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7 June 2007

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METAL OXIDE COATING OF WATER INSOLUBLE INGREDIENTS

(57) Abstract: The invention relates to process for coating a solid, water-insoluble particulate matter, with a metal oxide comprising: (a) contacting the solid water-insoluble particulate matter with a cationic additive in an aqueous medium to obtain a dispersion of said particulate matter having a positive zeta potential; (b) coating the solid water-insoluble particulate matter by precipitation of a metal oxide salt onto the surface of the particulate matter, forming a metal oxide layer thereon; and (c) aging said coating layer. The invention further relates to coated particulate matter obtained by the process and to compositions comprising solid, water-insoluble particulate matter, coated by a metal oxide layer, the particulate matter being a dermatological active agent or a pesticide. The invention additionally relates to methods of treating a surface condition in a subject using compositions comprising solid, water insoluble dermatologically active agent, coated by a metal oxide layer.



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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

INV. B01J13/02 B01J13/22 A01N25/26 A01N25/28 A01N53/00
A01N51/00

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)

B01J A01N A61K A61Q A01K C01B

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, CHEM ABS Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X Y	EP 0 972 563 A (MAX PLANCK GESELLSCHAFT [DE]) 19 January 2000 (2000-01-19) abstract paragraphs [0002], [0006], [0009], [0010], [0012], [0014] - [0019], [0021], [0024], [0026] - [0031]; claims 16,23-25; example ----- -/--	1-37 72,73, 75-87

☒ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *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)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *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
- *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
- *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.
- *Z* document member of the same patent family

Date of the actual completion of the international search

12 March 2007

Date of mailing of the international search report

19/03/2007

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INTERNATIONAL SEARCH REPORT

International application No

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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	JUNJIE YUAN: "ORGANIC PIGMENT PARTICLES COATED WITH COLLOIDAL NANO-SILICA PARTICLES VIA LAYER-BY-LAYER ASSEMBLY" CHEMISTRY OF MATERIALS, AMERICAN CHEMICAL SOCIETY, WASHINGTON, DC, US, vol. 17, no. 14, 17 June 2005 (2005-06-17), pages 3587-3594, XP008071479 ISSN: 1520-5002 cited in the application abstract page 3588 page 3590 page 3594 figures 1(scheme),5	1-37
X	M. P. B. VAN BRUGGEN: "Preparation and Properties of Colloidal Core-Shell Rods with Adjustable Aspect Ratios" LANGMUIR, vol. 14, no. 9, 31 March 1998 (1998-03-31), pages 2245-2255, XP002408227 cited in the application abstract page 2246	1-23, 33-35
X	EP 0 462 388 A2 (JAPAN SYNTHETIC RUBBER CO LTD [JP]; UNIV CLARKSON [US]) 27 December 1991 (1991-12-27) abstract page 4, line 11 - page 5, line 3	1,22, 24-29
Y	US 2005/037087 A1 (LAPIDOT NOA [IL] ET AL) 17 February 2005 (2005-02-17) cited in the application abstract paragraph [0320]; examples 4-20	72,73
X	WO 98/15183 A (DU PONT [US]; FOSTER JAMES PERRY [US]) 16 April 1998 (1998-04-16) abstract	74-87
Y	page 1, line 5 - line 8 page 2, lines 16,28 - line 30 page 4 - page 5; claims 1-10; examples 1-3	75-87
X	US 2002/064541 A1 (LAPIDOT NOA [IL] ET AL) 30 May 2002 (2002-05-30) abstract paragraphs [0002], [0019], [0037], [0045] - [0048], [0053] - [0057], [0063], [0080] - [0085], [0117], [0119], [0130], [0131] paragraphs [0138] - [0142], [0225] - [0232]	38-63,71
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INTERNATIONAL SEARCH REPORT

International application No

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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 01/80823 A2 (SOL GEL TECHNOLOGIES LTD [IL]; LAPIDOT NOA [IL]; MAGDASSI SHLOMO [IL];) 1 November 2001 (2001-11-01) abstract page 1 page 6 page 15 page 17 - page 23 -----	38-63,71
X	WO 2005/009604 A (SOL GEL TECHNOLOGIES LTD [IL]; NAIGERTSIK OLEG [IL]; ROTHSCHILD SOREL) 3 February 2005 (2005-02-03) abstract page 3 page 6 - page 13 page 15 - page 16 page 26 -----	38-63, 71,74, 76-87
X	EP 0 581 651 A2 (SUZUKI YUSHI KOGYO KK [JP]; KOSE CORP [JP] SUZUKI YUSHI KOGYO KK [DE];) 2 February 1994 (1994-02-02) abstract page 10; claims 1-11; example 2 -----	38-63,71
X	US 4 464 317 A (THIES CURT [US] ET AL) 7 August 1984 (1984-08-07) abstract column 1, line 53 - column 2, line 13 column 3, line 1 - line 21 column 5, line 51 - line 53 column 7, line 26 - line 29 claims 1,7; example 1 -----	74,76-87

INTERNATIONAL SEARCH REPORT

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Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: 64-70
because they relate to subject matter not required to be searched by this Authority, namely:
The subject matter of claims 64-70 is not searchable by the ISA according to Art. 17 (2)(a)(i), R. 39.1(iv) and R. 67.1(iv) because it deals with a method of treatment of a subject where the subject is a mammal, preferably human (description of the application, p. 25, l. 32-33).
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☒ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-37, 72-73, 75-87

A process for coating a solid (cl. 1-36), coated particulate matter (cl. 37), use of coated particulate matter according to claim 37 (cl. 72-73), compositions for pest control according to claim 37 (cl. 75, 76-87 as far as dependent on claim 75);

2. claims: 38-63

A pharmaceutical, cosmetic or cosmetical composition (cl. 38-63);

3. claim: 71

Use of coated particulate matter (cl. 71);

4. claims: 74, 76-87

Compositions for pest control (cl. 74, 76-87 as far as dependent on claim 74).

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

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