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(71) Applicant (for all designated States except US): **ALBION INTERNATIONAL, INC.** [US/US]; 101 North Main Street, Clearfield, UT 84015 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **MOTYKA, Max, R.** [US/US]; 27501 Jefferson Avenue, ST. Clair Shores, MI 48081 (US). **HARNISH, Rick** [US/US]; 9001 SW 122ND Avenue, APT. 103, Miami, FL 33186 (US). **ASHMEAD, Stephen, D.** [US/US]; 1322 West 2175 North, Clinton, UT 84015 (US). **ASHMEAD, H. Dewayne** [US/US]; 304 South Mountain Road, Fruit Heights, UT 84037 (US).

(74) Agents: **WESTERN, M. Wayne** et al.; Thorpe, North & Western, LLP, P.O. Box 1219, Sandy, UT 84091-1219 (US).

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(54) Title: NON-GMO METAL AMINO ACID CHELATES AND NON-GMO METAL AMINO ACID CHELATE-CONTAINING COMPOSITIONS

(57) Abstract: Non-GMO metal amino acid chelate compositions, non-GMO formulations containing non-GMO metal amino acid chelates, methods of preparing non-GMO metal amino acid chelates, and methods of administering non-GMO metal amino acid chelates are provided. Specifically, the present invention provides a non-GMO metal amino acid chelate composition, comprising amino acid chelates having a naturally occurring amino acid to metal molar ratio of from about 1:1 to 4:1, wherein both the amino acid and the source of the metal used to form the amino acid chelate are non-GMO.



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INTERNATIONAL SEARCH REPORT

International application No.

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A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) : A61K 33/24, 26, 30, 32, 34; C07F 3/00, 15/00
 US CL : 424/617, 618, 630, 639, 641, 646, 647, 648, 655, 665, 682; 556/1, 149
 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)
 U.S. : 424/617, 618, 630, 639, 641, 646, 647, 648, 655, 665, 682; 556/1, 149

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 practicable, search terms used)
 PubMed (text: metal amino acid chelate)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
x	Nakamoto, K. et al. Infrared spectra of aqueous solutions. I. Metal chelate compounds of amino acids. J. Am. Chem. Soc. 1961, Vol. 83, No. 22, pages 4528-4532, especially page 4531.	1-4
x	Lumb, R. R., et al. Metal chelating tendencies of glutamic and aspartic acids. J. Phys. Chem. 1953, Vol. 57, No. 7, pages 690-693, especially page 692.	1-4, 8
x	US 5,504,055 (Hsu) 02 April 1996 (02.04.1996) Column 2, lines 34-67; Column 3, lines 1-67; Column 4, lines 1-14; Column 7, lines 55-67; claim 1-11.	1-8, 13-15, 23-25, 30 and 31
y		----- 9-11 and 26-29
x	US 6,426,424 (Ashmead et al.) 30 July 2002 (30.07.2002), column 2, lines 62-67; column 5, lines 30-35; column 7, lines 14-23; column 8, lines 8-67; column 9, lines 1-67; claims 1-28.	1-8, 13-18, 22-25, 30, 31
y		----- 9-12, 26-29
x	US 4,725,427 (Ashmead et al.) 16 February 1988 (16.02.1988), Column 1, lines 30-40; Column 4, lines 37-45; Column 5, lines 55-67; Column 6, lines 1-18 and 32-35; Column 9, lines 15-67; claims 1-13.	1-8, 13-18, 20-25, 30, 31
y		----- 9-12, 19, 26-29

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See patent family annex.

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Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner of Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230	Authorized officer Gary Kunz Telephone No. 571-272-8509