (Pág. 0002, Col. 1, Párr.0001).	granos de café y las instalaciones para la eliminación de iones de plomo se correlaciona con componentes tales como proteínas, grasas y cafeína (Pág. 0057, Col. 1, Párr. 0004).
a. Tomar los residuos de la preparación de la bebida de café, también llamados borra o cuncho, mezclarlos homogéneamente y secarlos,	Residuos de café (en adelante abreviado como UCR) de las cafeterías (...) sólo se secaron en el aire a temperatura ambiente y después se tamizaron (Pág. 0002, Col. 1, Párr. 0003).	Los adsorbentes fueron café molido de cinco tipos de granos de café, arcilla activada (Wako Pure Chemical Industries, Ltd.), alúmina activada (Tomita Pharmaceutical Co., Ltd.), y carbón activado a partir de vapor activado de cáscara de coco (Takeda Chemical Industries, Ltd.).
b. Tamizar la borra seca en una malla por debajo de 3 mm y por encima de 2 mm.	Después se tamizaron (Pág. 0002, Col. 1, Párr. 0003). Tanto los dos tipos de residuos eran en forma de polvo (475-525 micras) después del tamizado (Pág. 0002, Col. 1, Párr. 0003). No menciona que el tamaño de la malla del tamiz esté por debajo de 3 mm y por encima de 2 mm.	Se preparan los granos de café sin procesar (RCB-A (> 1,7 mm), RCB-B (0,5 a 1,7 mm), y RCB-C (<0,5 mm)) (Pág. 0057, Col. 1, Párr. 0004).
c. Tomar la solución que contiene el(los) catión(es) y llevar la concentración de dicho(s) catión(es) a valores inferiores a 600 ppm.	El efecto del pH se llevó a cabo mediante la mezcla de 1 g/L de adsorbente con 50 ml de metal solución de un solo componente (50 mg / L) (Pág. 0002, Col. 1, Párr. 0004).	El adsorbato utilizado para el experimento fue una solución estándar de cloruro de plomo 100mg/L (Wako Pure Chemical Industries, Ltd.) (Pág. 0057, Col. 2, Párr. 0006).
d. Tomar la solución resultante y llevarla a un pH entre 3 y 9.	El valor pH, que varía entre 2 y 12, fue mantenido constante durante todo el proceso de adsorción por micro-adiciones de HNO ₃ (0,01 M) o NaOH (0,01 M) la suspensión se agitó durante 24 h (agitación velocidad = 140 rpm) en un baño de agua para controlar la temperatura a 25 ° C (Julabo SW-21C). El pH óptimo seleccionado fue pH=5 (Pág. 0002, Col. 1, Párr. 0004).	No menciona

e. Poner en contacto la solución resultante con la borra tamizada ya sea de forma continua o por cochadas.	Los experimentos cinéticos se llevaron a cabo mediante la mezcla de 1 g/L de sorbente con 50 ml de metal solución de un solo componente (50 mg/L). Las suspensiones se agitaron durante 24 h a pH = 5 (ambos de Cu (II) y Cr (VI)) en baño de agua a 25 ° C (velocidad de agitación = 140 rpm). Las muestras se recogieron a intervalos fijos (5, 10, 20, 30 min, 1, 2, 3, 4, 5, 6, 12, 24 h). (Pág. 0002, Col. 0002, Párr. 0001). Los experimentos de adsorción-desorción secuenciales en el modo por lotes se llevaron a cabo durante diez ciclos (Pág. 0003, Col. 2, Párr. 0005).	Se prepararon soluciones de cloruro de plomo de concentraciones predeterminadas. A 100 ml de cada solución, se añadieron 10 mg de uno de los adsorbentes seleccionados para el experimento (Pág. 0057, Col. 2, Párr. 0006).
f. Recuperar la solución libre de cationes.	La capacidad máxima de adsorción de los residuos de café puede alcanzar 70 mg/g para la eliminación de Cu (II) (Pág. 1, Párr. 1).	Los resultados experimentales sugieren que las proteínas contenidas en los granos de café y café molido en bruto son responsables de la adsorción de iones de plomo. Esto explica por qué una variedad de granos de café, cuyo contenido de proteínas eran casi lo mismo, exhibe capacidades de adsorción de iones de plomo idénticas. Las tasas de adsorción de iones de plomo por café molido eran directamente proporcionales a las cantidades de café molido añadido a la solución (Pág. 5, Col. 2, Párr. 0003).

Los documentos D1 y D2 se consideran el estado de la técnica más cercano a la invención definida en la reivindicación 1, porque divulga un procedimiento para la eliminación de Cu (II) a partir de soluciones acuosas con residuos de café (D1: Resumen; Pág. 0002, Col. 1, Párr. 0001; Pág. 0002, Col. 1, Párr. 0003; Pág. 0002, Col. 1, Párr. 0004) y un método para reutilizar los residuos de alimentos con fines útiles, se investigó la posibilidad de utilizar café molido para eliminar los iones de plomo en el agua potable (D2: Resumen; Pág. 0057, Col. 1, Párr. 0004; Pág. 0057, Col. 1, Párr. 0004).

La diferencia entre la invención definida en la reivindicación 1 y el procedimiento divulgado en D1, consiste en que este último no menciona que se tamice la borra seca en una malla por debajo de 3 mm y por encima de 2 mm.

No se evidencia un efecto técnico que logre la diferencia entre definir el diámetro de partícula entre 2 mm y 3 mm o valores inferiores a 2 mm, puesto que, la solución de problema técnico ya fue divulgada en el D1, en el cual muestra un procedimiento que utiliza residuos de café sin tratamiento como bioabsorbentes naturales para la eliminación de metales pesados, obteniendo un proceso viable económicamente y efectivo, puesto que, el adsorbente es de fácil regeneración, alta retención y de bajo coste.

Por lo tanto, el problema técnico objetivo que pretende resolver esta invención se puede formular así: “¿Cómo obtener método de forma alternativa a la revelada en D1?”.

Sin embargo, ya era conocido en el estado de la técnica, la aplicación de partículas de café de diferentes tamaños, puesto que, en el documento D2 menciona un proceso que reutiliza el café molido para eliminar iones de plomo peligrosos del agua potable (Pág. 0057, Col. 1, Párr. 0004), los adsorbentes fueron hechos de cinco tipos de granos de café molido; se prepararon los granos de café sin procesar en estos diámetros de partícula (RCB-A (> 1,7 mm), RCB-B (0,5 a 1,7 mm), y RCB-C (<0,5 mm)) (Pág. 0057, Col. 1, Párr. 0004).

En consecuencia, la persona del oficio normalmente versada en la materia, estaría motivada a incluir el café sin procesar con diámetro de partícula mayor a 1.7 mm como es divulgado en D2, en el procedimiento que se divulga en D1, llegando así al objeto de la reivindicación 1, por lo cual se considera obvia.

Asimismo, el documento D1 divulga las características de las reivindicaciones dependientes así:

- La reivindicación 3 Tanto los dos tipos de residuos eran en forma de polvo (475-525 micras) después del tamizado (incluye el rango de tamaño de partícula reivindicado, puesto que, incluye el intervalo valores entre 0.475 a 0.525 mm) (Pág. 0002, Col. 1, Párr. 0003).
- Las reivindicaciones 7 y 8. El valor de pH, que varía entre 2 y 12, fue mantenido constante durante todo el proceso de adsorción por micro-adiciones de HNO₃ (0,01 M) o NaOH (0,01 M) la suspensión se agitó durante 24 h (agitación velocidad = 140 rpm) en un baño de agua para controlar la temperatura a 25 ° C (Julabo SW-21C). El pH óptimo seleccionado fue pH=5 (incluye el rango de pH reivindicado, puesto que, incluye el valor de pH=5) (Pág. 0002, Col. 1, Párr. 0004).
- Las reivindicaciones 15 y 18. Utilizado para la preparación de las soluciones de Cu (II) y Cr (VI) como adsorbato (incluye los cationes reivindicados, puesto que incluye Cu (II) y Cr (IV)) (Pág. 0002, Col. 1, Párr. 0003).
- Las reivindicaciones 16 y 19. El efecto del pH se llevó a cabo mediante la mezcla de 1 g/L de adsorbente con 50 ml de metal solución de un solo componente (50 mg / L) (acoge el intervalo reivindicado, puesto que, incluye 50 ppm) (Pág. 0002, Col. 1, Párr. 0004).
- Las reivindicaciones 17 y 20. El valor de pH, que varía entre 2 y 12, fue mantenido constante durante todo el proceso de adsorción por micro-adiciones de HNO₃ (0,01 M) o NaOH (0,01 M) la suspensión se agitó durante 24 h (agitación velocidad = 140 rpm) en un baño de agua para controlar la temperatura a 25 ° C (Julabo SW-21C). El pH óptimo seleccionado fue pH=5 (incluye el rango de pH reivindicado, puesto que, incluye el valor de pH=5) (Pág. 0002, Col. 1, Párr. 0004).

Asimismo, el documento D2 divulga las características de las reivindicaciones dependientes así:

- La reivindicación 2. los adsorbentes fueron café molido de cinco tipos de granos de café, arcilla activada (Wako Pure Chemical Industries, Ltd.), alúmina activada (Tomita Pharmaceutical Co., Ltd.), y carbón activado a partir de vapor activado de cáscara de coco (Takeda Chemical Industries, Ltd.), sus orígenes y fabricantes son los siguientes: granos de café usados son Coffea robusta (Tailandia), C. arabica (20% Bourbon, el 80% Tipica) (Guatemala), C. arabica (Tipica) (Jamaica), C. arabica (Kent) (Tanzania), y C. arabica (Tipica) (Hawai), se preparan los granos de café sin procesar (RCB-A (> 1,7 mm), RCB-B (0,5 a 1,7 mm), y RCB-C (<0,5 mm)) (acoge el diámetro de partícula reivindicado puesto que incluye valores (> 1,7 mm)) (Pág.

0057, Col. 1, Párr. 0004).

- La reivindicación 12. En el presente estudio, se investigó la viabilidad de la reutilización de café molido para eliminar los iones de plomo peligrosos del agua potable, en particular, se estudió la forma en la capacidad de adsorción de los granos de café y las instalaciones para la eliminación de iones de plomo se correlaciona con componentes tales como proteínas, grasas y cafeína /acoge el catión reivindicado, puesto que, incluye plomo) (Pág. 0057, Col. 1, Párr. 0004).
- La reivindicación 13. El adsorbato utilizado para el experimento fue una solución estándar de cloruro de plomo 100mg/L (Wako Pure Chemical Industries, Ltd.) (acoge el rango de concentración reivindicado, puesto que incluye el valor de 100 ppm) (Pág. 0057, Col. 2, Párr. 0006).
- La reivindicaciones 9, 10, 11 y 14. Fig. 2 muestra la absorción de mercurio por 100 mg de ECG como una función del tiempo. El nivel de concentración del mercurio a 10 mg/L nivel es especialmente captado a partir de 100 ml de 0,1 M de una solución de NaNO₃ a pH 3 y 11, respectivamente. Tanto las curvas muestran una fuerte sorción durante las primeras horas, después se tienden asintóticamente hacia el equilibrio. Un tiempo de espera de 1 día se ha supuesto que ser adecuado para los experimentos por lotes (Pág. 436, Párr. 0001).

Cabe mencionar, que para afectar las reivindicaciones 9, 10, 11 y 14 el examinador en su análisis de nivel inventivo, se basó en su conocimiento general sobre el estado de la técnica y realizó las comparaciones con su apreciación en conjunto, determinando que con tales conocimientos existentes se llega a la invención reivindicada. Sobre el saber general el experto medio, el Tribunal Andino de Justicia ha dicho lo siguiente:

“El experto medio deberá poseer experiencia y contar con un saber general en la materia y con una serie de conocimientos en el campo específico de la invención.”

Dichas reivindicaciones fueron afectadas así: es conocimiento del técnico medianamente versado en la materia que la absorción de mercurio (100 mg) con residuos de café se realiza a pH's entre 3 y 11 (Pág. 436, Párr. 0001) ^[3] y de cationes como indio entre 3,2 y 6,2, a un pH de 3,2, la adsorción era muy baja y aumenta rápidamente entre pH 4,2 y 6,2 (Pág. 2447, Col. 2, líneas 12 a 17) ^[4].

De igual manera, las reivindicaciones dependientes 4, 5 y 6 no mencionan características técnicas adicionales que puedan brindarle nivel inventivo al objeto de la reivindicación 1, puesto que estas se encuentran afectadas por efectos y/o resultados a alcanzar.

6. Conclusión

Los requisitos de Patentabilidad de la presente solicitud están afectados así:

Ítem	Documento	Reivindicaciones afectadas	Requisito que afecta
D1	Art 1	1, 3 a 8 y 15 a 20	Novedad y nivel inventivo
D2	Art 2	1, 2 y 9 a 14	Novedad y nivel inventivo

3 Uptake of mercury by exhausted coffee grounds; Environmental Technology Letters; Vol. 7; 431-444; 1986, online: <http://www.tandfonline.com/doi/abs/10.1080/09593338609384430?journalCode=tent19>

4 Investigation of indium ions removal from aqueous solutions using spent coffee grounds; Chou, W; Journal of physical Sciences; Vol. 7; 2445-2454; 2012, online: <http://www.academicjournals.org/journal/IJPS/article-full-text-pdf/723DB3D17182>

En cumplimiento del artículo 45 de la Decisión 486 de la Comisión de la Comunidad Andina, se le indica que debe dar respuesta dentro del término de sesenta (60) días contados a partir del día siguiente de la fecha de notificación de la presente comunicación. En caso de no dar respuesta al presente requerimiento, o si a pesar de la respuesta subsistieran los impedimentos para la concesión, se denegará la patente.

Si como respuesta a este requerimiento el solicitante llegara a modificar: i) el capítulo reivindicatorio, ii) la descripción de la invención a proteger, iii) o presente un nuevo capítulo reivindicatorio, no deberá pagar la tasa de modificación voluntaria pero sí la correspondiente a la tasa de examen de patentabilidad para que se estudie la materia modificada. En todo caso, el número de requerimientos por no patentabilidad estará supeditado a que el término del estudio de patentabilidad no sea superior a 18 meses, contados desde la publicación de la solicitud de patente de invención. Adicionalmente, se le recuerda al solicitante que si como respuesta a este requerimiento llegara a modificar el capítulo reivindicatorio y éste contenga más de diez (10) reivindicaciones deberá pagar la tasa por reivindicación adicional.

