Title (en)

METHOD FOR PRODUCING VERY FINE PARTICLES WITH A JET MILL AND JET MILL FOR SAME

Title (de)

VERFAHREN ZUR ERZEUGUNG FEINSTER PARTIKEL MIT EINER STRAHLMÜHLE UND STRAHLMÜHLE DAFÜR

Title (fr)

PROCEDE DE PRODUCTION DE PARTICULES FINES A L'AIDE D'UN BROYEUR A JET ET BROYEUR A JET ASSOCIE

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Application

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Priority

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Abstract (en)

[origin: WO2008046403A1] The invention relates to a method for producing very fine particles by means of a jet mill (1) comprising an integrated dynamic air separator (7). The rotational speed of a separator rotor (8) of the wind separator (7) and the inner amplification ratio V (= Di/DF) are selected, adjusted or controlled in such a way that the peripheral speed of the operating means (B) reaches up to 0.8 times the speed of sound of the operating medium on an immersion tube, that is associated with the separator wheel (8), or outlet connections (20). The invention also relates to a jet mill (1) comprising an integrated dynamic air separator (7) for producing very fine particles. The rotational speed of the separator rotor (8) of the air separator (7) and the inner amplification ratio V (= Di/DF) can be selected, adjusted or controlled in such a manner that the peripheral speed of the operating means (B) reaches up to 0.8 times the speed of sound of the operating means (B) on an immersion tube, that is associated with the separator wheel (8), or outlet connections (20). According to the invention, a dynamic air separator (7) having a separator wheel (8) is also provided. A source (tank 18a) for operating means (b) that has a higher speed of sound than air (343 m/s) is provided. Finally, the invention also relates to an operating method for an air separator (7) comprising a separator rotor or separator wheel (8). A fluid, in particular gas or vapour, is used as an operating agent (B), said fluid having a higher and in particular essentially higher speed of sound than air (343 m/s).

Abstract (de)

Die vorliegende Erfindung betrifft ein Verfahren zur Erzeugung feinster Partikel mittels einer Strahlmühle (1), wobei als Betriebsmittel (B) ein Fluid, insbesondere Gase oder Dämpfe, verwendet wird, das eine höhere Schallgeschwindigkeit als Luft (343 m/s) aufweist. Ferner schafft die Erfindung eine Strahlmühle (1) zur Erzeugung feinster Partikel, wobei eine Quelle für ein Betriebsmittel (B) enthalten oder zugeordnet ist, das eine höhere Schallgeschwindigkeit als Luft (343 m/s) aufweist.

IPC 8 full level

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CPC (source: EP US)

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Citation (applicant)

- DE 19824062 A1 19991202 - NIED ROLAND [DE]
- EP 0472930 B1 19961016 - NIED ROLAND [DE]
- EP 0472930 B1 19961016 - NIED ROLAND [DE]
- IIER R. K.: "The chemistry of Silica", 1979, pages: 462

Citation (search report)

- [XY] EP 1080786 A1 20010307 - NIED ROLAND [DE]
- [YD] DE 19824062 A1 19991202 - NIED ROLAND [DE]
- [YD] EP 0472930 A2 19920304 - NIED ROLAND [DE]

Cited by

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