

Title (en)

TUBE FURNACE AND CHEMICAL CONVERSION METHOD

Title (de)

ROHROFEN UND VERFAHREN ZUR CHEMISCHEN UMSETZUNG

Title (fr)

FOUR À TUBE ET PROCÉDÉ SERVANT À LA TRANSFORMATION CHIMIQUE

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Application

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Abstract (en)

[origin: WO2016189138A1] The invention relates to a tube furnace (1) comprising a housing (10) which contains a heat exchanger that has a wall, said wall separating a first volume from a second volume. One volume (21, 22) is designed to receive at least one reactant, and the other volume (22, 21) is designed to receive a heat transfer fluid, said heat transfer fluid containing or consisting of a sphere fluid. The tube furnace further contains a recuperator (3) in which the sphere fluid can be brought into contact with a gaseous heat transfer medium. The invention further relates to a method for chemically converting reactants in a second volume (22), wherein heat is added to or discharged from the second volume (22) by means of at least one heat transfer fluid flowing through a heat exchanger, and the heat transfer fluid contains or consists of a sphere fluid and an additional gaseous heat transfer medium.

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