Se invita al solicitante se sirva indicar, si así lo considera, su renuncia al término faltante de sesenta (60) días para dar respuesta a este requerimiento y presentarla por escrito.

Notifíquese el presente oficio conforme a lo dispuesto en el numeral 5.2, literal e), del capítulo quinto del título primero de la Circular Única No. 10 de 2001.



JOSÉ LUIS SALAZAR LÓPEZ
Director de Nuevas Creaciones (c)

El anterior requerimiento fue notificado por fijación en lista, de fecha 2016-03-15

Elaboró: Lady Paola Cortes

Revisó: Olga Ximena Benavides Salazar

INFORME DE BÚSQUEDA DE PATENTES PARA EL No de Radicación: 13-300363						
CRITERIOS PARA LA BÚSQUEDA (anexar pantallazo o reporte en PDF, junto con los boleanos utilizados)						
Palabras clave utilizadas		Adsorción, metales pesados, café, biorretención, remoción de cationes, residuos de café, borra de café, waste coffee, heavy metal, coffee, cations, coffee residues, coffee waste, adsorption, cofee grounds, particle size, 2mm.				
CLASIFICACIONES INTERNACIONALES UTILIZADAS PARA LA BÚSQUEDA		C08J 11/00				
BASES DE DATOS CONSULTADAS.						
ESPAENET		Patent scope		Patbase		USPTO
Espatentes		Science direct				
INFORMES DE EXÁMENES REALIZADOS EN OTRAS OFICINAS (documentos patentes, literatura no patente etc...)						
Oficina	Fecha del examen o de reporte de búsqueda de documentos	Anterioridades encontradas para el examen o reportados en el examen de búsqueda(relacionarlos todos)	Reiv. afectadas	RELEVANCIA (requisito que afecta)	FUERON TENIDOS EN CUENTA PARA EL EXAMEN EN LA OFICINA COLOMBIANA	
					SI	NO
DOCUMENTOS ADICIONALES ENCONTRADOS POR EL EXAMINADOR DE ACUERDO A LOS CRITERIOS DE BÚSQUEDA.						
Investigation of indium ions removal from aqueous solutions using spent coffee grounds; Chou, W; Journal of physical Sciences; Vol. 7; 2445-2454; 2012.						
Evaluation of untreated coffee husks as potential biosorbents for treatment of dye contaminated waters; Journal of Hazardous Materials; Vol. 155, 507-512; 2008.						
Removal of heavy metals from wastewater using agricultural and industrial wastes as adsorbents; HBRC Journal; Vol. 9; 276-282; 2013						
Uptake of mercury by exhausted coffee grounds; Environmental Technology Letters; Vol. 7; 431-444; 1986.						
Adsorption of methylene blue on low-cost adsorbents: A review; Journal of Hazardous Materials; Vol. 177; 70–80: 2010.						
Novel biofiltration methods for the treatment of heavy metals from industrial wastewater; Journal of Hazardous Materials; Vol. 151; 1–8; 2008.						
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Biosorption of Toxic Heavy Metals by Unmodified Marine Red Alga (Kappaphycus alvarezii): Kinetics and Isotherm Studies; Sohail, R; International Journal of environment and bioenergy; 2013; Pags. 91 a 107.						

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Fecha del reporte de búsqueda:	10/02/2016

Google Translator Update of mercury by exhausted coffee grounds

www.tandfonline.com/doi/abs/10.1080/09593338609384430?journalCode=tent19#vuijvnhCM8

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Environmental Technology Letters
Volume 7, Issue 1-12, 1986

Original Articles
Uptake of mercury by exhausted coffee grounds

DOI: 10.1080/09593338609384430
G. Naeuf, D. Haeuf, & G. Travaud
pages 432-444

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Abstract

In view of using low cost material for the removal of mercury from wastewaters. Exhausted Coffee Grounds (ECG), appropriately pretreated with NaOH 0.5 M, have been tested as a possible scavenger from 10 mg l⁻¹ Hg solutions characterized by ionic strength 0.1 M NaCl and 0.1 M NaCl in the presence of 0.1 M NaCl. The low uptake can be explained in

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HBRC Journal
Volume 9, Issue 3, December 2013, Pages 276-282

Open Access

Removal of heavy metals from wastewater using agricultural and industrial wastes as adsorbents

Hala Ahmed Hegazi
doi:10.1016/j.hbrcj.2013.08.004
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Abstract

Adsorption processes are being widely used by various researchers for the removal of heavy metals from waste streams and activated carbon has been frequently used as an adsorbent. Despite its extensive use in water and wastewater treatment industries, activated carbon remains an expensive material. In recent years, the need for safe and economical methods for the elimination of heavy metals from contaminated waters has necessitated research interest toward the production of low cost alternatives to commercially available activated carbon. Therefore, there is an urgent need that all possible sources of agro-based inexpensive adsorbents should be explored and their feasibility for the removal of heavy metals should be studied in detail. The objective of this research is to study the utilization possibilities of less expensive adsorbents for the

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2011, Journal of Advanced Research
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2013, Bioresource Technology

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Journal of Hazardous Materials
Volume 177, Issues 1-3, 15 May 2010, Pages 70-80

Review
Adsorption of methylene blue on low-cost adsorbents: A review

Mohd. Rafatullah, A. Othman Sulaiman, Rokiah Hashim, Anees Ahmad
doi:10.1016/j.jhazmat.2009.12.047
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Abstract

In this article, the use of low-cost adsorbents for the removal of methylene blue (MB) from solution has been reviewed. Adsorption techniques are widely used to remove certain classes of pollutants from waters, especially those which are not easily biodegradable. The removal of MB, as a pollutant, from waste waters of textile, paper, printing and other industries has been addressed by the researchers. Currently, a combination of biological treatment and adsorption on activated carbon is becoming more common for removal of dyes from wastewater. Although commercial activated carbon is a preferred adsorbent

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Journal of Hazardous Materials
Volume 151, Issue 1, 28 February 2008, Pages 1–8

Review
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N.K. Sivastava, C.B. Majumder

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doi:10.1016/j.jhazmat.2007.09.101

Abstract
Most heavy metals are well-known toxic and carcinogenic agents and when discharged into the wastewater represent a serious threat to the human population and the fauna and flora of the receiving water bodies. In the present review paper, the sources have discussed the industrial source of heavy metals contamination in water, their toxic effects on the fauna and flora and the regulatory threshold limits of these heavy metals. The various parameters of the biofiltration processes, their mechanism for heavy metals

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Chapter
Environmental Chemistry
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Removal of Copper(II) and Cadmium(II) from Water Using Roasted Coffee Beans
M. Minamisawa, S. Nakajima, H. Minamisawa, S. Yoshida, N. Takai

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Abstract
The adsorption behavior of heavy metals on arabica and robusta roasted coffee beans was investigated. To adsorb heavy metals, the coffee beans residues were suspended in aqueous solutions containing Cu(II) or Cd(II). Then the amount of heavy metal remaining in the solution was measured by atomic absorption spectrometry. The results show that the adsorption percentage of the heavy metal ions were above 90% for all coffee beans examined. Further, the adsorption capacities of Cu(II) and Cd(II) ions onto blend coffee were about 2.0 mg g⁻¹. This adsorption

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Journal of Environmental Management
Volume 90, Issue 10, July 2009, Pages 3031–3039

Batch sorption dynamics and equilibrium for the removal of lead ions from aqueous phase using activated carbon developed from coffee residue activated with zinc chloride
F. Boudrahem, F. Aissani-Bensaddik, H. Ait-Amar

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doi:10.1016/j.jenvman.2009.04.005

Abstract
Lignocellulosic materials are good precursors for the production of activated carbon. In this work, coffee residue has been used as raw material in the preparation of powder activated carbon by the method of chemical activation with zinc chloride for the sorption of Pb(II) from dilute aqueous solutions.
The influence of impregnation ratio (ZnCl₂/coffee residue) on the physical and chemical

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Journal of Colloid and Interface Science
Volume 281, Issue 1, 1 January 2005, Pages 56–61

Removal of lead ions in drinking water by coffee grounds as vegetable biomass

Toshimitsu Tokimoto, Naohito Kawasaki, Takeo Nakamura, Junichi Akutagawa, Seki Tanada

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Abstract

In an attempt to reuse food waste for useful purposes, we investigated the possibility of using coffee grounds to remove lead ions from drinking water. We studied the lead ion adsorption characteristics of coffee beans and grounds by measuring their fat and protein content, adsorption isotherms for lead ions, and adsorption rates for lead ions. The number of lead ions adsorbed by coffee grounds did not depend on the kind of coffee beans or the temperature at which adsorption tests were performed. The rate of lead ion adsorption by coffee grounds was directly proportional to the amount of coffee grounds.

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Recommended articles
Waste recycling: Utilization of coffee grounds and k...
2009, Bioresource Technology
Particle concentration effect: Adsorption of divalent...
2010, Bioresource Technology
Adsorption of Dyes onto Carbonaceous Materials P...
2002, Journal of Colloid and Interface Science

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ESTUDIO DEL PROCESO DE BIOSORCIÓN DE COLORANTES SOBRE BORRA (CUNCCHO) DE CAFÉ

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Copper removal from aqueous systems with coffee wastes as low-cost materials 1 / 5

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Copper removal from aqueous systems with coffee wastes as low-cost materials

G. Z. Kyriak¹, D. N. Bikiaris², M. Kontopoulou² and N. K. Lianidis²

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² Department of Chemistry, Aristotle University of Thessaloniki, GR-541 24 Thessaloniki, Greece

Abstract. This work aims to study the removal of Cu(II) from aqueous solutions with coffee residues. Waste materials with no further treatment such as coffee residues from café may act as adsorbents for the removal of Cu(II). Equilibrium data were successfully fitted to the Langmuir, Freundlich and Langmuir-Freundlich model (L-F). The maximum adsorption capacity of the coffee residues can reach 70 mg/g for the removal of Cu(II). The kinetic data were fitted to pseudo-first, second and third order equations. The equilibrium was achieved in 120 min. Also, the effect of pH on adsorption and desorption was studied. Ten cycles of adsorption-desorption were carried out revealing the strong reuse potential of these low-cost adsorbents. The latter was confirmed from a brief economic approach.

Key words: Coffee residues, Heavy metals, Cu(II), Adsorption, Low-cost materials

Introduction

Heavy metals contamination of water is a serious threat to the globe ecosystem. Many industries such as metal plating, mining operation, and tanneries release wastewaters contaminated with heavy metals into the environment (Bakaly et al 1999). So, their removal from contaminated waters has become a major topic of research in recent years, due to the toxicological problems caused by the metal ions to the environment and to human health. Various processes of heavy metals

adsorption, chitosan (Kyriak et al 2009), zeolite, clay is still very popular due to the high adsorption capacity, but there are expensive, too. Thus, there is a growing demand to find relatively efficient, low-cost and easily available adsorbents for the adsorption of cadmium, particularly if the adsorbents are the wastes. The researchers were oriented towards no expensive adsorbents which are the vegetable wastes such as waste of tea, sawdust, the tree fern, the olive oil waste, the orange juice waste, the orange husks, the algae, plants dried and olive stone waste. However, there is a lack of literature dealing with

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International Journal of Environment and Bioenergy, 2013, 7(2): 91-107
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 Article

Biosorption of Toxic Heavy Metals by Unmodified Marine Red Alga (Kappaphycus alvarezii): Kinetics and Isotherm Studies

Sohail Rafiq ¹, Majid K.M. Ali ², Mahyar Sakari ³, Juman Sulaiman ³, Suhaimi M. Yasir ^{3,*}

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²Mathematics with Economics Programme, School of Science and Technology, Universiti Malaysia Sabah, 88400 Kota Kinabalu, Sabah
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* Author to whom correspondence should be addressed, E-Mail: ysuhaيمي@ums.edu.my; Tel.: +6088-320000 ext. 5778.

Article history: Received 5 July 2013, Received in revised form 13 August 2013, Accepted 30 August 2013, Published 15 October 2013.

Abstract: Present study has been undertaken to propose an alternative use of unmodified marine red alga (Kappaphycus alvarezii) (UMRA) as biosorbent for the removal of heavy metal ions from aqueous solutions. The biosorption studies were conducted in batch

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Search 2: TAC=(particle size) (Results 100000)
Search 3: TAC=(heavy metals) (Results 18290)
Search 4: TAC=(2mm) (Results 31701)
Search 5: TAC=(1 and 2 and 3 and 4) (Results 0)
Search 6: TAC=(1 and 2 and 3) (Results 4)
Search 7: TAC=(1 and 3) (Results 33)

Title: Improvements in processes for obtaining modified vegetable waxes

Abstract:

Source: GB576900A 10178. [Class 91] Modified vegetable waxes of increased initial softening or melting point and having rubber-like extensile properties are obtained by treating the natural wax, such as raw or refined sisal, flax, esparto, raffia, sugar cane, **coffee**, carnauba, and candelilla wax, either in a molten state or dissolved in an inert solvent of sufficiently high boiling point, with a reagent having an acid reaction (when said reagent is in aqueous solution) at temperatures between 85 -250 C. The reagents specified comprise acid gases, such as sulphur dioxide, sulphuric and phosphoric acids and chlorides of **heavy metals** such as aluminium, zinc and iron. Kerosene is exemplified as the inert solvent. When the metal chlorides are used, they may be removed from the resulting material by washing with water.

