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(54) Title: MICROSTRUCTURED GLASS SUBSTRATES

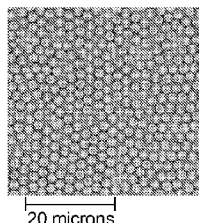


Figure 1A

(57) Abstract: Light scattering inorganic substrates comprising monolayers and methods for making light scattering inorganic substrates comprising monolayers useful for, for example, photovoltaic cells are described herein. One embodiment is a method for making a light scattering inorganic substrate. The method comprises providing an inorganic substrate comprising at least one surface, forming a monolayer of inorganic particles on the at least one surface to form a coated substrate, heating the coated substrate above the softening point of the inorganic substrate, and pressing the inorganic particles into the at least one surface form the light scattering inorganic substrate.



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INTERNATIONAL SEARCH REPORT

International application No

PCT/US2011/026003

A. CLASSIFICATION OF SUBJECT MATTER

INV. C03C17/00 C03C23/00 H01L31/0216 H01L31/0236
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)

C03C H01L G02B

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

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 1 167 313 A1 (NIPPON SHEET GLASS CO LTD [JP]) 2 January 2002 (2002-01-02) examples 7-9	1-15
X	US 2008/276990 A1 (ZHOU WEIDONG [US] ET AL) 13 November 2008 (2008-11-13) paragraph [0050] - paragraph [0056] figures 4-8	1-15
X	US 2004/237590 A1 (SAKOSKE GEORGE E [US] ET AL) 2 December 2004 (2004-12-02) paragraph [0024] - paragraph [0035]	1-9
X	DE 32 31 183 A1 (BBC BROWN BOVERI & CIE [DE]) 23 February 1984 (1984-02-23) the whole document	1,2,4,5, 8,9



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.

"&" document member of the same patent family

Date of the actual completion of the international search

20 June 2011

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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		DE 3231183 A1	23-02-1984
		JP 59054641 A	29-03-1984

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

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

1. claims: 1-15

A method for making a light scattering inorganic substrate, and photovoltaic device incorporating such a substrate.

2. claims: 16-21

An article comprising a substrate with inorganic particles disposed on its surface, the on average particle volume sunk into the surface of the substrate being defined.

3. claims: 22-24

An article comprising a substrate with inorganic particles disposed on its surface, the average particle diameter and center-to-center spacing being defined

4. claim: 25

An article comprising a substrate with voids disposed on its surface, the height of the voids being defined

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2011/026003

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.:

1-15

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.