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| 83-827915/48 RUHRCHEMIE AG | H09 | RUHR 22.05.82 *DE 3219-316-A | H(9-C) 007 |
| 22.05.82-DE-219316 (24.11.83) C10j-03/50 Aq. coal suspension oxidised to synthesis gas in burner system - giving complete reaction and continuously adjustable output | | | sec; (ii) 1-25 (esp. 5-15) m/sec. Each nozzle may have a conical taper, so that the cone angle of stream (ii) is 5-30° greater than that of stream (i), and the cone angle of stream (iii) can be 5-50° greater than that of stream (ii). |
| C83-115562 | A process for the prodn. of synthesis gas by partial oxidn. (at 1000-1600°C and e. g. 10-200 bar) of an aq. coal suspension employs a burner in which three concentric tubes supply the reaction zone with: (i) a part (pref. 1-20%) of the required O ₂ ; (ii) the coal/water suspension; and (iii) the remaining O ₂ . The rates of streams (ii) and (iii) are pref. continuously and separately adjustable during operation by adjusting the nozzle apertures. | | <u>EMBODIMENT</u> The concentric tubes carrying streams (i), (ii) and (iii) are fitted with tapered nozzles (9, 8 and 7), made of heat- and abrasion-resistant material; the outer two can be vertically displaced to vary the apertures for streams (ii) and (iii). Steam or water coolant passes in a coil (11) round the outer tube and in a channel (14) in its nozzle (7). (16pp1492RHDwgNo2/2). |
| <u>ADVANTAGES</u> Coal conversion is increased. Start-up of the gasification plant is facilitated by using a hydrocarbon fuel as stream (ii) at first and then replacing it with the coal suspension. | | | |
| <u>DETAILS</u> Stream (i) may contain synthesis gas. The pref. stream velocities are: (i) and (iii) each 50-300 (esp. 80-200) m/- | | | + DE3219316-A |

