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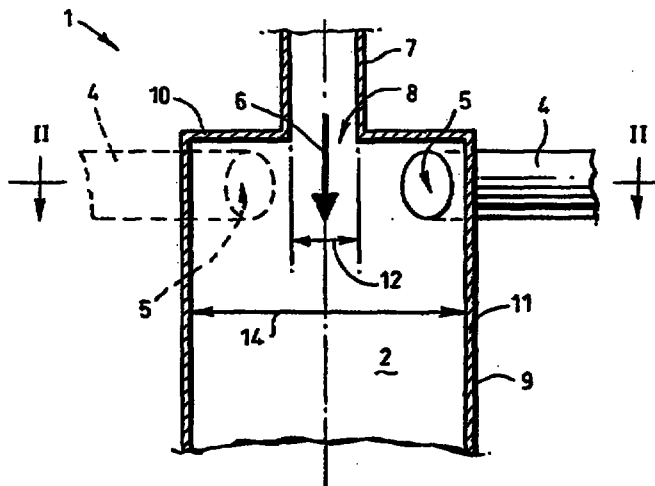
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(54) Title: MIXING DEVICE



(57) Abstract: The invention relates to a mixing device (1) for mixing a gaseous stream comprising a fuel and a gaseous oxidant, which mixing device (1) comprises a cylindrical mixing chamber (2), means (4,5) for injecting a gaseous stream comprising the fuel tangentially along the inner surface of the wall of the mixing chamber (2), and means (7,8) for injecting a stream (6) of the oxidant axially along the central longitudinal axis of the mixing chamber (2), wherein the diameter (14) of the mixing chamber (2) and the dimensions and location of the means (4,5,7,8) for injecting the fuel and the oxidant are such that, during normal operation, the tangentially injected stream comprising the fuel forms a wall jet around the axially injected stream (6) of the oxidant without impinging upon the axially injected stream (6). The invention further relates to a reactor for the partial oxidation of a hydrocarbonaceous fuel comprising the mixing device and to a process for the catalytic partial oxidation of a hydrocarbonaceous fuel using the mixing device.

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