

Title (en)

BURNER MANIFOLD APPARATUS FOR USE IN A CHEMICAL VAPOR DEPOSITION PROCESS

Title (de)

VERTEILERVORRICHTUNG FÜR BRENNER ZUR VERWENDUNG IN EINEM GASPHASENABSCHEIDUNGSVERFAHREN

Title (fr)

COLLECTEUR POUR BRULEUR UTILISABLE DANS LE CADRE D'UN PROCESSUS DE DEPOT CHIMIQUE EN PHASE VAPEUR

Publication

**EP 1144913 A4 20041215 (EN)**

Application

**EP 99965064 A 19991201**

Priority

- US 9928305 W 19991201
- US 11276798 P 19981217

Abstract (en)

[origin: WO0036340A1] A burner manifold apparatus (10) for delivering reactants to a combustion site of a chemical vapor deposition process includes fluid inlets (32a, 32b), fluid outlets (49), and a plurality of fluid passages (50) extending therebetween. The fluid passages (50) converge toward each other from the fluid inlets to the fluid outlets. One embodiment includes a manifold base (12), a pressure plate (14), and a manifold burner mount (16) for mounting thereto a micromachined burner (58). The fluid passages (50) internal to the manifold base are configured to distribute symmetrically the fluid to the manifold burner mount. The fluid is then channeled through fluid passages in the manifold burner mount. The fluid passages converge, yet remain fluidly isolated from each other, and the fluid passages create a linear array for producing linear streams of fluid. Alternatively, the burner manifold apparatus may include a plurality of manifold elements in a stacked arrangement. In this alternative embodiment, the manifold elements are configured to produce a linear array of fluid passages at the top of the stack, increasing the number of fluid passages at each level of the stack closer to the top. As yet a further alternative, the burner manifold may be produced by extruding a particulate composite through a die to produce a manifold having fluid passages therein. This extruded manifold generally has a tapered section to which a burner may be mounted.

IPC 1-7

**F23D 14/14**; **C03B 37/014**; **C23C 16/453**

IPC 8 full level

**F23D 14/14** (2006.01); **C03B 19/06** (2006.01); **C03B 19/14** (2006.01); **C03B 23/047** (2006.01); **C03B 37/014** (2006.01); **C23C 16/453** (2006.01); **C23C 16/455** (2006.01); **F23D 14/22** (2006.01); **F23D 14/52** (2006.01); **F23D 14/56** (2006.01); **F23D 14/58** (2006.01)

CPC (source: EP KR)

**C03B 19/06** (2013.01 - EP); **C03B 19/1423** (2013.01 - EP); **C03B 23/047** (2013.01 - EP); **C03B 37/0142** (2013.01 - EP); **C23C 16/453** (2013.01 - EP); **F23D 14/22** (2013.01 - EP); **F23D 14/46** (2013.01 - KR); **F23D 14/52** (2013.01 - EP); **F23D 14/583** (2013.01 - EP); **C03B 2207/02** (2013.01 - EP); **C03B 2207/04** (2013.01 - EP); **C03B 2207/42** (2013.01 - EP); **F23D 2203/101** (2013.01 - EP); **F23D 2203/104** (2013.01 - EP); **F23D 2212/10** (2013.01 - EP); **F23D 2213/00** (2013.01 - EP); **F23D 2900/14001** (2013.01 - EP)

Citation (search report)

- [X] WO 9801705 A1 19980115 - SPRAYCHIP SYSTEMS CORP [US]
- [X] US 4136828 A 19790130 - ANDERSON JOSEPH W, et al
- [X] FR 2333628 A1 19770701 - VERGNON PIERRE [FR]
- See references of WO 0036340A1

Designated contracting state (EPC)

DE FI FR GB IT NL

DOCDB simple family (publication)

**WO 0036340 A1 20000622**; AU 3106100 A 20000703; BR 9916203 A 20010904; CA 2355941 A1 20000622; CN 1330753 A 20020109; EP 1144913 A1 20011017; EP 1144913 A4 20041215; ID 29926 A 20011025; JP 2002532632 A 20021002; KR 20010086107 A 20010907; TW 418303 B 20010111

DOCDB simple family (application)

**US 9928305 W 19991201**; AU 3106100 A 19991201; BR 9916203 A 19991201; CA 2355941 A 19991201; CN 99814570 A 19991201; EP 99965064 A 19991201; ID 20011288 A 19991201; JP 2000588546 A 19991201; KR 20017007404 A 20010614; TW 88122682 A 19991217