Classifications:

International (IPC 8-9): C11C3/00 (Advanced/Invention);

C11C3/00 (Core/Invention)

International (IPC 1-7): C11B11/00

CPC: C11C3/00

European: C11C3/00

Family:

Publication number	Publication date	Application number	Application date
GB576900 A	19460425	GB19440010178	19440525

Priority:

GB19440010178 19440525

Probable Assignee: ROBERT CHARLES BARKER

Assignee(s): (std): AFRICAN SISAL AND PRODUCE COMPAN ; CONRAD LAWRENCE WALSH ;
FREDERICK RUSSELL LANKSHEAR ; ROBERT CHARLES BARKER

Assignee(s): AFRICAN SISAL AND PRODUCE COMPANY LIMITED ; AFRICAN SISAL AND
PRODUCE CO LTD

2) Family number: 22688376 (FR1260598A)

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Title: Papier-filtre pour filtrer le cafe, le the ou les boissons analogues Filter paper to filter the **coffee**, tea or drinks like (Machine translation)

Abstract: Source: FR1260598A (Claim 1) 1. Le papier contient des vitamines, des oligoelements, des compositions de ceux-ci ou des matieres de complement analogues pour l'organisme, vivant, qui sont destinees a passer dans la boisson lors du filtrage;

Machine translation: (Claim 1) 1. The paper contains vitamins, trace elements, compositions of these or similar materials to supplement for the body, alive, which is intended only to pass into the drink when filtering;

Classifications:

International (IPC 8-9): A47J31/06 A47J31/08 (Advanced/Invention)

International (IPC 1-7): D21H5/00

CPC: A47J31/06 A47J31/08

European: A47J31/06 A47J31/08

Family:

Publication number	Publication date	Application number	Application date
FR1260598 A	19610512	FR19600817141	19600130

Priority:

FR19600817141 19600130

Inventor(s): (std):

TODEMANN HARRY

Title: Filter for filtering **coffee**, tea and like beverages**Abstract:**

Source: GB888351A 888,351. Paper. TODEMANN, H. Feb. 4, 1960 [Feb. 6, 1959; May 30, 1959], No. 4064/60. Class 96. A filter for tea, **coffee** or other beverages incorporates vitamins. The filter may be of paper or may incorporate or consist of a fleece or fabric of natural, mineral or synthetic fibres. It may be impregnated or coated with the vitamins which in the case of paper, may be added to the paper pulp or finished paper. In the latter case, the additives may be applied only to a selected part of the area where it will be most effective during filtration. The filter may be formed as a tea bag. Vitamins B1, B2, C may be added as thiamine hydrochloride. riboflavin-5¹ - phosphate-sodium and sodium ascorbate. Other substances such as oxalic acid and soluble starch may be included to prevent deterioration of the vitamins. The filters are stored in airtight plastic containers, preferably dark in colour.

Classifications:**International (IPC 8-9):** A47J31/08 (Advanced/Invention);

A47J31/06 (Core/Invention)

CPC: A47J31/08**European:** 30H17B 30H3 A47J31/08**Family:**

Publication number	Publication date	Application number	Application date
GB888351 A	19620131	GB19600004064	19600204

Priority:

19590206

Probable Assignee: HARRY TODEMANN**Assignee(s):** (std): HARRY TODEMANN

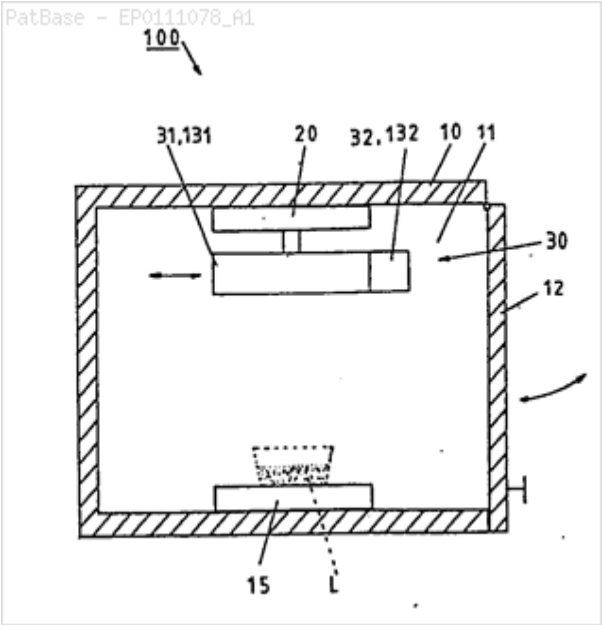
Title: Method and device for the treatment of allergy causing products and objects.

Abstract:

1. Procedure for the treatment of allergising products and objects intended for human contact, like food, coffee, tea, cigarettes etc., beverages, furniture, elements (all kinds of chip boards), linen, baby napkins, all kinds of floor covering, all kinds of dental materials, textiles and similar containing pesticides, heavy metals, solvents, softeners, acids, herbicides, artificial fertilizers, preservatives, growth inhibitors, formaldehydes, medicine residues and similar, characterized in that the products and objects to be treated are admitted by a magnetic field with simultaneous oscillating relative movement between the device producing the magnetic field and the products and objects.

Classifications:

International (IPC 8-9): A23L1/00
A23L1/015 A23L1/025 A23L3/26 A23L3/32
A61L2/02 A62D3/00 A62D3/10 A62D3/17
B01J19/00 (Advanced/Invention);
A62D101/04 A62D101/28
A62D101/43 (Advanced/Non-invention);
A23L1/00 A23L1/015 A23L1/025 A23L3/26
A61L2/02 A62D3/00
B01J19/00 (Core/Invention)
International (IPC 1-7): A23L1/00 A23L3/26 A61L2/02 A62D3/00 B01J19/00 H01F13/00
CPC: A23L1/015 A23L3/32 A61L2/02
European: A23L1/015 A23L3/32 A61L2/02 A62D3/00E2



Family:

Publication number	Publication date	Application number	Application date
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DE3308256 A1	19840510	DE19833308256	19830309
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DE8231066 U1	19830210	DE19820031066U	19821105
EP0111078 A1	19840620	EP19830109684	19830928
EP0111078 B1	19870812	EP19830109684	19830928
JP59111771 A2	19840628	JP19830191097	19831014

Priority:

DE19820031066U 19821105
DE19833372904 19830928

DE19823240967 19821105
DE19833308256 19830309

EP19830109684 19830928

Probable Assignee: POSE WOLFGANG

Assignee(s): (std): BORUFUGANGU POOZE ; POSE WOLFGANG ; POSE WOLFGANG DR

Assignee(s): POSE WOLFGANG DR 2000 HAMBURG DE

Inventor(s): (std): BUORUFUGANGU POOZE ; POSE WOLFGANG DR

Designated states: AT BE CH DE FR GB IT LI LU NL SE

Title: PROCESS FOR CONVERTING WASTE MATERIALS INTO USEFUL PRODUCTS

Abstract: Organic and/or inorganic substances which can be extensively used as raw materials and/or fuels are obtained by a thermochemical process which requires no reagents other than the mixtures of materials used, except for the reagents produced during the process itself, and which act both as heat transfer media and as separating agents. Water vapour is one such reagent. The process is carried out so that only the desired end products or products which can be recycled into one of the production circuits are produced. The process is particularly useful for processing organic materials, carbonaceous or petroliferous soils, sands or slates in suitable mixtures of high-energy and low-energy materials.

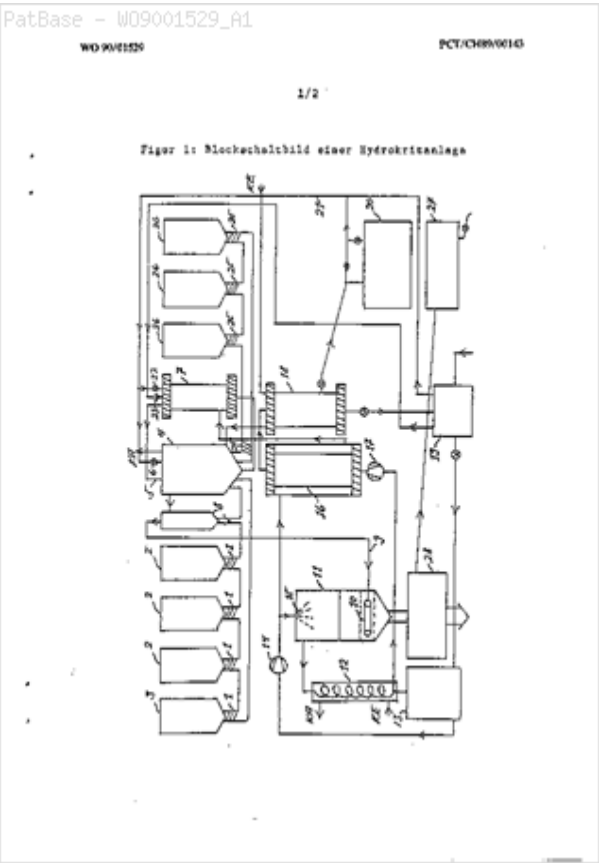
Classifications:

International (IPC 8-9): C02F1/00 C02F11/00 C08J11/00 C08J11/02 C08J11/10 C08J11/14 C10B53/00 C10J3/00 C10L5/40 C11B11/00 C11B13/00 (Advanced/Invention); C10B53/00 (Advanced/Non-invention); C02F1/00 C02F11/00 C08J11/00 C10B53/00 C10J3/00 C10L5/40 C11B11/00 C11B13/00 (Core/Invention); C10J (Subclass/Invention)

International (IPC 1-7): B07B4/00 B09B3/00 C01J3/00 C02F1/00 C02F11/00 C07C1/00 C07C27/10 C07C4/06 C08J11/00 C08J11/02 C08J11/10 C08J11/14 C10B53/00 C10J1/00 C10J3/00 C10J3/06 C10J3/16 C10L3/00 C10L5/40 C11B11/00 C11B13/00

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European: C10G2/32 C10J3/00 C10J3/82 F23G5/027 M10J300/09D14 M10J300/09D2B M10J300/09D2D M10J300/09F12 M10J300/09F2 M10J300/09F4 M10J300/16B14 M10J300/16F4B R23G201/301 R23G201/40 R23G206/10 Y02E20/18 Y02E50/30 Y02E50/32



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AR243784 A1	19930930	AR19890314585	19890804
AT92948 E	19930815	AT19890908376T	19890803
AU198939782 A1	19900305	AU19890039782	19890803
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BRPI8907046 A	19901002	BR1989PI07046	19890803
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RU2014346 C1	19940615	SU19904743527	19900404
TR24990 A	19920817	TR19890000593	19890801
WO9001529 A1	19900222	WO1989CH00143	19890803
YU151389 A	19910430	YU19890001513	19890728
YU46734 B	19940405	YU19890001513	19890728

Priority:

CH19880002984 19880805 IN1989CA00617 19890731 EP19890908376 19890803
WO1989CH00143 19890803

Probable Assignee: WIESENGRUND THOMAS

Assignee(s): (std): HANS WEBER AUNELER ; WEBER ANNELER HANS ; WIESENGRUND THOMAS ; WEBER ANNELER HANS DR ; THOMAS WIESENGRUND ; THOMAS KURT WIESENGRUND ; TOMAS VIZENGRUND ; ANNELER HANS WEBER ; W AND G HOLDING S A C O J P KERN ; HANS WEBER ANNELER

Assignee(s): HANS WEBER ANNELER CH ; HANS WEBER ANNELER DR ; WEBER ANNELER HANS CH ; WIESENGRUND THOMAS 90491 NUERNBERG DE ; W AND G HOLDING C O J P KERNEN SA ; DR HANS WEBER ANNELER ; DR HANS WEBER ANNELER CH ; DR WEBER ANNELER HANS ; DRHANS WEBER ANNELER ; W AND G HOLDING S A C O J P KERNEN

Inventor(s): (std): ANNELER HANS WEBER ; HANS DR WEBER ANNELER ; HANS WEBER ANNELER ; WEBER GUSTAV HANS ; WEBER ANNELER HANS DR ; DR HAUS WEBER ANNELER ; TOMAS VIZENGRUND ; WEBER ANNELER HANS ; HANS WEBER ANNELER DR

Inventor(s): WEBER ANNELER HANS CH ; WEBER ANNELER HANS CH 5200 BRUGG CH ; HANS WEBER ANNELER CH ; DR WEBER ANNELER HANS

Agent(s): DAVIES COLLISON CAVE

Designated states: AT AU BB BE BF BG BJ BR CF CG CH CM DE DK FI FR GA GB HU IT JP KP KR LI LK LU MC MG ML MR MW NL NO RO SD SE SN SU TD TG US

Title: NANOCRYSTAL-CONTAINING FILTRATION MEDIA

Abstract: Source: US2001042719A The invention relates to filtration media having nanocrystals of metal oxides, such as zinc oxide or titanium oxide or mixtures thereof, encapsulated in or impregnated into a binder matrix.

Classifications:

International (IPC 8-9): A23L2/72 A23L2/76 A61L2/238 B01D15/00 B01D39/00 B01D39/14 B01D39/20 B01J20/16 B01J20/28 B01J20/30 B01J39/16 B01J47/00 B22F3/12 C02F1/00 C02F1/28 C02F1/32 C02F1/42 C02F1/50 C02F1/58 C02F1/62 (Advanced/Invention); A23L2/70 A61L2/16 B01D15/00 B01D39/20 B01J20/10 B01J20/28 B01J20/30 B01J39/00 B01J47/00 C02F1/00 C02F1/28 C02F1/32 C02F1/42 (Core/Invention)

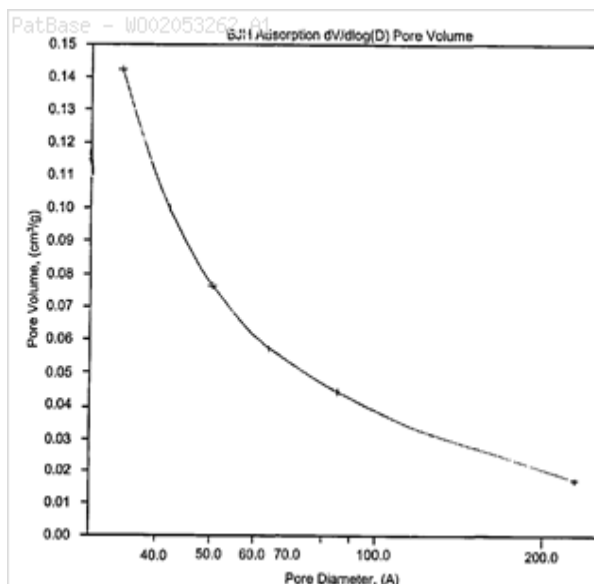
International (IPC 1-7): A23L2/78 A61L2/23 B01D15/00 B01D24/02 B01D37/00 B01D39/00 B01D39/02 C01B33/00 C02F1/00 C02F1/28 C02F1/42 C02F1/50 C02F1/58 C02F1/62

CPC: B01D2239/1208 B01D2239/1291

B01J20/0211 B01J20/06 B01J20/08 B01J20/103 B01J20/20 B01D39/2072 C02F1/003 Y10S210/903 Y10S210/911 Y10S210/912 Y10S264/48 Y10S210/908 A61L2/238 B01D2239/0407 B01D2239/08 B01D2239/10 C02F1/505 C02F1/58 C02F1/62 C02F2103/02 C02F2103/023 B01J20/16 B01J20/2803 B01J2220/42 B01D39/2068 B01D39/2055 B01D2239/0442 B01D2239/0485 B01D2239/1216 B01D2239/125 C02F1/288 C02F2101/103 C02F2101/14 C02F2101/20 C02F2101/36 C02F2303/16 Y02W10/37 C02F9/005 A23L2/72 A23L2/76 B01D39/2093 B01J39/16 B01J47/002 C02F1/281 C02F1/42 C02F2201/006 C02F1/283 B01D39/2062 B01D39/2079 B01D2239/0258 B01D2239/086 B01D2239/1241

