

Title (en)
ATOMIZING NOZZLES, SO₂ REACTORS AND FLUE GAS CLEANING PLANTS

Publication
EP 0079081 A3 19840530 (EN)

Application
EP 82110320 A 19821109

Priority
SE 8106637 A 19811109

Abstract (en)
[origin: EP0079081A2] A nozzle for the atomization of a liquid containing a suspension of solid particles with the aid of an atomizing gas, e.g. for use in plants for the removal of sulfur dioxide from flue gases according to the dry scrubbing method. To avoid clogging and non-uniform liquid distribution, the nozzle (1) consists of a symmetric central body (2) with a cavity (3) into which a central liquid main (4) feeds, between three and ten mist orifices (5) being arranged symmetrically around the central body, consisting of tubular housings (6) whose longitudinal axes (7) form an angle (v) of between 20 and 90 DEG with the longitudinal axis (8) of the central body. Each mist orifice has a circular outlet opening (9) with a diameter of between 1 and 10 mm and with a radially symmetric atomizing zone (11) that is supplied individually with atomizing gas from a tubular gas orifice (12) installed upstream of the outlet opening (9).

IPC 1-7
B05B 1/00; **B05B 1/14**; **B05B 7/04**

IPC 8 full level
B05B 1/00 (2006.01); **B05B 1/14** (2006.01); **B05B 7/04** (2006.01); **B05B 7/08** (2006.01); **F23J 15/00** (2006.01)

CPC (source: EP)
B05B 7/0475 (2013.01); **B05B 7/0892** (2013.01); **F23J 15/003** (2013.01)

Citation (search report)

- [Y] US 2547084 A 19510403 - MAREUSE JAMES E
- [Y] FR 1428682 A 19660218 - ICI LTD
- [A] FR 1239405 A 19600826
- [A] FR 2152815 A1 19730427 - HITACHI LTD
- [A] US 3110444 A 19631112 - EAKINS WILLIAM S

Cited by
US4963330A; US5641124A; EP0185630A1; US4690333A; CN112543672A; US2021308701A1; US11110394B2; WO2020025381A1; EP0198810B1

Designated contracting state (EPC)
AT BE CH DE FR GB IT LI NL SE

DOCDB simple family (publication)
EP 0079081 A2 19830518; **EP 0079081 A3 19840530**; **EP 0079081 B1 19870930**; AT E29974 T1 19871015; CA 1207821 A 19860715; DE 3277403 D1 19871105; DE 79081 T1 19841108; DK 157332 B 19891218; DK 157332 C 19900514; DK 496482 A 19830510; FI 73149 B 19870529; FI 73149 C 19870910; FI 823845 A0 19821109; NO 158567 B 19880627; NO 158567 C 19881005; NO 823705 L 19830510; SE 449057 B 19870406; SE 8106637 L 19830510

DOCDB simple family (application)
EP 82110320 A 19821109; AT 82110320 T 19821109; CA 415112 A 19821108; DE 3277403 T 19821109; DE 82110320 T 19821109; DK 496482 A 19821108; FI 823845 A 19821109; NO 823705 A 19821108; SE 8106637 A 19811109