

Title (en)

A STACK ROW STRUCTURE AND METHOD OF HIGH TEMPERATURE FUEL CELL

Title (de)

STAPELREIHENSTRUKTUR UND VERFAHREN FÜR HOCHTEMPERATUR-BRENNSTOFFZELLE

Title (fr)

STRUCTURE À EMPILEMENTS DISPOSÉS EN RANGÉES ET PROCÉDÉ POUR PILE À COMBUSTIBLE À HAUTE TEMPÉRATURE

Publication

EP 3452639 A1 20190313 (EN)

Application

EP 16722263 A 20160502

Priority

FI 2016050280 W 20160502

Abstract (en)

[origin: WO2017191353A1] An object of the invention is a stack arrangement of high temperature fuel cell system or electrolysis cell system, each cell in the cell system comprising an anode side (100), a cathode side (102), and an electrolyte (104) between the anode side and the cathode side, the cell system comprising the cells in cell stacks (103). The arrangement comprises the stacks (103) arranged in row arrangement, wherein the stacks are arranged side by side at least in two rows, and the arrangement comprises air feed-in ducting (120) for feeding air to the stacks (103), the ducting having air inlet ends (130), which are conveyed to a sealed air feed space (132), which is formed between the stack (103) rows having at least two sides of the air feed space enclosed by the stacks themselves. The arrangement comprises a fuel feed-in common rail (133), a fuel feed-in ducting (122) and individual feed-in channeling (131) for feeding fuel to the stacks (103), and at least one radiative heat transfer compensation element (134) along at least one of the fuel feed-in common rail (133), the fuel feed-in ducting (122), the individual feed-in channeling (131) and the air feed-in ducting (120), means (135) for performing flow and temperature balanced air feed-in flows for the stacks (103), and means (137) for performing flow balanced fuel flows in the cell system.

IPC 8 full level

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