European: A23L2/72 A23L2/76 A61L2/238 B01D39/20F2B B01D39/20H B01D39/20H2 B01D39/20H2D B01D39/20H6 B01J20/02B4 B01J20/06 B01J20/08 B01J20/10B B01J20/20 B01J39/16 B01J47/00D C02F1/00D4 C02F1/28B C02F1/28D C02F1/28L C02F1/50B C02F1/58 C02F1/62 C02F9/00B L01D239/02K L01D239/04B L01D239/04P4 L01D239/08 L01D239/10 L01D239/12M M02F1/28B M02F1/28D M02F1/42 M02F101/14 M02F101/36 M02F103/02 M02F103/02B M02F201/00D8 M02F303/16

US: 204/157.4 204/157.41 204/157.44 204/157.45 204/157.5 210/263 210/263S 210/282 210/283 210/291 210/472 210/473 210/474 210/477 210/500.25 210/501 210/502.1 210/502.100P 210/503 210/504 210/506 210/510.1 210/510.100S 210/660 210/660P 210/663 210/664 210/683 210/685 210/688 210/691 210/694 210/750 210/757 210/758 210/763 210/764 210/767 210/774 210/903 210/908 210/911 210/912 222/189.06 252/315.01 252/315.5 252/315.6 264/122 264/DIG.48 419/11 419/11S 422/21 422/28 423/112 423/118.1 423/181 423/203 423/328.1 423/330.1 423/700 423/713 423/716 424/489 424/635 426/477 426/590 502/402 502/407 502/414 502/417 502/5 516/110



Family:

Publication number	Publication date	Application number	Application date
AU2001255743 AA	20011112	AU20010255743	20010427
AU200155743 A5	20011112	AU20010055743	20010427
AU2002234193 AA	20020716	AU20020234193	20020102
US2001042719 AA	20011122	US20010854010	20010511
US2002195407 AA	20021226	US20010772542	20010130
US2003038089 AA	20030227	US20020256177	20020926
US2007241051 AA	20071018	US20070808695	20070612

US5538746 A	19960723	US19940261998	19940617
US5612522 A	19970318	US19950478863	19950607
US5616243 A	19970401	US19960599925	19960212
US6241893 BA	20010605	US19970819999	19970318
US6630106 BA	20031007	US20010805758	20010313
US6662956 BB	20031216	US20010854010	20010511
US6662956 C1	20100323	US20010854010	20010511
US7264726 BA	20070904	US20030445410	20030527
US7288498 BA	20071030	US20030681597	20031008
US7357868 BB	20080415	US20070808695	20070612
WO0183376 A2	20011108	WO2001US13619	20010427
WO0183376 A3	20020207	WO2001US13619	20010427
WO02053262 A1	20020711	WO2002US00025	20020102

Priority:

US19940261998 19940617	US19950478863 19950607	US19960599925 19960212
US19970819999 19970318	US20000560824 20000428	WO2001US13619 20010427
US20030681597 20031008	US20020304898 20021126	US20030445410 20030527
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Probable Assignee: SELECTO INC

Assignee(s): (std): SELECTO INC ; SELECTO SCIENT INC

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Inventor(s): EHUD LEVY

Agent(s): BUCHANAN INGERSOLL AND ROONEY PC; BUCHANN INGERSOLL AND ROONEY 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 UZ VN YU ZA ZM ZW

Title: COMPUESTOS DETERGENTES QUE CONTIENEN UNA ENZIMA Y UN SISTEMA DE BLANQUEO PEROXIACIDO ORGANICO COMPOUNDS detergents containing an enzyme and an organic peroxyacid BLEACHING SYSTEM (Machine translation)

Abstract: Source: CO4370063A UN COMPUESTO DETERGENTE QUE CONTIENE: (a) UNA ENZIMA; Y (b) UN SISTEMA DE BLANQUEO PEROXIACIDO ORGANICO DONDE SE SUPLE UN MEDIO PARA DEMORAR LA LIBERACION A UNA SOLUCION DE LAVADO DE DICHO PEROXIACIDO OR- GANICO RELACIONADO CON LA LIBERACION DE DICHA EN- ZIMA, TAL QUE CUANDO 10gr DE DICHO COMPUESTO ES AGITADO A 100rpm EN 100ml DE AGUA DESTILADA A 20 grados centigrados, EL TIEMPO PARA LOGRAR UNA CON- CENTRACION QUE SEA 50 percent DE UNA CONCENTRACION ULTIMA DEL PEROXIACIDO ORGANICO SEA MAS QUE 180 sgds, SIENDO DICHA CONCENTRACION ULTIMA LA CONCENTRACION MEDIDA DESPUES DE 10 MINUTOS DE AGITACION. 4. UN COMPUESTO DETERGENTE DE ACUERDO CON CUAL- QUIERA DE LAS REIVINDICACIONES 1 o 3 DONDE DICHO SISTEMA DE BLANQUEO PEROXIACIDO ORGANICO CONTIENE EN COMBINACION: (i) UNA FUENTE DE PEROXIDO DE HIDROGENO; Y (ii) UN COMPUESTO PRECURSOR DE BLANQUEADOR PEROXI- ACIDO ORGANICO. 5. UN COMPUESTO DETERGENTE DE ACUERDO CON LA REI- VINDICACION 4 DONDE DICHO COMPUESTO PRECURSOR DE BLANQUEADOR PEROXIACIDO ORGANICO ES SELECCIONADO DE UN COMPUESTO PRECURSOR DE BLANQUEADOR PEROXIA- CIDO ORGANICO EL CUAL BAJO PERHIDROLISIS GENERA UN PEROXIACIDO EL CUAL ES: (i) UN ACIDO PERBENZOICO O DERIVADO NO CATIONICO SUSTITUIDO DE EL; O (ii) UN PEROXIACIDO CATIONICO 11. UN COMPUESTO DETERGENTE DE ACUERDO CON CUAL- QUIERA DE LAS REIVINDICACIONES 1 o 3 QUE CONTIENE ADICIONALMENTE UN CATALIZADOR DE BLANQUEO. A detergent composition comprising: (a) an enzyme; And (b) a bleach system is supplied organic peroxyacid WHERE A MEANS to delay the release to a solution of washing said OR- ganic peroxyacid RELATED RELEASE OF SUCH EN- ZIMA, such that when 10g of said compound is shaken A 100rpm in 100ml distilled water at 20 degrees Celsius, the time to achieve a concentration that is 50 percent of a last CONCENTRATION organic peroxyacid is more than 180 sgds, it said concentration being the measured concentration LAST After 10 minutes of stirring. 4. A detergent composition according to any one of claims 1 or 3 wherein said organic peroxyacid bleaching system contains in combination: (i) a source of hydrogen peroxide; And (ii) a peroxide bleach precursor compound organic acid. 5. COMPOUND detergent according to claim 4 wherein said compound organic peroxyacid bleach precursor is selected from the bleach precursor compound PEROXIA- ORGANIC ACID UNDER WHICH CREATES perhydrolysis peroxyacid which is: (i) a perbenzoic acid REPLACED OR RESULT OF THE noncationic; Or (ii) a peroxy CATIONIC 11. A detergent composition according to any one of claims 1 or 3 additionally containing a bleach catalyst.

Classifications:

International (IPC 8-9): C11D3/386 C11D3/395 (Advanced/Invention); C11D3/38 C11D3/395 (Core/Invention)

International (IPC 1-7): C11D3/386 C11D3/395

Family:

Publication number	Publication date	Application number	Application date
CO4370063 A1	19961007	CO19950015479	19950417

Priority:

CO19950015479 19950417

Probable Assignee: PROCTER AND GAMBLE

Assignee(s): (std): PROCTER AND GAMBLE

Assignee(s): PROCTER AND GAMBLE CO ; THE PROCTER AND GAMBLE COMPANY

Inventor(s): (std): BAILLELY GERARD MARCEL ; BASTON GAIL MARGARET ; JANICE JEFFREY ; PARK JOHN SCOTT

Inventor(s): JEFFREY JANICE ; JOHN SCOTT PARK ; MARCEL BAILLELY GERARD ; MARGARET BASTON GAIL

Agent(s): JIMENA ESCOBAR URIBE

Title: FIBROUS FORMATION CONTAINING ACTIVE SUBSTANCES, A METHOD FOR THE PRODUCTION THEREOF, AND USE OF THE SAME

Abstract: The invention relates to fibrous materials containing a fibrous proportion and, optionally, a particle proportion. The fibrous materials also contain a proportion of one or several active substances for liquid treatment. At least one active substance is provided in the form of a coating and/or impregnates at least one portion of the fibers and/or particles which form the fibrous material, and is distributed in the fibrous material in a defined inhomogeneous manner such that the active substance is provided in a predetermined quantity in a predetermined proportion of the fibers and/or particles which form the fibrous material. In addition, the active substance is not provided in another predetermined proportion of the fibers and/or particles which form the fibrous material or is provided in a quantity which differs from the first predetermined proportion of the fibers and/or particles which form the fibrous material. The invention also relates to fibrous materials which are at least bound to a depot for the active substance so that the active substance is first released when using the fibrous material according to determination, is attained on the fibrous material, and is thus available for the liquid treatment.

Classifications:

International (IPC 8-9): A01K63/04 A23L2/52

A23L2/70 A47J31/08 B01D15/00 B01D39/00
B01D39/18 B01J20/06 B01J20/08 B01J20/22
B01J20/24 B01J20/28 B01J20/32 B01J47/00

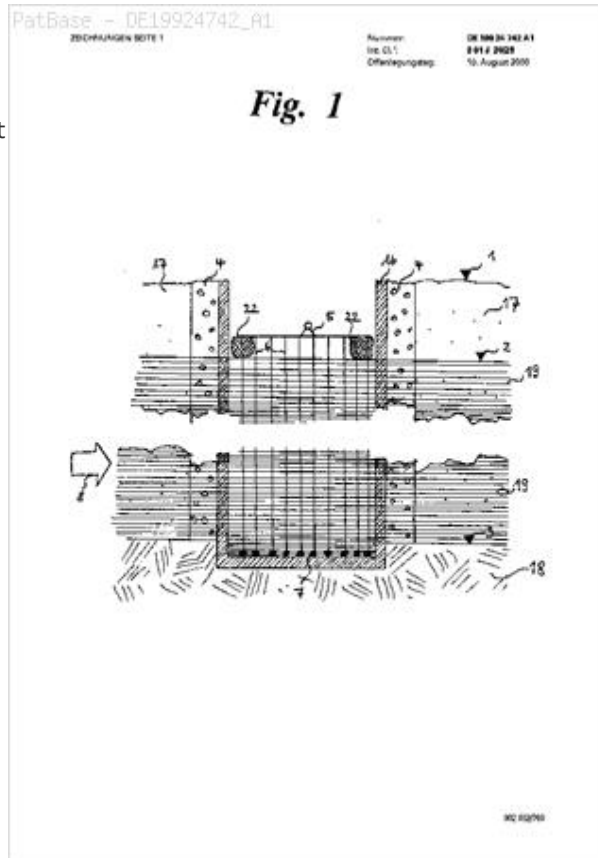
C02F1/00 C02F1/28 C02F1/42 C02F1/52 C02F1/70 C02F9/00 D21H21/14 D21H23/04 D21H27/08
G01N33/18 G01P13/00 G01P5/00 (Advanced/Invention);
C02F1/00 C02F1/28 C02F1/32 C02F1/42 C02F1/50 C02F1/58 C02F1/62 C02F1/64 C02F1/70
C02F1/72 C02F3/00 (Advanced/Non-invention);

A01K63/04 A23L2/52 A23L2/70 A47J31/06 B01D15/00 B01D39/00 B01D39/18 B01J20/06
B01J20/22 B01J20/28 B01J20/30 B01J47/00 C02F1/00 C02F1/28 C02F1/52 C02F1/70 D21H21/14
D21H23/00 G01N33/18 G01P13/00 G01P5/00 (Core/Invention);
C02F1/00 C02F1/28 C02F1/32 C02F1/42 C02F1/62 C02F3/00 (Core/Non-invention)

International (IPC 1-7): A23L1/015 A23L2/52 A23L2/70 A23L2/80 A47J31/08 B01D29/07
B01D29/11 B01D29/96 B01D39/00 B01D39/08 B01J20/28 B01J20/32 C02F1/00 C02F1/28 C02F3/32
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CPC: B01J20/28014 B01J20/28045 C02F1/50 C02F1/58 C02F1/62 C02F1/70 C02F1/725 C02F1/32
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B01J20/32

European: A01K63/04A A47J31/08 B01D15/00 B01D39/18 B01J20/06 B01J20/08 B01J20/22
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M02F101/16 M02F101/20 M02F101/30 M02F101/36 M02F3/00 M02F307/04

Family:

Publication number	Publication date	Application number	Application date
AT251936 E	20031115	AT19990947327T	19990913
AT445157 E	20091015	AT20000943855T	20000621
AU199960819 A1	20000110	AU19990060819	19990913
AU199960819 A5	20000410	AU19990060819	19990913
AU200058177 A5	20010131	AU20000058177	20000621
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DE10003841 A1	20010705	DE20001003841	20000129
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DE10024500 A1	20011129	DE20001024500	20000521
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DE19842528 A1	20000323	DE19981042528	19980918
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DE29824168 U1	20001221	DE19982024168U	19980803
DE29824242 U1	20001005	DE19982024242U	19980803
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DE29923868 U1	20010809	DE19992023868U	19990822
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EP1115469 B1	20031015	EP19990947327	19990913
EP1127274 A2	20010829	EP20000943855	20000621
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WO0101126 A2	20010104	WO2000EP05745	20000621
WO0101126 A3	20010705	WO2000EP05745	20000621

Priority:

DE19972016118U	19970909	DE19971050124	19971113	DE19982024500U	19980803
DE19982024242U	19980803	DE19981005992	19980215	DE19981017395	19980420
DE19991000443	19990108	DE19981042528	19980918	DE19991004670	19990204
DE19991015177	19990403	DE19982024168U	19980803	DE19981034916	19980803
DE19981055646	19981202	DE19981053158	19981118	WO1999EP06755	19990913
DE19992023893U	19991002	DE19995007392	19990913	DE19992022420U	19991221
DE19992023868U	19990822	DE19991017399	19990416	DE19991024742	19990531
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DE19992023739U	19991002	DE19991028460	19990624	DE19991030764	19990705
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DE20001017304 20000409 DE20001022549 20000510

Probable Assignee: OESTE FRANZ DIETRICH

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Assignee(s): RAINER HAAS ; OESTE FRANZ DIETRICH 35274 KIRCHHAIN DE ; HAAS RAINER DR 35037 MARBURG DE ; FRANZ D OESTE

Inventor(s): (std): FRANZ D OESTE ; HAAS DR ; HAAS RAINER ; HAAS RAINER DR ; M BAYER ; MICHAEL BAYER ; OESTE FRANZ D ; OESTE FRANZ DIETRICH ; RAINER HAAS

Designated states: AE AL AM AT AU AZ BA BB BE BF BG BJ BR BY CA CF CG CH CI CM CN CR CU CY CZ DE DK DM EE ES FI FR GA GB GD GE GH GM GN 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 NE NL NO NZ PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

Title: Filter bag for water purification

Abstract: Source: DE29922419U1 (Claim 1) 1. Filterbeutel zur Wasserreinigung, dadurch gekennzeichnet, dass Wirkstoffe zur Wasserreinigung, welche in partikulaerer Form und/oder als wirkstoffimlpraegnierte Fasermaterialien und/oder als wirkstoffbeschichtete Fasermaterialien vorliegen, von einem starren oder flexiblen Filterbeutel derart umschlossen sind, dass Wasser den Filterbeutel durchstroemen kann und Wirkstoffe den Filterbeutel nicht verlassen koennen.

