

Title (en)  
Injector and its application for spraying catalyst beds

Title (de)  
Injektor und dessen Verwendung zum Besprühen von Katalysatorbetten

Title (fr)  
Injecteur et son application à l'aspersion des lits de catalyseur

Publication  
**EP 0903184 A3 20001115 (DE)**

Application  
**EP 98117750 A 19980918**

Priority  
DE 19741752 A 19970922

Abstract (en)  
[origin: EP0903184A2] A jet injector finely distributes solid or liquid particles over a large area e.g. the use of silver with promoter as a catalytic material in the manufacture of formaldehyde. The injector has two or more single injectors secured to a base (5, 7) and a double mantled pipe (1, 2). The base (5, 7) is joined to and sealed with the double mantled pipe (1, 2) and has link apertures (70) between the inner space within the pipe (1) and the injector (8, 9, 10, 11) inner guide (11). It also has link passages (52) linking the zone between the double mantle pipe inner pipe (1) and the outer pipe (2), and an outer guide (8, 9) surrounding the inner guide (11). The base (5, 7) and individual injectors (8, 9, 10, 11) produce a mixture of carrier gas and aerosol charge of droplets or solids passing between the inner (1) and outer (2) pipes (1), and a uniform radial expansion of the mixture.

IPC 1-7  
**B05B 7/06**; **B05B 7/08**; **B05B 7/14**

IPC 8 full level  
**B01J 23/50** (2006.01); **B05B 7/06** (2006.01); **B05B 7/08** (2006.01); **B05B 7/14** (2006.01)

CPC (source: EP US)  
**B05B 7/066** (2013.01 - EP US); **B05B 7/0892** (2013.01 - EP US); **B05B 7/1486** (2013.01 - EP US)

Citation (search report)  
• [XA] US 5271562 A 19931221 - MYERS ROBERT B [US], et al  
• [A] US 4518120 A 19850521 - JOHNSON GREGORY L [US]  
• [A] FR 1460927 A 19661210 - COMM MATERIEL ET D OUTIL S SOC  
• [A] FR 2641365 A1 19900706 - PILLARD CHAUFFAGE [FR]

Cited by  
CN107088485A; US7766251B2; US7547002B2; US8074895B2

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**EP 98117750 A 19980918**; CN 98119545 A 19980922; DE 19741752 A 19970922; DE 59809268 T 19980918; ES 98117750 T 19980918; JP 26807898 A 19980922; US 15761798 A 19980921