



(51) International Patent Classification:

F23G 7/06 (2006.01) *F23N 1/02* (2006.01)
F23D 14/14 (2006.01) *F23N 5/02* (2006.01)

(21) International Application Number:

PCT/GB2015/053287

(22) International Filing Date:

2 November 2015 (02.11.2015)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

1421131.2 28 November 2014 (28.11.2014) GB

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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY,

BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Published:

- with international search report (Art. 21(3))
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

(54) Title: RADIANT BURNER FOR NOXIOUS GAS INCINERATION

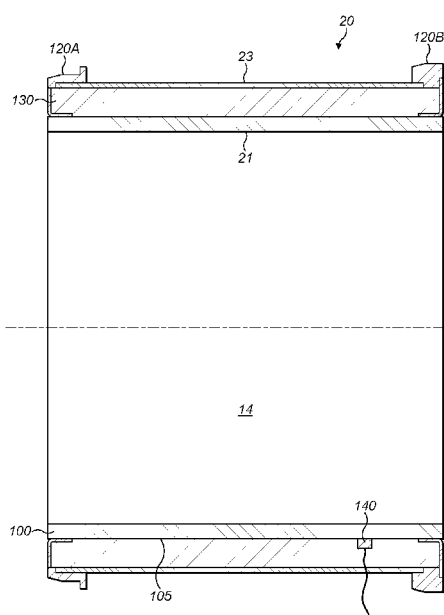


FIG. 2

(57) Abstract: A radiant burner (8) and method are disclosed. The radiant burner (8) is for treating an effluent gas stream supplied through nozzles (12) from a manufacturing process tool, the radiant burner (8) comprises: a sintered metal fibre sleeve (20) through which combustion materials pass for combustion proximate to an inner combustion surface of the sintered metal fibre sleeve (part of 20); and an insulating sleeve (part of 20) made of sintered ceramic fibres and surrounding the sintered metal fibre sleeve and through which the combustion materials pass. In this way, a radiant burner (8) is provided which does not crack due to rapid cycling caused by frequent idle steps during which the burner is extinguished. Also, by providing an insulating sleeve, the temperature within the radiant burner (8) and the temperature of an outer surface of the radiant burner (8) remain comparable with existing ceramic burners. This enables the radiant burner (8) to be substituted in place of existing ceramic burners as a line-replaceable unit which does not suffer from cracking during such frequent and short-duration periods of process tool inactivity.