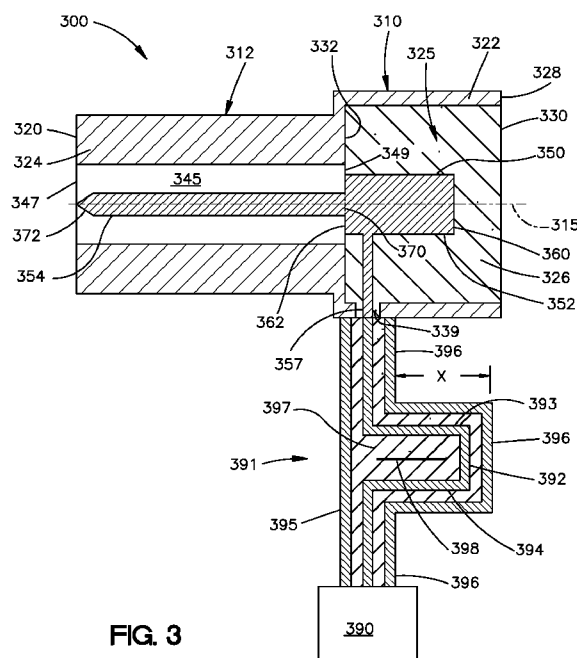




- (51) International Patent Classification:
H01P 7/06 (2006.01)
- (21) International Application Number:
PCT/US2015/031451
- (22) International Filing Date:
18 May 2015 (18.05.2015)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
61/994,332 16 May 2014 (16.05.2014) US
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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,

[Continued on next page]

(54) Title: COMBUSTION ENVIRONMENT DIAGNOSTICS



(57) Abstract: An apparatus comprises a coaxial cavity resonator; a radio frequency power source coupled to the coaxial cavity resonator; a direct current power source coupled to the coaxial cavity resonator; a combustion process feedback module configured to sense a condition in a combustion environment by measuring a characteristic of the coaxial cavity resonator; and a controller configured to modulate operation of the coaxial cavity resonator based at least in part on combustion process feedback information from the combustion process feedback module.

WO 2015/176073 A1



SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, **Published:**

GW, KM, ML, MR, NE, SN, TD, TG).

— *with international search report (Art. 21(3))*