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(81) États désignés (sauf indication contraire, pour tout titre de protection nationale disponible) : AE, AG, AL, AM,

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22 avril 2010



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(54) Title : USE OF PHYTOECDYSONES IN THE PREPARATION OF A COMPOSITION FOR ACTING ON METABOLIC SYNDROME

(54) Titre : UTILISATION DE PHYTOECDYSONES DANS LA PREPARATION D'UNE COMPOSITION POUR AGIR SUR LE SYNDROME METABOLIQUE

(57) Abstract : In order to reduce the negative effects of metabolic syndrome on the mammalian organism, it is envisaged in the invention to use phytoecdysones, so as to decrease the fat mass in an individual, in particular an overweight individual. The phytoecdysones are advantageously incorporated into a food composition. According to the invention, the phytoecdysones can be derived from food plants, such as quinoa.

(57) Abrégé : Pour diminuer les effets négatifs du syndrome métabolique sur l'organisme des mammifères, il est prévu dans l'invention d'utiliser des phytoecdysones, de manière à diminuer la masse grasse chez un individu notamment en surpoids. Les phytoecdysones sont avantageusement incorporées dans une composition alimentaire. Selon l'invention, les phytoecdysones peuvent être issues de plantes alimentaires, telles que le quinoa.

**INTERNATIONAL SEARCH REPORT**

International application No  
PCT/FR2008/052088

**A. CLASSIFICATION OF SUBJECT MATTER**  
 INV. A61K36/185 A61K31/56 A23L1/00 A23K1/00 A61P3/04

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
 A61K A61P A23L A23K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)  
 EPO-Internal, WPI Data, CHEM ABS Data, BIOSIS, EMBASE

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DATABASE WPI Week 1992 Thomson Scientific, London, GB; AN 1992-189214 XP002483882 "New steroidal insect metamorphosis hormone, e.g. alpha-ecdysone, inokosterone and pterosterone, for treating diabetes." & JP 04 124135 A (VERITAS CORP.) 24 April 1992 (1992-04-24) cited in the application abstract	8-10
Y	----- -/--	1-7

Further documents are listed in the continuation of Box C.       See patent family annex.

\* Special categories of cited documents :

<p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier document but published on or after the international filing date</p> <p>"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</p> <p>"O" document referring to an oral disclosure, use, exhibition or other means</p> <p>"P" document published prior to the international filing date but later than the priority date claimed</p>	<p>"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</p> <p>"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</p> <p>"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.</p> <p>"&amp;" document member of the same patent family</p>
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Date of the actual completion of the international search  <b>3 March 2010</b>	Date of mailing of the international search report  <b>09/03/2010</b>
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Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer  <b>Friederich, Martin</b>
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## INTERNATIONAL SEARCH REPORT

International application No

PCT/FR2008/052088

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	<p>DATABASE WPI Thomson Scientific, London, GB; AN 2005-243149 XP002483883 "Use of ecdysteronein preparation of insulin resistance medicine." &amp; CN 1 557 324 A (CHEN Q.) 29 December 2004 (2004-12-29) cited in the application abstract</p>	1-7
X	<p>DATABASE TCM-SIPO SIPO; CN1280010, Kunming Pharmaceutical Co. Ltd. 17 October 2001 (2001-10-17), YANG C.: "An oral medicine for the treatment of diabetes and its preparation method." XP002483879 cited in the application abrégé; abstract</p>	8-10
Y	<p>ZHU N. ET AL.: "Ecdysteroids of quinoa seeds (Chenopodium quinoa Willd.)" J. AGRIC. FOOD CHEM., vol. 49, 2001, pages 2576-2578, XP002483876 cited in the application voir abrégé. page 2576 col. droite, page 2578</p>	1-7
X	<p>KUTEPOVA T.A. ET AL.: "Hypoglycemic activity of the total ecdysteroid extract from Ajuga turkestanica." PHARM. CHEM. J., vol. 35, no. 11, 2001, pages 608-609, XP002483877</p>	8-10
Y	<p>voir le document entier</p>	1-7
Y	<p>DATABASE CA CHEMICAL ABSTRACTS SERVICE, COLUMBUS, OHIO, US; Doklady Akad. Nauk Respub. Uzbekistan (4) 46-49 1997, SYROV V.N. ET AL.: "Hypoglycemic action of phytoecdysteroids and somemechanisms of its realisation in experimental animals." XP002483880 abrégé; abstract</p>	1-7
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## INTERNATIONAL SEARCH REPORT

