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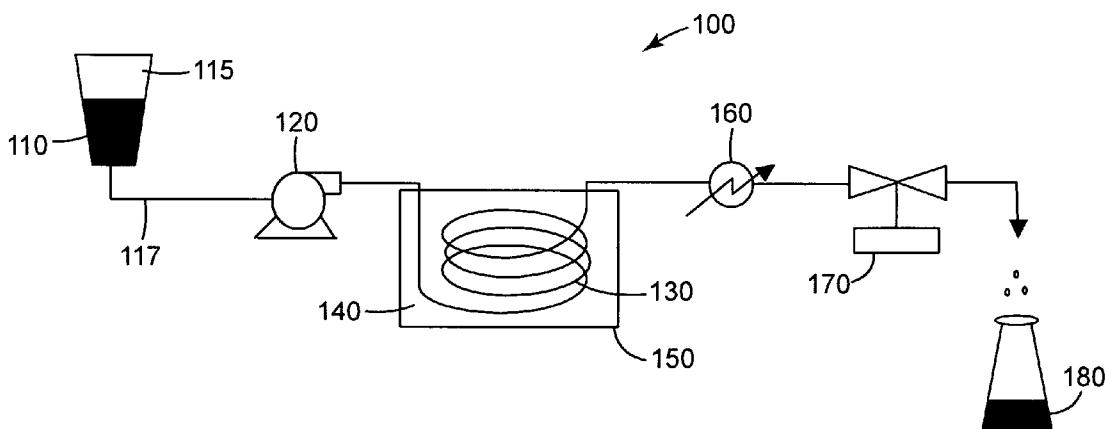
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11/680,365 28 February 2007 (28.02.2007) US(71) **Applicant:** 3M INNOVATIVE PROPERTIES COMPANY [US/US]; 3M Center, Post Office Box 33427, Saint Paul, Minnesota 55133-3427 (US).(72) **Inventors:** MULLINS, Sarah M.; 3M Center, Post Office Box 33427, Saint Paul, Minnesota 55133-3427 (US). TIEFENBRUCK, Grant F.; 3M Center, Post Office Box 33427, Saint Paul, Minnesota 55133-3427 (US). ANDERSON, Danny B.; 3M Center, Post Office Box 33427, Saint Paul, Minnesota 55133-3427 (US).(74) **Agents:** LOWN, Jean A., et al.; 3M Center, Office of Intellectual Property Counsel, Post Office Box 33427, Saint Paul, Minnesota 55133-3427 (US).(81) **Designated States** (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,(84) **Designated States** (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).**Declarations under Rule 4.17:**

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(U))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(Hi))

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(88) **Date of publication of the international search report:**
20 November 2008(54) **Title:** METHODS OF MAKING IRON-CONTAINING METAL OXIDE NANOPARTICLES*JIQ- i*(57) **Abstract:** Methods of preparing metal oxide nanoparticles are described. The methods involve the thermal decomposition of a metal-carboxylate complex within a continuous, flow-through, tubular reactor. The resulting metal oxide nanoparticles contain iron and can be magnetic, non-agglomerated, crystalline or a combination thereof.

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INTERNATIONAL SEARCH REPORT

International application No
PCT/US2008/053247

A. CLASSIFICATION OF SUBJECT MATTER
INV. C01G49/00 C01G49/08

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)
COIG

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

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	<p>WO 2006/057467 A (SEOUL NAT UNIV IND FOUNDATION [KR]; HYEON TAEG-HWAN [KR]; PARK JONG-NA) 1 June 2006 (2006-06-01) page 1, line 19 - page 2, line 10 page 6, line 1 - page 9, line 21 examples</p> <p>-----</p> <p>US 5 652 192 A (MATSON DEAN W [US] ET AL) 29 July 1997 (1997-07-29) column 1, lines 16-50 column 2, lines 31-35 column 3, lines 33-65 column 4, line 33, paragraph 57; figure 1</p> <p>-----</p> <p>-/-</p>	1-20
Y		1-20

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
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- '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

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- '&' document member of the same patent family

Date of the actual completion of the international search

10 September 2008

Date of mailing of the international search report

25/09/2008

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INTERNATIONAL SEARCH REPORT

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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
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A	PARK JONGNAM ET AL: "Ultra-large-scale syntheses of monodisperse nanocrystals" NATURE MATERIALS, NATURE PUBLISHING GROUP, LONDON, GB, vol. 3, no. 12, 28 November 2004 (2004-11-28), pages 891-895, XP002368844 ISSN: 1476-4660 the whole document -----	1-20
A	WILLIAM W YU ET AL: "Synthesis of monodisperse iron oxide nanocrystals by thermal decomposition of iron carboxylate salts" CHEMINICAL COMMUNICATIONS, 2 September 2004 (2004-09-02), pages 2306-2307, XP002495319 the whole document -----	1-20

INTERNATIONAL SEARCH REPORT**Information on patent family members**

International application No PCT/US2008/053247

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US 7160525	B1 09-01-2007	NONE		