Machine translation: (Claim 1) 1. Filter bag for water purification, by the fact characterized that active substances for water purification, which in individual form and/or as if wirkstoffimlpraegnierte synthetic materials and/or as if active substance-coated synthetic materials are present, from a rigid or flexible filter bag is in such a manner enclosed that water can flow through the filter bag and active substances the filter bag not to leave to be able.

Classifications:

International (IPC 8-9): B01D39/08 C02F1/00 (Advanced/Invention)

International (IPC 1-7): B01D39/08 C02F1/00

CPC: B01D39/083 B01D39/086 B01D2239/0407 B01D2239/0464 B01D2239/0471 C02F1/002

European: B01D39/08B B01D39/08D C02F1/00D2 L01D239/04B L01D239/04N L01D239/04P

Family:

Publication number	Publication date	Application number	Application date
DE29922419 U1	20000330	DE19992022419U	19991221

Priority:

DE19992022419U 19991221

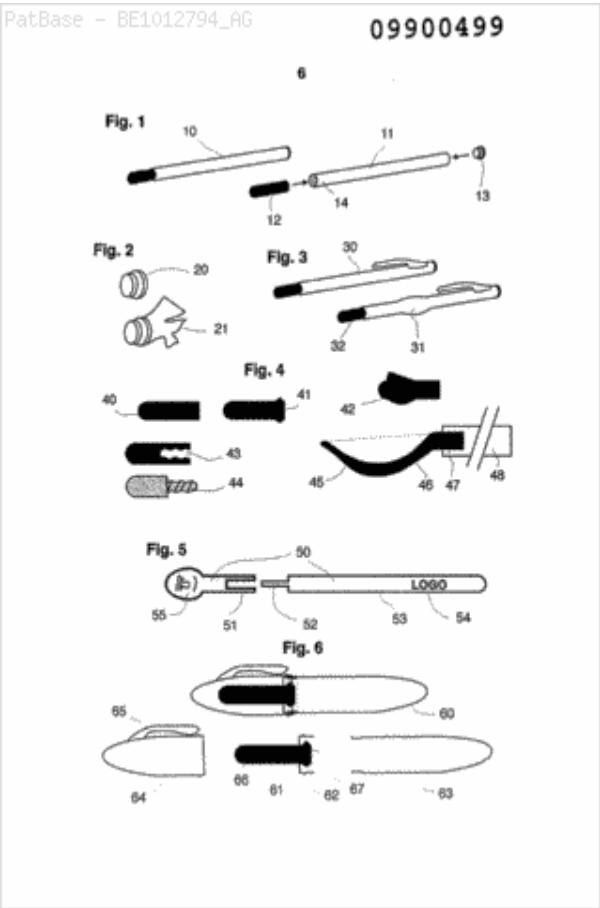
Probable Assignee: OESTE FRANZ DIETRICH

Assignee(s): (std): HAAS RAINER ; OESTE FRANZ DIETRICH

Title: Stirrer

Abstract: The invention concerns a stirrer, consisting of a handle that has at least one mineral stone or a natural or artificial crystal fixed on the end. It is to be used for improving the flavour of certain foodstuffs and drinks, both alcoholic and non-alcoholic, which improve in flavour when they come into contact with the mineral stone, by stirring the liquid concerned or by rubbing over a product. The handle can come in various shapes such as e.g. a protective sheath and can also be removed, to make it possible to boil the stone or replace it.

Classifications:
International (IPC 8-9): A23L1/22
A47G21/04 (Advanced/Invention)
International (IPC 1-7): A23L1/22 A45D11/00
A47G21/04 A47J43/27
CPC: A23L1/22041 A47G21/004
European: A23L1/22B8 A47G21/00D



Family:

Publication number	Publication date	Application number	Application date
BE1012794 AG	20010306	BE19990000499	19990721

Priority:

BE19990000499 19990721

Probable Assignee: LAUREYSSENS DIRK

Assignee(s): (std): LAUREYSSENS DIRK

Title: HETEROSIDE POLYMER MICROGRANULES OF MARINE ORIGIN CONTAINING VARIOUS HYDROPHILIC OR HYDROPHOBIC SUBSTANCES, METHODS FOR USING SAME IN FOOD, DIETETIC OR PHARMACEUTICAL PRODUCTS

Abstract: The invention concerns the use of marine heteroside polymer granules or microgranules containing various hydrophilic or hydrophobic substances in food, dietetic and pharmaceutical products.

Classifications:

International (IPC 8-9): B01J13/04 (Advanced/Invention);

B01J13/04 (Core/Invention)

International (IPC 1-7): A23P1/02 A61K9/16 B01J13/02 B01J13/04

CPC: B01J13/046

European: B01J13/04D

Family:

Publication number	Publication date	Application number	Application date
AT247519 E	20030915	AT20000964343T	20000922
AU200075299 A5	20010606	AU20000075299D	20000922
AU768958 B2	20040108	AU20000075299	20000922
BRPI0015375 A	20020716	BR2000PI15375	20000922
CA2390021 AA	20020503	CA20002390021	20000922
DE60004699 D1	20030925	DE20006004699	20000922
DE60004699 T2	20040708	DE20006004699T	20000922
EP1230010 A1	20020814	EP20000964343	20000922
EP1230010 B1	20030820	EP20000964343	20000922
ES2204689 T3	20040501	ES20000964343T	20000922
FR2800634 A1	20010511	FR19990014256	19991108
FR2800634 B1	20011214	FR19990014256	19991108
MXPA02004566 A1	20040910	MX2002PA04566	20020507
MXPA02004566 A1	20040910	MX2002PA04566	20000922
PT1230010 T	20031231	PT20000964343T	20000922
WO0134289 A1	20010517	WO2000FR02622	20000922

Priority:

FR19990014256 19991108 WO2000FR02622 20000922

Probable Assignee: OLIGOCAPS LAB

Assignee(s): (std): GOURDEL YANN ; GRANDMONTAGNE BERNARD ; LABORATOIRE OLIGOCAPS S A ; LABORATOIRE OLIGOCAPS SA ; LABORATOIRES OLIGOCAPS ; OLIGOCAPS S A LAB ; OLIGOCAPS LAB ; TRONEL JACQUELINE

Assignee(s): LABORATOIRE OLIGOCAPS S A TREGUEUX ; LABORATOIRE OLIGOCAPS

Inventor(s): (std): BERNARD GRANDMONTAGNE ; GOURDEL YANN ; GRANDMONTAGNE BERNARD ; JACQUELINE TRONEL ; TRONEL JACQUELINE ; YANN GOURDEL

Agent(s): OYEN WIGGS GREEN AND MUTALA LLP; GOURNEL TRONEL MANAGEMENT

Designated states: AE AM AT AU AZ BE BF BJ BR BY CA CF CG CH CI CM CU CY DE DK ES FI FR GA GB GN GR GW IE IL IT JP KG KZ LI LU MC MD ML MR MX NE NL NZ PT RU SE SN TD TG TJ TM US ZA

Title: Filter bag for purifying water comprises the active ingredients in particulate form, as active ingredient-impregnated fibrous materials and/or as active ingredient-coated fibrous materials enclosed by a rigid or flexible filter bag

Abstract: Filter bag comprises active ingredients in particulate form, active ingredient-impregnated fibrous materials and/or active ingredient-coated fibrous materials enclosed by a rigid or flexible filter bag. Water is able to flow through the bag but the active ingredients are not able to leave the bag. Preferred Features: The flexible bag is made from cellulose fibers, natural fibers, artificial fibers, cotton or a textile material. Holes are provided in the bag for the purposes of water exchange within and outside of the bag. The material of the bag is coated and/or impregnated with the active ingredients. The bag is made from plastic, metal, paper or fleece.

Classifications:

International (IPC 8-9): A47J31/60 C02F1/00 (Advanced/Invention);

C02F1/28 C02F1/42 C02F1/50 (Advanced/Non-invention);

A47J31/44 C02F1/00 (Core/Invention);

C02F1/28 C02F1/42 C02F1/50 (Core/Non-invention)

International (IPC 1-7): A47J31/08 C02F1/00

CPC: A47J31/605 C02F1/002 C02F1/281 C02F1/283 C02F1/42 C02F1/505 C02F2101/20

European: A47J31/60B C02F1/00D2 M02F1/28B M02F1/28D M02F1/42 M02F1/50B M02F101/20

Family:

Publication number	Publication date	Application number	Application date
DE19962131 A1	20010906	DE19991062131	19991221

Priority:

DE19991062131 19991221

Probable Assignee: HAAS RAINER

Assignee(s): (std): HAAS RAINER ; OESTE FRANZ DIETRICH

Inventor(s): (std): HAAS RAINER ; OESTE FRANZ DIETRICH

Title: GENES FOR MODIFYING PLANT TRAITS IV

Abstract: The invention relates to plant transcription factor polypeptides, polynucleotides that encode them, homologs from a variety of plant species, and methods of using the polynucleotides and polypeptides to produce transgenic plants having advantageous properties compared to a reference plant. Sequence information related to these polynucleotides and polypeptides can also be used in bioinformatic search methods and is also disclosed.



Classifications:

International (IPC 8-9): A01H5/00 C07K14/415 C12N15/82 (Advanced/Invention)

International (IPC 1-7): A01H5/00 C07K14/415 C12N15/82 C12P21/00

CPC: C12N15/8271 C07K14/415 C12N15/8214 C12N15/8261 C12N15/8267 C12N15/8273

European: C07K14/415 C12N15/82A12 C12N15/82C8 C12N15/82C8A8 C12N15/82C8B C12N15/82C8B2

Family:

Publication number	Publication date	Application number	Application date
AU2001286617 AA	20020304	AU20010286617	20010822
EP1406483 A1	20040414	EP20010966075	20010822
EP1406483 A4	20050525	EP20010966075	20010822
EP2410060 A1	20120125	EP20110185683	20010822
WO0215675 A1	20020228	WO2001US26189	20010822
WO0215675 C1	20020926	WO2001US26189	20010822

Priority:

US20000227439P 20000822 EP20010966075 20010822 WO2001US26189 20010822
US20000713994 20001116 US20010837944 20010418

Probable Assignee: MENDEL BIOTECHNOLOGY INC

Assignee(s): (std): DUBELL ARNOLD J ; HEARD JACQUELINE ; HEARD JACQUELINE E ; CREELMAN ROBERT ; MENDEL BIOTECHNOLOGY INC ; RATCLIFF OLIVER ; PINEDA OMAIRA ; PILGRIM MARSHA ; JIANG CAI ZHONG ; KEDDIE JAMES ; ADAM LUC ; RIECHMANN JOSE LUIS ; REUBER LYNNE J ; REUBER LYNNE T ; YU GUO LIANG ; REUBER J LYNNE

Assignee(s): REUBER J ; J LYNNE REUBER ; GUO LIANG YU ; ARNOLD J DUBELL ; CAI ZHONG JIANG ; ROBERT CREELMAN ; LUC ADAM ; OLIVER RATCLIFF ; JOSE LUIS RIECHMANN ; OMAIRA PINEDA ; MARSHA PILGRIM ; JACQUELINE HEARD ; JAMES KEDDIE

Inventor(s): (std): ADAM LUC ; ADAM LUC J ; CREELMAN ROBERT ; CREELMAN ROBERT A ; DUBELL ARNOLD J ; DUBELL ARNOLD N ; HEARD JACQUELINE ; HEARD JACQUELINE E ; KEDDIE JAMES ; KEDDIE JAMES S ; PILGRIM MARSHA ; PILGRIM MARSHA L ; PINEDA OMAIRA ; RATCLIFF OLIVER ; RATCLIFFE OLIVER ; REUBER J LYNNE ; REUBER LYNNE T ; REUBER T LYNNE ; RIECHMANN JOSE LUIS ; JIANG CAI ZHONG ; YU GUO LIANG

Inventor(s): JOSE LUIS RIECHMANN ; ROBERT CREELMAN ; REUBER J ; LUC ADAM ; MARSHA PILGRIM ; OLIVER RATCLIFF ; OMAIRA PINEDA ; J LYNNE REUBER ; JACQUELINE HEARD ; JAMES KEDDIE ; GUO LIANG YU ; ARNOLD J DUBELL ; CAI ZHONG JIANG

Agent(s): BRASNETT ADRIAN HUGH

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 LI LK LR LS LT LU LV MA MC

MD MG MK ML MN MR MW MX MZ NE NL NO NZ PH PL PT RO RU SD SE SG SI
SK SL SN SZ TD TG TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

Title: DELIVERY SYSTEMS FOR MYCOTECHNOLOGIES, MYCOFILTRATION AND MYCOREMEDIATION

Abstract: Source: US2004211721A The present invention utilizes fungal spore mass or hyphal fragments in landscaping cloths, fiber substrates, paper products, hydroseeders and agricultural equipment. The fungi may include saprophytic fungi, including gourmet and medicinal mushrooms, mycorrhizal fungi, entomopathogenic fungi, parasitic fungi and fungi imperfecti. The fungi function as keystone species, delivering benefits to both the microsphere and biosphere. Such fungal delivery systems are useful for purposes including ecological rehabilitation and restoration, preservation and improvement of habitats, filtration of silts and sediments and restoration of abandoned logging roads.