International application No

PCT/FR2008/052088

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	DATABASE BIOSIS BIOSCIENCES INFORMATION SERVICE, PHILADELPHIA, PA, US; Voprosy Meditsinskoi Khimii, vol.28 pages 101-105 1982, MIRONOVA V.N. ET AL.: "Hypocholesterolemic action of phytoecdysones in experimental hypercholesterolemia in rats." XP002483881 cited in the application abstract	1-7
A	----- GB 2 420 066 A (NOR FEED AS [DK]) 17 May 2006 (2006-05-17) abrégé et p.4	1-10
X	----- LAFONT R. ET DINAN L.: "Practical use of ecdysteroids in mammals including humans :an update." J. INSECT SCI., vol. 3, no. 7, 2003, pages 1-30, XP002483878 cited in the application	8-10
Y	voir pages 10-15, page 16 col. droite, tableau 5.	1-7
X	----- CATALAN R E ET AL: "Alterations in rat lipid metabolism following ecdysterone treatment" COMPARATIVE BIOCHEMISTRY AND PHYSIOLOGY. B. COMPARATIVEBIOCHEMISTRY, PERGAMON PRESS, LONDON, GB, vol. 81, no. 3, 1 January 1985 (1985-01-01), pages 771-775, XP023529585 ISSN: 0305-0491 [retrieved on 1985-01-01] page 774, column 1 -- last paragraph -----	1-10

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/FR2008/052088

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
JP 4124135	A	24-04-1992	NONE	
CN 1557324	A	29-12-2004	NONE	
GB 2420066	A	17-05-2006	NONE	



RAPPORT DE RECHERCHE INTERNATIONALE

Demande internationale n°

PCT/FR2008/052088

C(suite). DOCUMENTS CONSIDERES COMME PERTINENTS		
Catégorie*	Identification des documents cités, avec, le cas échéant, l'indication des passages pertinents	no. des revendications visées
Y	<p>DATABASE WPI Thomson Scientific, London, GB; AN 2005-243149 XP002483883 "Use of ecdysteronein preparation of insulin resistance medicine." &amp; CN 1 557 324 A (CHEN Q.) 29 décembre 2004 (2004-12-29) cité dans la demande abrégé</p>	1-7
X	<p>DATABASE TCM-SIPO SIPO; CN1280010, Kunming Pharmaceutical Co. Ltd. 17 octobre 2001 (2001-10-17), YANG C.: "An oral medicine for the treatment of diabetes and its preparation method." XP002483879 cité dans la demande abrégé; abrégé</p>	8-10
Y	<p>ZHU N. ET AL.: "Ecdysteroids of quinoa seeds (Chenopodium quinoa Willd.)" J. AGRIC. FOOD CHEM., vol. 49, 2001, pages 2576-2578, XP002483876 cité dans la demande voir abrégé. page 2576 col. droite, page 2578</p>	1-7
X	<p>KUTEPOVA T.A. ET AL.: "Hypoglycemic activity of the total ecdysteroid extract from Ajuga turkestanica." PHARM. CHEM. J., vol. 35, no. 11, 2001, pages 608-609, XP002483877 voir le document entier</p>	8-10
Y	<p>DATABASE CA CHEMICAL ABSTRACTS SERVICE, COLUMBUS, OHIO, US; Doklady Akad. Nauk Respub. Uzbekistan (4) 46-49 1997, SYROV V.N. ET AL.: "Hypoglycemic action of phytoecdysteroids and somemechanisms of its realisation in experimental animals." XP002483880 abrégé; abrégé</p>	1-7

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C(suite). DOCUMENTS CONSIDERES COMME PERTINENTS		
Catégorie*	Identification des documents cités, avec, le cas échéant, l'indication des passages pertinents	no. des revendications visées
Y	<p>DATABASE BIOSIS BIOSCIENCES INFORMATION SERVICE, PHILADELPHIA, PA, US; Voprosy Meditsinskoi Khimii, vol.28 pages 101-105 1982, MIRONOVA V.N. ET AL.: "Hypocholesterolemic action of phytoecdysones in experimental hypercholesterolemia in rats." XP002483881 cité dans la demande abrégé</p>	1-7
A	<p>GB 2 420 066 A (NOR FEED AS [DK]) 17 mai 2006 (2006-05-17) abrégé et p.4</p>	1-10
X	<p>LAFONT R. ET DINAN L.: "Practical use of ecdysteroids in mammals including humans :an update." J. INSECT SCI., vol. 3, no. 7, 2003, pages 1-30, XP002483878 cité dans la demande</p>	8-10
Y	<p>voir pages 10-15, page 16 col. droite, tableau 5.</p>	1-7
X	<p>CATALAN R E ET AL: "Alterations in rat lipid metabolism following ecdysterone treatment" COMPARATIVE BIOCHEMISTRY AND PHYSIOLOGY. B. COMPARATIVEBIOCHEMISTRY, PERGAMON PRESS, LONDON, GB, vol. 81, no. 3, 1 janvier 1985 (1985-01-01), pages 771-775, XP023529585 ISSN: 0305-0491 [extrait le 1985-01-01] page 774, colonne 1 - dernier alinéa</p>	1-10

# RAPPORT DE RECHERCHE INTERNATIONALE

Renseignements relatifs aux membres de familles de brevets

Demande internationale n°

PCT/FR2008/052088

Document brevet cité au rapport de recherche		Date de publication	Membre(s) de la famille de brevet(s)	Date de publication
JP 4124135	A	24-04-1992	AUCUN	
CN 1557324	A	29-12-2004	AUCUN	
GB 2420066	A	17-05-2006	AUCUN	