

Abstract

A reactor (1) for carrying out a reaction between two fluid starting materials (2, 3) over a catalyst bed (4) with premixing of the fluid starting materials (2, 3) before introduction into the catalyst bed within a delay time of less than 150 ms in a mixing-in device (5), wherein the mixing-in device (5) is made up of the following elements which are arranged essentially transverse to the inflow direction of the first fluid starting material stream (2):

- two or three rows arranged behind one another of tubes (6) which have turbulence generators on the outside and constrict the flow cross section for the first fluid starting material stream (2) to from 1/2 to 1/10, with the second fluid starting material stream (3) being passed through the interiors of the tubes (6) and injected via openings (7) in the tubes (6) into the first fluid starting material stream (2), and
- a perforated plate (10) upstream of the tubes (6) and
- a perforated plate (11) downstream of the tubes (6),

is proposed.

(Figure 1A)