

Title (en)

APPARATUS AND METHOD FOR POINT-OF-USE TREATMENT OF EFFLUENT GAS STREAMS

Title (de)

VORRICHTUNG UND VERFAHREN ZUR VOR-ORT-BEHANDLUNG VON ABGASSTRÖMEN

Title (fr)

APPAREIL ET PROCEDE PERMETTANT DE REDUIRE DES COURANTS DE GAZ D'EFFLUENTS AU NIVEAU DU POINT D'UTILISATION

Publication

**EP 1146958 A4 20060621 (EN)**

Application

**EP 99966320 A 19991215**

Priority

- US 9929910 W 19991215
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Abstract (en)

[origin: WO0035573A1] A system for abating undesired component(s) from a gas stream containing the same, such as halocompounds, acid gases, silanes, ammonia, etc., by scrubbing of the effluent gas stream with an aqueous scrubbing medium. Halocompounds, such as fluorine, fluorides, perfluorocarbons, and chlorofluorocarbons, may be scrubbed in the presence of a reducing agent, e.g., sodium thiosulfate, ammonium hydroxide, or potassium iodide. In one embodiment, the scrubbing system includes a first acid gas scrubbing unit operated in cocurrent gas/liquid flow (110), and a second "polishing" unit operated in countercurrent gas/liquid flow (120), to achieve high removal efficiency with low consumption of water. The scrubbing system may utilize removable insert beds of packing material, packaged in a foraminous containment structure. The abatement system of the invention has particular utility in the treatment of semiconductor manufacturing process effluents.

IPC 1-7

**B01J 8/02**; **B01J 8/04**; **B01J 19/30**; **B01D 19/02**; **B01D 19/04**; **B01D 53/14**; **B01D 53/34**; **B01D 53/40**; **B01D 53/68**; **B01D 53/70**; **B01D 53/78**

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Citation (search report)

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- [XY] US 5405590 A 19950411 - MACEDO PEDRO B D [US], et al
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- [A] PATENT ABSTRACTS OF JAPAN vol. 009, no. 301 (C - 316) 28 November 1985 (1985-11-28)
- See references of WO 0035573A1

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DOCDB simple family (application)

**US 9929910 W 19991215**; AU 2188900 A 19991215; CN 200410071672 A 19991215; CN 99816115 A 19991215; EP 99966320 A 19991215; JP 2000587880 A 19991215; KR 20017007495 A 20010615; TW 88122031 A 19991215