

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
10 August 2006 (10.08.2006)

PCT

(10) International Publication Number
WO 2006/082357 A1

(51) International Patent Classification:
F04F 5/00 (2006.01) **F04C 19/00** (2006.01)

(21) International Application Number:
PCT/GB2006/000106

(22) International Filing Date: 12 January 2006 (12.01.2006)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0502495.5 7 February 2005 (07.02.2005) GB

(71) Applicant (for all designated States except US): **THE BOC GROUP PLC** [GB/GB]; Chertsey Road, Windlesham, Surrey GU20 6HJ (GB).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **HUNTLEY, Graeme** [GB/GB]; BOC Edwards, Kenn Business Park, Kenn Road, Clevedon, North Somerset BS21 6TH (GB).

(74) Agent: **BOOTH, Andrew, Steven**; The Boc Group Plc, Chertsey Road, Windlesham, Surrey GU20 6HJ (GB).

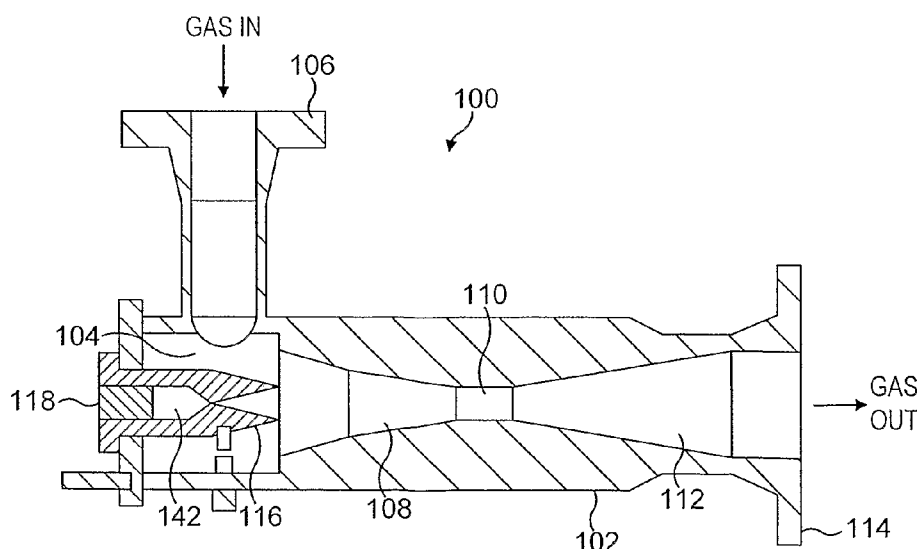
(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: EJECTOR PUMP



(57) Abstract: An ejector pump (100) comprises a chamber having a gas mixing portion (108) and a diffuser portion (112). An inlet (106) conveys a gas stream into the gas mixing portion, and an outlet (114) conveys the gas stream from the diffuser portion. To provide a motive fluid for the pump, a stream of plasma is ejected through a nozzle (116) into the gas mixing portion (108) of the chamber. Reactive species contained within the plasma stream react with a component of the gas stream to provide simultaneous pumping and abatement of the gas stream.

WO 2006/082357 A1