Classifications:

International (IPC 8-9): A01C1/08 A01G9/08 A01N63/04 C02F103/06 C02F3/34 C12N1/00 C12N1/15 G06Q30/00 G06Q99/00 (Advanced/Invention);

C02F103/06 G06Q90/00 (Advanced/Non-invention);

A01C1/00 A01G9/08 A01N63/04 C02F3/34 C12N1/00 C12N1/15 G06Q30/00

G06Q99/00 (Core/Invention);

G06Q90/00 (Core/Non-invention)

International (IPC 1-7): A01N63/04 A01N65/00 C12N1/14 C12N1/15 C12N11/02

CPC: G06Q99/00 Y02W10/37 Y02W90/20 A01N63/04 B65D81/36 G06Q10/30 G06Q90/00

European: A01N63/04 B65D81/36 G06Q10/30 G06Q90/00 G06Q99/00

US: 210/601 210/610 210/611 435/254.1 435/254.100S 435/262 47/1.01R 47/1.01RS 47/11R 47/57.6 504/100 705/1 705/308 705/308P 705/500 705/500P

Family:

Publication number	Publication date	Application number	Application date
AU2002244133 AA	20020904	AU20020244133	20020219
CA2438232 AA	20030813	CA20022438232	20020219
US2004211721 AA	20041028	US20040852948	20040524
US2005176583 AA	20050811	US20030614906	20030707
US2008005046 AA	20080103	US20070899526	20070906
US2008046277 AA	20080221	US20070899562	20070906
US2008264858 AA	20081030	US20080214934	20080624
WO02065836 A2	20020829	WO2002US05495	20020219
WO02065836 A3	20031113	WO2002US05495	20020219

Priority:

US20010790033 20010220	US20020081562 20020219	WO2002US05495 20020219
US20040852948 20040524	US20030614906 20030707	US20070899526 20070906
US20070899562 20070906	US20080214934 20080624	

Probable Assignee: CISCO TECHNOLOGY INC

Assignee(s): (std): STAMETS PAUL ; STAMETS PAUL E ; STAMETS PAUL EDWARD

Assignee(s): CISCO TECHNOLOGY INC

Inventor(s): (std): PAUL STAMETS ; STAMETS PAUL ; STAMETS PAUL E ; STAMETS PAUL EDWARD

Agent(s): SMART AND BIGGAR; WILLIAM R HYDE

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 PH PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TR TT TZ UA UG US UZ VN YU ZA ZM ZW

Title: TEA BAG PRODUCT CONTAINING MINERAL SALT

Abstract:
Source: KR20020070222A PURPOSE: A tea bag product containing mineral salts is provided, thereby increasing extraction of raw materials and permeability into a body or skin and improving taste and flavor. CONSTITUTION: The tea bag product containing mineral salts is produced by heating sun-dried sea salts at 2000 deg. C or more to remove dirt and heavy metals therefrom and to obtain refined salts; and adding the refined salts into a tea bag product, wherein a main component of the tea bag product is selected from seaweed containing brown seaweed and sea tangle weed, green tea, coffee, barley and various herbs.



Classifications:
International (IPC 8-9): A23F3/00 A23L1/237 (Advanced/Invention);
A23F3/00 A23L1/237 (Advanced/Non-invention);
A23F3/00 A23L1/237 (Core/Invention)
International (IPC 1-7): A23F3/00 A23L1/237

Family:

Publication number	Publication date	Application number	Application date
KR20020070222 A	20020905	KR20020045716	20020801

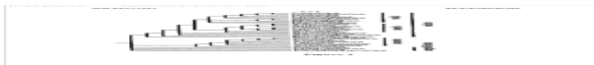
Priority:
KR20020045716 20020801

Probable Assignee: OH SUNG EUN
Assignee(s): (std): OH SUNG EUN
Inventor(s): (std): OH SUNG EUN

Title: STRESS-RELATED POLYNUCLEOTIDES AND POLYPEPTIDES IN PLANTS

Abstract: The invention relates to plant transcription factor polypeptides, polynucleotides that encode them, homologs from a variety of

plant species, and methods of using the polynucleotides and polypeptides to produce transgenic plants having advantageous properties compared to a reference plant. Sequence information related to these polynucleotides and polypeptides can also be used in bioinformatic search methods and is also disclosed.



Classifications:

International (IPC 8-9): A01H1/00 A01H5/00 A01H5/10 C07K14/415 C12N15/29 C12N15/82 C12N5/04 (Advanced/Invention);

A01H5/10 C07K14/415 C12N15/29 C12N15/82 (Core/Invention)

International (IPC 1-7): A01H1/00 A01H5/00 C07H21/04 C12N15/29 C12N15/82 C12N5/04

CPC: A01H5/10 C07K14/415 C12N15/8247 C12N15/8261 C12N15/8262 C12N15/827 C12N15/8271 C12N15/8273 C12N15/8275 C12N15/8282

European: A01H5/10 C07K14/415 C12N15/82C4B4 C12N15/82C8 C12N15/82C8A C12N15/82C8A12 C12N15/82C8B C12N15/82C8B2 C12N15/82C8B4A C12N15/82C8B6B

Family:

Publication number	Publication date	Application number	Application date
CA2456972 AA	20040209	CA20022456972	20020809
CA2456972 C	20130416	CA20022456972	20020809
EP1420630 A2	20040526	EP20020759448	20020809
EP1420630 A4	20050406	EP20020759448	20020809
WO03014327 A2	20030220	WO2002US26966	20020809
WO03014327 A3	20030530	WO2002US26966	20020809

Priority:

US20010310847P 20010809
US20020171468 20020614

US20010336049P 20011119
WO2002US26966 20020809

US20010338692P 20011211

Probable Assignee: MENDEL BIOTECHNOLOGY INC

Assignee(s): (std): ADAM LUC J ; BROUN PIERRE E ; DUBELL ARNOLD N ; HEARD JACQUELINE E ; MENDEL BIOTECHNOLOGY INC ; JIANG CAI ZHONG ; REUBER T LYNNE ; RATCLIFFE OLIVER ; RIECHMANN JOSE LUIS ; YU GUO LIANG ; PINEDA OMAIRA

Assignee(s): REUBER T

Inventor(s): (std): ADAM LUC J ; BROUN PIERRE E ; DUBELL ARNOLD N ; HEARD JACQUELINE E ; JIANG CAI ZHONG ; PINEDA OMAIRA ; RATCLIFFE OLIVER ; REUBER T LYNNE ; RIECHMANN JOSE LUIS ; YU GUO LIANG

Inventor(s): REUBER T

Agent(s): GOWLING LAFLEUR HENDERSON LLP

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 LI 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 VN YU ZA ZM ZW

Title: Genes for modifying plant traits IV

Abstract: Source: US2003121070A The invention relates to plant transcription factor polypeptides, polynucleotides that encode them, homologs from a variety of plant species, and methods of using the polynucleotides and polypeptides to produce transgenic plants having advantageous properties compared to a reference plant. Sequence information related to these polynucleotides and polypeptides can also be used in bioinformatic search methods and is also disclosed.

Classifications:

International (IPC 8-9): C07K14/415 C12N15/82 (Advanced/Invention)

International (IPC 1-7): A01H5/00 C07H21/04

CPC: C12N15/8214 C07K14/415 C12N15/8261 C12N15/8267 C12N15/8273

European: C07K14/415 C12N15/82A12 C12N15/82C8 C12N15/82C8A8 C12N15/82C8B2 M07K207/00

US: 536/23.6 536/23.600S 800/278 800/278P

Family:

Publication number	Publication date	Application number	Application date
US2003121070 AA	20030626	US20010934455	20010822

Priority:

US20000227439P 20000822 US20010934455 20010822

Probable Assignee: MENDEL BIOTECHNOLOGY INC

Assignee(s): (std): ADAM LUC ; CREELMAN ROBERT ; DUBELL ARNOLD ; HEARD JACQUELINE ; KEDDIE JAMES ; JIANG CAI ZHONG ; PILGRIM MARSHA L ; RATCLIFFE OLIVER ; REUBER T LYNNE ; PINEDA OMAIRA ; HEARD JACQUELINE E ; REUBER LYNNE T ; RIECHMANN JOSE LUIS ; YU GUO LIANG

Assignee(s): MENDEL BIOTECHNOLOGY INC

Inventor(s): (std): ADAM LUC ; CREELMAN ROBERT ; DUBELL ARNOLD ; HEARD JACQUELINE ; HEARD JACQUELINE E ; JIANG CAI ZHONG ; KEDDIE JAMES ; PILGRIM MARSHA L ; PINEDA OMAIRA ; RATCLIFFE OLIVER ; REUBER LYNNE T ; REUBER T LYNNE ; RIECHMANN JOSE LUIS ; YU GUO LIANG

Title: GENES FOR MODIFYING PLANT TRAITS XI

Abstract: Source: US2003188330A The invention relates to plant transcription factor polypeptides, polynucleotides that encode them, homologs and orthologs from a variety of plant species, and methods of using the polynucleotides and polypeptides to produce transgenic plants having advantageous properties compared to a reference plant. Sequence information related to these polynucleotides and polypeptides can also be used in bioinformatic search methods and is also disclosed.

Classifications:**International (IPC 8-9):** C07K14/415 C12N15/82 (Advanced/Invention)**International (IPC 1-7):** A01H1/00 C07H21/04 C07K14/415 C12N15/82**CPC:** C12N15/8214 C07K14/415 C12N15/8216 C12N15/8247 C12N15/8251 C12N15/8261 C12N15/8267 C12N15/8271 C12N15/8273 C12N15/8282**European:** C07K14/415 C12N15/82A12 C12N15/82B C12N15/82C4B10 C12N15/82C4B4 C12N15/82C8 C12N15/82C8A8 C12N15/82C8B C12N15/82C8B2 C12N15/82C8B6B M07K207/00**US:** 530/37 530/370 530/370S 536/23.6 536/23.600S 800/278 800/278P**Family:**

Publication number	Publication date	Application number	Application date
US2003188330 AA	20031002	US20020112887	20020318

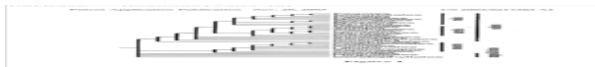
Priority:

US20020112887 20020318

Probable Assignee: MENDEL BIOTECHNOLOGY INC**Assignee(s):** (std): HEARD JACQUELINE**Assignee(s):** MENDEL BIOTECHNOLOGY INC**Inventor(s):** (std): HEARD JACQUELINE

Title: STRESS-RELATED POLYNUCLEOTIDES AND POLYPEPTIDES IN PLANTS

Abstract: Source: US2003217383A The invention relates to plant transcription factor polypeptides, polynucleotides that encode them, homologs from a variety of plant species, and methods of using the polynucleotides and polypeptides to produce transgenic plants having advantageous properties compared to a reference plant. Sequence information related to these polynucleotides and polypeptides can also be used in bioinformatic search methods and is also disclosed.



Classifications:

International (IPC 8-9): C07K14/415 C12N15/82 (Advanced/Invention)

International (IPC 1-7): A01H1/00 C07H21/04 C12N15/82

CPC: C07K14/415 C12N15/8241 C12N15/8261 C12N15/8271 C12N15/8273 C12N15/8275 C12N15/8282

European: C07K14/415 C12N15/82C C12N15/82C8 C12N15/82C8B C12N15/82C8B2 C12N15/82C8B4A C12N15/82C8B6B

US: 435/468 435/468S 536/23.6 536/23.600S 800/278 800/279 800/279P 800/287 800/290

Family:

Publication number	Publication date	Application number	Application date
US2003217383 AA	20031120	US20020225068	20020809
US2005120408 A9	20050602	US20020225068	20020809
US7193129 BB	20070320	US20020225068	20020809

Priority:

US20010837944	20010418	US20010310847P	20010809	US20010336049P	20011119
US20010338692P	20011211	US20020225068	20020809	US20020171468	20020614

Probable Assignee: MENDEL BIOTECHNOLOGY INC

Assignee(s): (std): MENDEL BIOTECHNOLOGY INC

Assignee(s): ADAM LUC J ; BROUN PIERRE E ; DUBELL ARNOLD N ; HEARD JACQUELINE E ; JIANG CAI ZHONG ; RIECHMANN JOSE LUIS ; REUBER T LYNNE ; PINEDA OMAIRA ; RATCLIFFE OLIVER ; YU GUO LIANG ; RIECHMANN JOSE L ; REUBER T L

Inventor(s): (std): ADAM LUC J ; BROUN PIERRE E ; HEARD JACQUELINE E ; JIANG CAI ZHONG ; PINEDA OMAIRA ; RATCLIFFE OLIVER ; DUBELL ARNOLD N ; REUBER T L ; REUBER T LYNNE ; RIECHMANN JOSE L ; RIECHMANN JOSE LUIS ; YU GUO LIANG

Inventor(s): ADAM LUC ; RIECHMANN JOSE ; HEARD JACQUELINE ; REUBER T ; DUBELL ARNOLD ; BROUN PIERRE

Agent(s): MENDEL BIOTECHNOLOGY INC; JEFFREY

Title: FEED FOR FISH**Abstract:**

Source: JP2005151956A PROBLEM TO BE SOLVED: To provide safe feed (animal and plant residue) for fishes, in view of the fact that residual agricultural chemicals and heavy metals flow from drainage channels through river mouths into the sea and fishes in the sea drink the polluted water, but there are many special products in the Sea of Japan, eatable together with guts such as sweet shrimp, Echizen crab and Wakasa flatfish, intended for protecting the special products through putting the safe feed into artificial fish reef and sinking it in the sea so as to bring the fish reef to a place where fishes eat the feed, lay eggs and take a rest and shellfishes adhere. SOLUTION: The feed for fishes is made from animal and plant residue, for instance, beer lees, soy sauce lees, food dirt, bean curd lees, coffee dregs, wheat lees and used tea leaves. The feed is given to fishes coming in and out a container sunk in the bottom of the sea.

