Title (en)

MULTI-ZONE TUBULAR REACTOR FOR CARRYING OUT EXOTHERMIC GAS-PHASE REACTIONS

Title (de)

MEHRZONEN-MANTELROHRREAKTOR ZUR DURCHFÜHRUNG EXOTHERMER GASPHASENREAKTIONEN

Title (fr)

REACTEUR TUBULAIRE A ENVELOPPE COMPRENANT PLUSIEURS ZONES POUR L'EXECUTION DE REACTIONS EXOTHERMIQUES EN PHASE GAZEUSE

Publication

EP 1590076 A1 20051102 (DE)

Application

EP 03701548 A 20030131

Priority

EP 0300978 W 20030131

Abstract (en)

[origin: WO2004067165A1] The invention relates to a multi-zone tubular reactor (2; 60; 90; 130) for carrying out exothermic gas-phase reactions. Said reactor comprises at least one reaction zone (I) that operates with evaporation cooling, at least one reaction zone (II) that operates with circulation cooling and optionally additional zones (III, IV). The reactor is characterised in that a reaction zone (I) that operates with evaporation cooling constitutes the first reaction zone and that an additional reaction zone (II) that operates with evaporation cooling or with circulation cooling adjoins said first zone. This permits intensive cooling at the start of the reaction, where the latter is at its most violent stage, at a temperature that can be precisely controlled and is constant over the entire reactor cross-section, whilst achieving a subsequent cooling of the reaction gas in a post-reaction zone that operates with circulation cooling, by means of a global counter-flow of the heat-transfer medium.

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IPC 8 full level

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Citation (search report)

See references of WO 2004067165A1

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