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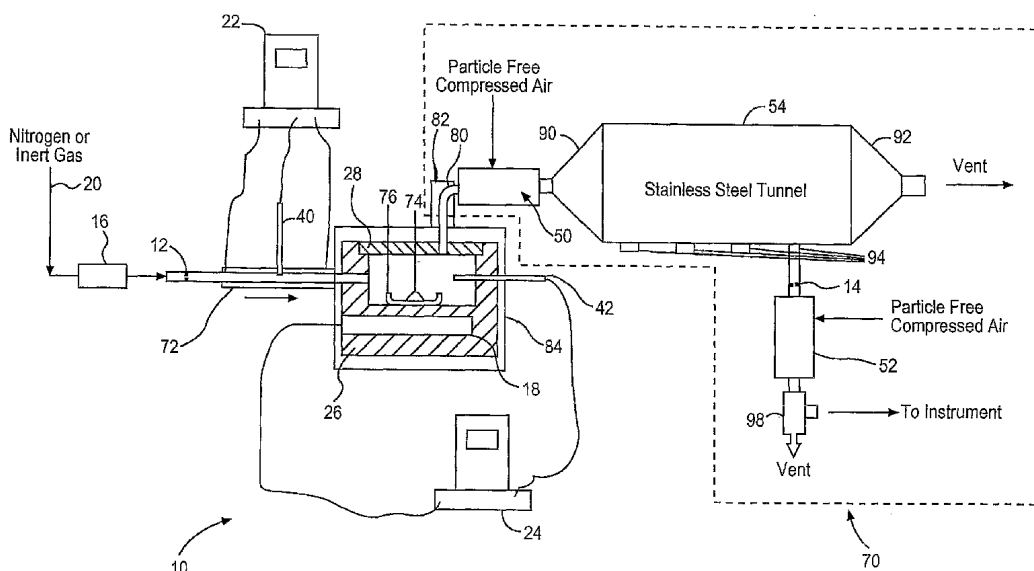
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Declarations under Rule 4.17:
 — as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))

[Continued on next page]

(54) Title: PURE PARTICLE GENERATOR



(57) Abstract: A particle generator is able to generate pure particles for solid or liquid materials with melting points over several hundred degrees Celsius. The material is heated to generate the vapor in a small chamber. Heated nitrogen or some inert gas is used as the carry gas to bring the mixture into a dilution system. As the super saturation ratio of the material is large enough and over a critical value, particles are formed in the dilution system by homogenous nucleation, and grown in the same dilution system as well. The different size distributions and concentrations of the particles can be obtained by varying dilution parameters, such as residence time and dilution ratio.

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INTERNATIONAL SEARCH REPORT

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PCT/US06/06582

A. CLASSIFICATION OF SUBJECT MATTER

IPC: **B22F 9/08(2006.01)**

USPC: 425/6,10,82.1;264/10

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)
U.S. : 425/6,10,82.1;264/10

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 4,586,367 (LEWIS) 06 May 1986 (06.05.1986), figure 1, coulmn 5, lines 45-58; column 6, lines 41-55.	1-3,8-14,16-19 ----- 4-7,15
Y --- A	US 6,331,290 B1 (MORGAN) 18 December 2001 (18.12.2001), figure 1, column 2 lines 23-47, abstract.	15 ----- 4-7
Y	US 5,058,440 (GRAZE,Jr.) 22 October 1991 (22.10.1991), figures 1,2, column 3, lines 9-22, column 5, lines 19-30, column 7, lines 3-39.	4-7

Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents:	"T"
"A" document defining the general state of the art which is not considered to be of particular relevance	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
"E" earlier application or patent published on or after the international filing date	"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
"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)	"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
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
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