Classifications:

International (IPC 8-9): A01K61/00 A23K1/00 A23K1/06 A23K1/10 A23K1/18 (Advanced/Invention); A01K61/00 A23K1/00 A23K1/06 A23K1/10 A23K1/18 (Core/Invention)

International (IPC 1-7): A01K61/00 A23K1/00 A23K1/06 A23K1/10 A23K1/18

CPC: Y02P60/873

Family:

Publication number	Publication date	Application number	Application date
JP2005151956 A2	20050616	JP20030431314	20031121

Priority:

JP20030431314 20031121

Probable Assignee: MAEKAWA EIICHI

Assignee(s): (std): MAEKAWA EIICHI

Inventor(s): (std): MAEKAWA EIICHI

Abstract: Source: US2007186308A The invention relates to plant transcription factor polypeptides, polynucleotides that encode them, homologs from a variety of plant species, and methods of using the polynucleotides and polypeptides to produce transgenic plants having advantageous properties compared to a reference plant. Sequence information related to these polynucleotides and polypeptides can also be used in bioinformatic search methods and is also disclosed.



International (IPC 8-9): A01H1/00 A01H5/00 A01H5/10 C07K14/415 C12N15/29 C12N15/82 C12N5/04 (Advanced/Invention)

European: C07K14/415 C12N15/82C C12N15/82C8 C12N15/82C8B C12N15/82C8B2 C12N15/82C8B4A C12N15/82C8B6B

Family:

Publication number	Publication date	Application number	Application date
US2007186308 AA	20070809	US20070725235	20070316
US7601893 BB	20091013	US20070725235	20070316

US20010837944	20010418	US20020171468	20020614	US20010310847P	20010809
US20010336049P	20011119	US20010338692P	20011211	US20070725235	20070316
US20020225068	20020809				

Assignee(s): (std): MENDEL BIOTECHNOLOGY ; MENDEL BIOTECHNOLOGY INC

Inventor(s): (std): ADAM LUC J ; BROUN PIERRE E ; DUBELL ARNOLD N ; HEARD JACQUELINE E ;
JIANG CAI ZHONG ; PINEDA OMAIRA ; RATCLIFFE OLIVER ; REUBER T L ;
RIECHMANN JOSE L ; YU GUO LIANG ; RIECHMANN JOSE LUIS ; REUBER T
LYNNE ; BROUN PIERRE ; ADAM LUC

Inventor(s): REUBER T ; HEARD JACQUELINE ; DUBELL ARNOLD ; RIECHMANN JOSE

Agent(s): MENDEL BIOTECHNOLOGY INC; YIFAN; JEFFREY M

Title: METHOD AND APPARATUS FOR MAKING NON-STAINING BEVERAGES

Abstract:
Source: US2007201303A A method and apparatus for making non-staining **coffee** or tea includes an ion exchanger for removing **heavy metals** from the brewed **coffee** or tea or from the water used to brew the **coffee** or tea.



Classifications:
International (IPC 8-9): B01F15/00 C12H1/14 (Advanced/Invention);
B01F15/00 C12H1/00 (Core/Invention)
CPC: A47J31/08
European: A47J31/08
US: 366/129

Family:

Publication number	Publication date	Application number	Application date
US2007201303 AA	20070830	US20070626313	20070123
WO07106610 A2	20070920	WO2007US60931	20070123
WO07106610 A3	20071206	WO2007US60931	20070123

Priority:

US20060761253P 20060123 US20070626313 20070123

Probable Assignee: PIPEX INC

Assignee(s): (std): ALTHAUS JOHN S ; KANZER STEVE H ; PIPEX INC

Inventor(s): (std): ALTHAUS JOHN S ; KANZER STEVE H

Inventor(s): ALTHAUS JOHN ; KANZER STEVE

Agent(s): HAYES SOLOWAY PC

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 GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK
LR LS LT LU LV LY MA MC MD MG MK ML MN MR 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 SV SY SZ TD
TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: Vending machines by the concept of a cleanroom paenpilteoyuniteue (Machine translation)

Abstract:

Source: KR20090045994A



Machine translation: **Coffee** and beverage supply, etc. The present invention relates to vending machines, vending machines are installed in indoor or outdoor, indoor and outdoor fly meonjisok contaminated dust and germs, which are exposed to outside air with the composition of air oxygen (21 percent) and nitrogen (78 percent) and gas (and other ahreugondeung 1 percent) and suspended particulate matter consists of the gas components with toxic gases, unhealthy pollutants are mixed components are also and suspended particulates include dust and germs are. Mostly dust in the air of bacteria are often attached to. In spring, dust cadmium, lead, silicon, copper, aluminum, etc. have been rising concentrations of **heavy metals**, and the dust comes experts than usual amount of dust in the air 3-4 times, 2-10 times as **heavy metals** has been pointed out that increased. Thus, flies, and indoor and outdoor dust contaminated with germs and meonjisok various outside air being introduced into the vending machine is the need to avoid. Food and clean areas such as semiconductor cleanrooms positive than the general area to form a general section of the contaminated air from being introduced into the clean area or ulpapilteoro HEPA filtered air positive pressure dust formation is continuously supplied to meet the design that by combining the concept of an industrial clean rooms and indoor and outdoor fly meonjisok contaminated dust and germs with a vending machine outside air from being introduced into the vending machine for forming positive pressure inside the clean air supply by paenpilteoyuniteue the concept of a cleanroom is to provide a sanitary vending machines. Vending machines. Clean. Hygiene

Classifications:

International (IPC 8-9): G07F13/00 (Advanced/Invention);

G07F13/00 (Advanced/Non-invention);

G07F13/00 (Core/Invention)

Family:

Publication number	Publication date	Application number	Application date
KR20090045994 A	20090511	KR20070111883	20071105

Priority:

KR20070111883 20071105

Probable Assignee:

SONG KYONG AE

Assignee(s): (std):

SONG KYONG AE ; YOU BYUNG YEOL

Inventor(s): (std):

SONG KYONG AE ; YOU BYUNG YEOL

Title: SYNTHETIC TRITERPENOIDS AND METHODS OF USE IN THE TREATMENT OF DISEASE

Abstract: Source: US2009326063A The present invention concerns methods for treating and preventing renal/kidney disease, insulin resistance/diabetes, fatty liver disease, and/or endothelial dysfunction/cardiovascular disease using synthetic triterpenoids, optionally in combination with a second treatment or prophylaxis.



Classifications:

International (IPC 8-9): A61K A61K31/21 A61K31/215 A61K31/275 A61K31/277 A61K31/4164 A61K31/4174 A61K31/56 A61K45/00 A61K47/32 A61K47/38 A61K9/107 A61K9/127 A61K9/48 A61P1/04 A61P1/16 A61P13/12 A61P17/00 A61P21/00 A61P25/00 A61P27/02 A61P3/00 A61P3/04 A61P3/06 A61P3/10 A61P37/02 A61P37/06 A61P5/50 A61P9/00 A61P9/08 A61P9/10 A61P9/12 A61P9/14 C07J63/00 (Advanced/Invention); A61K31/56 A61P3/00 A61P3/10 A61P9/00 C07J63/00 (Advanced/Non-invention); A61K31/21 A61K31/275 A61K31/4164 A61P13/00 A61P3/00 A61P9/00 (Core/Invention); A61K31/275 A61K31/4164 A61P3/00 (Core/Non-invention); A61K A61P (Subclass/Invention)

International (IPC 1-7): A61K31/275

CPC: A61K31/4174 A61K31/277 A61K31/275 A61K31/4164

European: A61K31/275 A61K31/4164

US: 514/399 514/506 514/510 514/511 514/512 514/519 514/529 558/429 558/430 558/440 558/443

Family:

Publication number	Publication date	Application number	Application date
AU2009203941 AA	20090716	AU20090203941	20090112
AU2009203941 BB	20150312	AU20090203941	20090112
CA2711834 AA	20090716	CA20092711834	20090112
CN101965184 A	20110202	CN200980107178	20090112
CN101965184 B	20150311	CN200980107178	20090112
CN104739841 A	20150701	CN201510082399	20090112
CO6351720 A2	20111220	CO20100098518	20100811
EA022166 B1	20151130	EA20100000984	20090112
EA201000984 A1	20110228	EA20100000984	20090112
EP2252283 A1	20101124	EP20090701279	20090112
HK1148196 A1	20151218	HK20110102277	20110307
HK1206593 A1	20160115	HK20150106994	20110307
IL206749 A0	20101230	IL20100206749	20100701
IN05158DN2010 A	20110304	IN2010DN05158	20100716
JP2011509941 T2	20110331	JP20100542411T	20090112
JP2012041353 A2	20120301	JP20110221593	20111006
JP2014218530 A2	20141120	JP20140174992	20140829
JP4923146 B2	20120425	JP20100542411T	20090112
JP5608143 B2	20141015	JP20110221593	20111006
KR20100117072 A	20101102	KR20107017787	20090112
MX2010007610 A1	20101214	MX20100007610	20100709
MX2010007610 A1	20101214	MX20100007610	20090112
NZ586751 A	20120831	NZ20090586751	20090112
SG187464 A1	20130228	SG20130002522	20090112
TW200942231 A	20091016	TW20090100956	20090112
TW201216958 A	20120501	TW20120101480	20090112
TW201322977 A	20130616	TW20130108736	20090112

TW201602129 A	20160116	TW20150117020	20090112
TWI492745 B	20150721	TW20130108736	20090112
US2009326063 AA	20091231	US20090352473	20090112
US2012220652 AA	20120830	US20120359381	20120126
US2013345276 AA	20131226	US20130886053	20130502
US8129429 BB	20120306	US20090352473	20090112
US8455544 BB	20130604	US20120359381	20120126
WO09089545 A1	20090716	WO2009US30771	20090112

Priority:

US20080020624P 20080111	US20080020624 20080111	US20080109114P 20081028
US20090352473 20090112	WO2009US30771 20090112	US20080109114 20081028
JP20100542411 20090112	US20120359381 20120126	US20130886053 20130502
JP20110221593 20090112	CN200980107178 20090112	

Probable Assignee: TRUSTEES OF DARTMOUTH COLLEGE

Assignee(s): (std): DARTMOUTH COLLEGE ; GRIBBLE GORDON W ; HONDA TADASHI ; KRAL ROBERT M ; LIBY KAREN ; SPORN MICHAEL ; REATA PHARMACEUTICALS INC ; MEYER COLIN J ; SPORN MICHAEL B ; LIBY KAREN T ; REATA PHARMAECUTICALS INC

Assignee(s): TRUSTEES OF DARTMOUTH COLLEGE

Inventor(s): (std): G GRIBBLE GORDON W W ; HONDA TADASHI ; KAREN LIBY ; KRAL ROBERT M ; KRAL ROBERT M M ; LIBY KAREN ; LIBY KAREN T ; MEYER COLIN J ; MEYER COLIN J J ; GRIBBLE GORDON W ; GRIBBLE GORDON W W ; MICHAEL SPORN ; SPORN MICHAEL ; SPORN MICHAEL B ; TADASHI HONDA ; MEYER COLIN ; KRAL ROBERT ; GRIBBLE GORDON

Inventor(s): HONDA, Tadashi ; LIBY, Karen ; SPORN, Michael ; ROBERT KRAL ; ROBERT M KRAL ; GORDON GRIBBLE ; GORDON W GRIBBLE ; COLIN J MEYER ; COLIN MEYER

Agent(s): PIZZEYS PATENT AND TRADE MARK ATTORNEYS; SILVANA MARIA LOPEZ DIAZ; DEHMEL ALBRECHT; KAWAMOTO KAZUYA; SHIMIZU HATSUSHI; OSAKABE SUGURU; SPRUSON AND FERGUSON ASIA PTE LTD; FULBRIGHT AND JAWORSKI LLP; PARKER HIGHLANDER PLLC; VOGES MARK H

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: RELATED/OVERLAPPING INNOVATIONS IN HEALTH/ENERGY/TRANSPORT/FARMING AND INFRASTRUCTURE

Abstract: Source: CA2629555A (Claim 1) 1.) tissue culture of the stem cells and then differentiating them into desired cells (fruits and/or vegetables, kernels),

Classifications:

International (IPC 8-9): A01N63/02 A01P1/00 A23L3/3562 A61K31/722 A61P31/04 A62D3/00 A99Z99/00 B09C1/00 C02F1/50 C12N1/00 C12N15/00 C12N5/00 C99Z99/00 (Advanced/Invention); A01N63/02 A01P1/00 A23L3/3463 A61K31/716 A61P31/00 A62D3/00 A99Z99/00 B09C1/00 C02F1/50 C12N1/00 C12N15/00 C12N5/00 C99Z99/00 (Core/Invention)

CPC: Y02W10/37 A23L1/3014 A23G3/36 A23G3/42 A23L1/30 A23L1/3081 A23L3/3463 A61K31/722 A61K36/00 B09B3/00 B09C1/00 C11D3/227

European: A23G3/36 A23G3/42 A23L1/30 A23L1/308A A23L1/30M A23L3/3463 A61K31/722 A61K36/00 B09B3/00 B09C1/00 C11D3/22E10

Family:

Publication number	Publication date	Application number	Application date
CA2629555 AA	20091114	CA20082629555	20080514

Priority:

CA20082629555 20080514

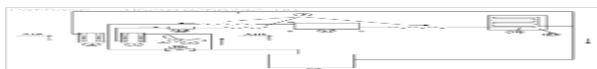
Probable Assignee: VOON GERARD

Assignee(s): (std): VOON GERARD

Inventor(s): (std): VOON GERARD

Title: APPARATUS AND METHODS FOR CREATING SPARKLING WATER FROM THE ATMOSPHERE

Abstract: Source: US2010266742A What is disclosed is a system designed to extract water moisture from the atmosphere, highly purify and



condition the extracted water, and provide optional carbonation of the extracted water for human consumption. In one embodiment, the device collects water-vapor condensation from filtered intake air, then subjects the condensate to a series of purification filters and to a sterilization process in order to produce drinking water, while also providing a means to combine the purified water with CO2 gas to facilitate dispensing carbonated water and/or carbonated drinks.

