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(54) Title: AN APPARATUS FOR AND METHOD OF SAMPLING AND COLLECTING POWDERS FLOWING IN A GAS STREAM

(57) Abstract: A device for sampling of a mixture of ultrafine particles within a moving gas stream includes a suction generator, at least one sample collection element, and a conduit structure coupling the sample collection element with the suction generator. In some embodiments, the suction generator is configurable to separate by suction a portion of a gas stream containing a plurality of ultrafine particles, and to entrain with a motive fluid forming an output mixture. In some embodiments, a conduit is configured to accept a gas stream containing ultrafine particles and to channel it to the collection element.



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| A. CLASSIFICATION OF SUBJECT MATTER IPC: G01N 1/24(2007.01),1/02(2007.01);B08B 9/08(2007.01);B05B 7/30(2007.01) USPC: 73/421.5,28;134/108,109,169,95.1,95.3,103.1;239/104,106,108,112,310,318,398 According to International Patent Classification (IPC) or to both national classification and IPC | | |
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| B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) U.S. : 73/421.5,28;134/108,109,169,95.1,95.3,103.1;239/104,106,108,112,310,318,398 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) | | |
| C. DOCUMENTS CONSIDERED TO BE RELEVANT | | |
| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
| X,Y | US 4,008,620 A (NARATO et al) 22 February 1977 (22.02.1977), Abstract, Figure 1 & 2, Column 6, line 46 - Column 7, line 30. | 1-3,5-6,10-15 |
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C. (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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| A | US 3,741,001 A (FLETCHER et al) 26 June 1973 (26.06.1973) | |