



- (51) International Patent Classification:
C23C 18/16 (2006.01) C23C 18/42 (2006.01)
B01J 19/18 (2006.01) C23C 18/54 (2006.01)
C23C 18/08 (2006.01)
- (21) International Application Number: PCT/EP2014/062904
- (22) International Filing Date: 18 June 2014 (18.06.2014)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 1310860.0 18 June 2013 (18.06.2013) GB
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- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

[Continued on next page]

(54) Title: METHOD AND APPARATUS FOR PREPARING COATED PARTICLES

(57) Abstract: The present invention relates to a method of forming a metal coated particle, to metal coated particles prepared according to the method and the use of these metal coated particles. The method comprising the steps of: providing a source of base particles to be coated; providing a source of a metal-comprising coating particles; and feeding the base particles specified in step (a) and the source of metal comprising coating particles specified in step (b) into a continuous reactor including heat exchange means to cause contact of the base particles with the source of coating particles thereby to form the metal coated particles. The coated particles include a homogeneous coating and can be used in a variety of applications.

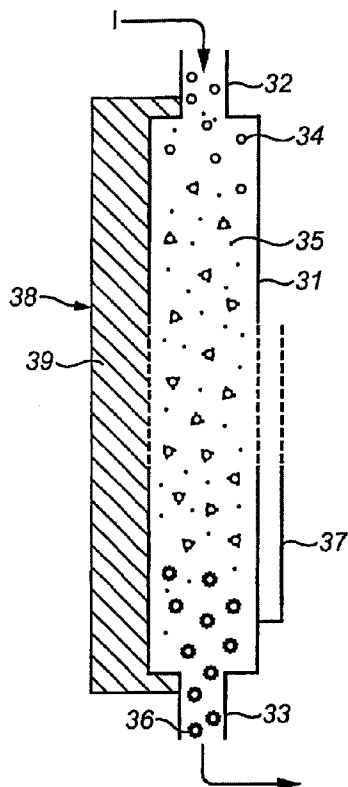


FIG. 3



(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Published:

- *with international search report (Art. 21(3))*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

(88) Date of publication of the international search report:

26 February 2015

INTERNATIONAL SEARCH REPORT

International application No PCT/EP2014/062904

A. CLASSIFICATION OF SUBJECT MATTER
 INV. C23C18/16 B01J19/18 C23C18/08 C23C18/42 C23C18/54
 ADD.

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 C23C

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)
 EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2011/104043 A1 (NIESZ KRISZTIAN [HU] ET AL) 5 May 2011 (2011-05-05)	1-24,26, 27, 29-36, 40-48
Y	paragraphs [0040] - [0046] paragraphs [0064] - [0075] example 2 figure 1	25,28, 37-39
X	----- SEUNG-KON LEE ET AL: "Synthesis, assembly and reaction of a nanocatalyst in microfluidic systems: a general platform", LAB ON A CHIP, vol. 12, no. 20, January 2012 (2012-01), page 4080, XP055139388, ISSN: 1473-0197, DOI: 10.1039/c2lc40186j section Results and discussion page 2 ----- -/--	1-13, 19-21, 23,24, 26, 29-36,48

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 application or patent 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>"&" document member of the same patent family</p>
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Date of the actual completion of the international search 22 September 2014	Date of mailing of the international search report 12/01/2015
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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 Le Hervet, Morgan
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INTERNATIONAL SEARCH REPORT

International application No

PCT/EP2014/062904

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>MINGYUAN GE ET AL: "Scalable preparation of porous silicon nanoparticles and their application for lithium-ion battery anodes", NANO RESEARCH, vol. 6, no. 3, 6 February 2013 (2013-02-06), pages 174-181, XP055139310, ISSN: 1998-0124, DOI: 10.1007/s12274-013-0293-y sections 2.1 Synthesis of porous silicon nanoparticles and 3.1 Formation of porous silicon nanoparticles -----</p>	25,28, 37-39

INTERNATIONAL SEARCH REPORT

International application No.
PCT/EP2014/062904

Box No. 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.:
because they relate to subject matter not required to be searched by this Authority, namely:

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 No. 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 fees, this Authority did not invite payment of additional fees.

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.:

1-48

Remark on Protest

- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- 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: 1-48

A method for fabricating a plurality of metal coated particles in a liquid medium ; the metal coated particles as such.

2. claims: 49-73

An apparatus comprising a continuous reactor including heat exchange means

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/EP2014/062904

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2011104043 A1	05-05-2011	AU 2009241682 A1	05-11-2009
		CN 102076405 A	25-05-2011
		EP 2288439 A1	02-03-2011
		JP 2011522787 A	04-08-2011
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		UA 100053 C2	12-11-2012
		US 2011104043 A1	05-05-2011
		WO 2009133418 A1	05-11-2009