Classifications:

International (IPC 8-9): A23L2/00 A23L2/54 A47J31/00 A47J31/42 A47J31/44 B01D5/00 B01F3/04 B23P11/00 B23P19/04 C02F1/28 C02F1/32 C02F1/44 C02F9/08 C02F9/12 E03B3/28 F24C1/00 F25B1/00 F25B49/02 F25D21/00 F25D21/02 F25D21/14 F25D27/00 F25J1/00

F25J1/02 (Advanced/Invention);

C02F1/28 C02F1/32 C02F1/44 (Advanced/Non-invention);

A23L2/52 C02F9/08 F25J1/00 (Core/Invention);

C02F1/28 C02F1/32 C02F1/44 (Core/Non-invention);

A23L C02F (Subclass/Invention)

CP: C02F2303/24 C02F3/1221 C02F3/1263 Y10T29/49826 B01D5/009 B01D5/0051 B67D1/0004 B67D1/0057 B67D1/0063 B67D1/0859 B67D1/0888 B67D2210/0001 B67D2210/00013

B67D2210/00015 C02F1/283 C02F1/32 C02F1/441 C02F1/68 C02F9/00 Y02W10/37 B01D5/0015 Y02W10/15

European: B01D5/00B16 B01D5/00F20 B01D5/00K16 B67D1/00E2 B67D1/00H4 B67D1/00H4F2B B67D1/08D2B B67D1/08J L67D210/00B2D L67D210/00B4 L67D210/00B4B M02F1/28D M02F1/32 M02F1/44B M02F1/68 M02F9/00

US: 29/428 29/428S 426/477 426/477P 426/67 62/150 62/150P 62/228.5 62/228.500S 62/264 62/272 62/291 62/291S 62/389 99/323.2 99/323.200S

Family:

Publication number	Publication date	Application number	Application date
CN101731714 A	20100616	CN200910205962	20091117
CN101731714 B	20130123	CN200910205962	20091117
CN102334911 A	20120201	CN201110116658	20110506
CN201742903 U	20110216	CN200920174468U	20091117
CN202099156 U	20120104	CN201120141775U	20110506
EP2593612 A1	20130522	EP20110807190	20110104
EP2593612 A4	20150506	EP20110807190	20110104
HK1141408 A1	20130919	HK20100107966	20100820
US2010266742 AA	20101021	US20090747902	20091023
US2012060531 AA	20120315	US20110319676	20110104
US2013042642 AA	20130221	US20120657469	20121022
US7861544 BB	20110104	US20090747902	20091023
US8302412 BB	20121106	US20110319676	20110104
US8650892 BB	20140218	US20120657469	20121022
WO10056486 A2	20100520	WO2009US61811	20091023
WO10056486 A3	20100805	WO2009US61811	20091023
WO12009024 A1	20120119	WO2011US20077	20110104

Priority:

US20080115534P 20081117	WO2009US61811 20091023	US20090747902 20091023
WO2011US20077 20110104	US20100747902 20100614	US20100365068P 20100716
US20110319676 20110104	US20120657469 20121022	US20110319676 20111111

Probable Assignee: ECOLOBLUE INC

Assignee(s): (std): BLUE ECOLOGY CO LTD ; ECOLOBLUE INC ; FERREIRA WAYNE ; TIELEMAN HENRI JAMES

Assignee(s): BLUE ECOLOGY CO

Inventor(s): (std): FERREIRA WAYNE ; TIELEMAN HENRI JAMES ; WAYNE FERREIRA ; HENRI JAMES TIELEMAN ; TELEMANN HENRY JAMES

Inventor(s): HENRY JAMES TELEMANN ; WAYNEFERREIRA ; HENRY JAMESTELEMANN

Agent(s): FREI PATENT ATTORNEYS; OPPEDAHL PATENT LAW FIRM LLC; OPPEDAHL CARL

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 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 PE PG PH PL PT RO RS RU 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: NUTRITIONAL WINE AND PREPARATION METHOD THEREOF**Abstract:**

Source: CN102424791A The present invention discloses a nutritional wine and a preparation method thereof. The nutritional wine is prepared by the following raw materials, wherein the raw materials comprise: 100 L of liquor with alcoholicity of 35-55 DEG, 2000 g of tangerine peel, 2000 g of common jujube, 1000 g of walnut meat, 1000 g of pine seed, 1000 g of almond, 2000 g of medlar, 400-500 g of instant **coffee**, and 2000 g of brown sugar. According to the nutritional wine, the liquor is adopted as a base material, the tangerine peel, the medlar, the common jujube, the walnut meat, the pine seed, the almond and other nut adjuvants are added to carry out hot boiling processing; during the processing process, **heavy metals** and harmful substances in the wine are removed by volatilization, such that the mellow characteristic of the liquor is remained, the nutrition in the adjuvants is absorbed; the instant **coffee** and the brown sugar are added, such that the fragrance and the pleasant sensation of the liquor and the freshness of the **coffee** are provided for the drinker, and the human body is not damaged by the wine; during the drinking process, a proper amount of juice can be added to the wine according to the personal preference, such that the favorite alcoholicity and the favorite taste can be adjusted; the nutritional wine of the present invention is benefit to health drinking, civilized drinking, and health spread of wine culture.

Classifications:**International (IPC 8-9):** C12G3/04 (Advanced/Invention)**Family:**

Publication number	Publication date	Application number	Application date
CN102424791 A	20120425	CN201110457494	20111231

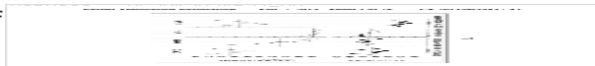
Priority:

CN201110457494 20111231

Probable Assignee: GUANGHUI LI**Assignee(s):** (std): GUANGHUI LI**Assignee(s):** LI GUANGHUI**Inventor(s):** (std): GUANGHUI LI**Inventor(s):** LI GUANGHUI

Title: SIMULTANEOUS CO-TREATMENT OF PHYSICAL AND MENTAL SYMPTOMS RELATED TO SEVERE MENTAL DISORDERS BY A SPECIALLY FERMENTED SOY FORMULATION (FSWW08)

Abstract: Source: US2013034537A A method of treating severe mental diseases and related disorders or conditions includes administering to



a patient in need thereof an effective amount of a composition including isoflavones and Bowman Birk Inhibitory Factor (BBIF). Preferably, the composition is a fermented soy composition. Preferably, one first diagnoses a patient with a particular mental disease or disorder, and then prescribes the composition as a treatment for the particular mental disease or disorder. A patient is preferably given daily a dosage of 3-10 mg of isoflavones and 5-10 CI (chymotrypsin inhibitor) of BBIF per kg of body weight, more preferably a dosage of 5-9 mg of isoflavones and 5-10 CCI of BBIF per kg of body weight, and most preferably a dosage of 5-10 mg of isoflavones and 5-10 CCI of BBIF per kg of body weight. Treatment preferably lasts 7 days-14 days, or until all symptoms disappear.

Classifications:

International (IPC 8-9): A61K31/352 A61K36/185 A61P1/00 A61P1/04 A61P25/00 A61P25/18 A61P25/22 A61P3/00 A61P31/12 (Advanced/Invention)

CPC: A61K31/352 A61K36/48 A61K45/06 A61K2236/19

European: A61K31/352 A61K36/48 A61K45/06 K61K236/19

US: 424/115 514/456

Family:

Publication number	Publication date	Application number	Application date
US2013034537 AA	20130207	US20110315258	20111208
WO12078932 A2	20120614	WO2011US64041	20111208

Priority:

US20100421088P 20101208 US20110503787P 20110701 US20110315258 20111208

Probable Assignee: GOCAN ANCA GABRIELA

Assignee(s): (std): GOCAN ANCA GABRIELA ; ROHR UWE ; WAINRIGHT WALTER

Inventor(s): (std): GOCAN ANCA GABRIELA ; ROHR UWE ; WAINRIGHT WALTER

Agent(s): NEHRBASS SETH M 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 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 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 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: PROCESO INNOVADOR QUE NOS PERMITE OBTENER UN SUPLEMENTO DIETARIO ACTIVANTE CELULAR Innovative process that allows us to obtain a dietary supplement CELL ACTIVATING (Machine translation)

Abstract: Source: CO6490121A Mediante la aplicacion de un Proceso Innovador, lo cual da origen al desarrollo de una Tecnica Maxima, se obtiene un Suplemento Dietario, con especificaciones optimas para el consumo humano, especialmente dirigido a personas con deficiencias de Calcio, pero que no excluye a personas sanas ya que de acuerdo a su composicion este Suplemento Dietario puede ser consumido por cualquier persona sin representar ningun riesgo de salud. El Calcio contenido en este Suplemento Dietario se encuentra en una forma apta, exactamente como el organismo humano lo necesita para sus funciones. El Proceso Innovador aqui utilizado es viable de aplicar en diversas areas de las industrias Alimenticia y Farmacologica, pero este tema hara parte de otra investigacion.



Machine translation: By implementing an innovative process, giving rise to the development of a technique Maxima, you get a dietary supplement with optimal specifications for human consumption, especially designed for people with deficiencies of calcium, but that does not exclude healthy people because according to its composition Dietary Supplement can be consumed by anyone without posing any health risk. Calcium content in the Dietary Supplement is in a suitable way, exactly as the human body needs it for its functions. The innovative process used here is feasible to implement in various areas of Food and pharmaceutical industries, but this issue will be part of another investigation.

Classifications:

International (IPC 8-9): A23P1/02 A23P1/06 (Advanced/Invention)

Family:

Publication number	Publication date	Application number	Application date
CO6490121 A1	20120731	CO20120095964	20120607

Priority:

CO20120095964 20120607

Probable Assignee: BEJARANO JAIDERY

Assignee(s): (std): BEJARANO JAIDERY

Assignee(s): JAIDERY BEJARANO

Inventor(s): (std): BEJARANO JAIDERY

Inventor(s): JAIDERY BEJARANO

Title: PREPARATION METHOD OF THE COMPOUNDS FOR ABSORBING **HEAVY METALS****Abstract:**

Source: US2012264199A The present invention is related to a preparation method of the compounds for absorbing **heavy metals**. First of all, prepare natural vegetable or fruit and extract a B-M sulfur peptide from the said natural vegetable or fruit. Second, place the natural vegetable or fruit into fermentation and extract the mixed nutrient extraction. And then mix the B-M sulfur peptide and the mixed nutrient extraction as the final extraction. Mix the final extraction into drinks. The final extraction will slowly release B-M sulfur peptide when entering the body; through its combination of **heavy metals** and re-absorption by the body, useful materials are retained in the human body while long-term accumulated toxic metals are discharged to repair the body's metabolism.

**Classifications:****International (IPC 8-9):** C07K1/14 (Advanced/Invention)**CPC:** A23L1/3002 A23L1/015 A23L1/3053**US:** 435/272**Family:**

Publication number	Publication date	Application number	Application date
US2012264199 AA	20121018	US20110089269	20110418

Priority:

US20110089269 20110418

Probable Assignee: LIN YUNG CHENG**Assignee(s):** (std): LIN YUNG CHENG**Inventor(s):** (std): LIN YUNG CHENG

Title: MATERIAL SORBENTE A BASE DE MATERIALES RESIDUALES DE LA FABRICACION DE CAFE PARA REMOCION DE CONTAMINANTES EN AGUAS RESIDUALES MATERIAL based sorbent RESIDUAL MATERIALS MANUFACTURING **COFFEE** FOR REMOVAL OF POLLUTANTS IN WASTEWATER (Machine translation)

Abstract:

Source: CO7200052A La presente invencion describe un material sorbente para la remocion de metales

pesados como Cadmio, Mercurio, Cromo y Plomo, pero no limitandose a estos, contaminantes organicos, solidos no deseados y remocion de olores. El sorbente es elaborado a base de materiales residuales de la fabricacion de cafe como pergamino, borra y pelicula plateada y posibles mezclas de estos materiales. The present invention discloses a sorbent material for removal of **heavy metals** such as cadmium, mercury, chromium and lead, but not limited to, organic contaminants, solids and removal of unwanted odors. The sorbent is made from waste materials in the manufacture of **coffee** as parchment and silver skin clears and possible mixtures of these materials.



Classifications:

International (IPC 8-9): C10L5/44 (Advanced/Invention)

CPC: Y02E50/30

Family:

Publication number	Publication date	Application number	Application date
CO7200052 A1	20150227	CO20140251911	20141114

Priority:

CO20140251911 20141114

Probable Assignee: CARMENZA JARAMILLO

Assignee(s): (std): JARAMILLO CARMENZA ; PATINO CLAUDIA PATRICIA

Assignee(s): CARMENZA JARAMILLO ; CLAUDIA PATRICIA PATINO

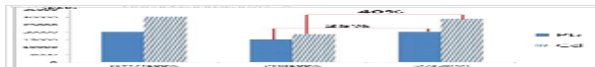
Inventor(s): (std): JARAMILLO CARMENZA ; PATINO CLAUDIA PATRICIA

Inventor(s): CARMENZA JARAMILLO ; CLAUDIA PATRICIA PATINO

Title: COMPOSITIONS FOR REDUCING **HEAVY METALS** IN FOOD

Abstract:

Source: KR20150035092A The present invention relates to a composition for reducing **heavy metals** in food including a by-product of **coffee** and a method for reducing **heavy** metal in food using the same where the composition removes **heavy** metal with use of natural materials which are harmless to the human body and accordingly enables people to safely take food.



Classifications:

International (IPC 8-9): A23L1/015 (Advanced/Invention)

Family:

Publication number	Publication date	Application number	Application date
KR20150035092 A	20150406	KR20130115255	20130927

Priority:

KR20130115255 20130927

Probable Assignee: SAMSUNG WELSTRY INC

Assignee(s): SAMSUNG WELSTRY INC

Inventor(s): CHOI JUN HYUK ; HEO DONG HYE ; KANG GYOUNG WON ; KIM JAE EUN ; KIM JEONG SOON ; KWEON SOON JAE ; SONG AE LEE

Title: Reduce the alkaline soil Pb, Cr passivating agent activity and its application (Machine translation)

Abstract:

Source: CN105315998A The present invention discloses a method for reducing the alkaline soil Pb, Cr passivating agent activity and its application, which belongs to the field of **heavy metals** in soil remediation. The passivating agent consists of the following raw materials in weight mixed: microbial agents 5 to 20 parts, from 10 to 30 parts by Marc pomegranate, **coffee** grounds from 15 to 35 parts, Cordyceps medium residues 5 to 30 parts, 10 to 35 parts by blueberry pomace. Compared with the prior art, the passivation of the present invention can be significantly governance lead, chromium mild alkaline Soil pollution, and low-cost, simple operation and management, has a good application value.

Classifications:

International (IPC 8-9): A01N65/08 A01P1/00 A01P3/00 B09C1/08 C09K101/00 C09K109/00 C09K17/00 (Advanced/Invention);
C09K101/00 C09K109/00 (Advanced/Non-invention)

Family:

Publication number	Publication date	Application number	Application date
CN105315998 A	20160210	CN201510664250	20151014

Priority:

CN201510664250 20151014

Probable Assignee:

JINAN YI STATE BIOTECHNOLOGY LTD

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