

Title (en)

PURGE MANAGEMENT IN FUEL CELL POWER PLANTS

Title (de)

PURGE-STEUERUNGSSYSTEM FÜR EINE BRENNSTOFFZELLENKRAFTANLAGE

Title (fr)

GESTION DE PURGE DANS UNE PILE À COMBUSTIBLE POUR CENTRALE ÉLECTRIQUE

Publication

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Application

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Abstract (en)

[origin: WO2006061194A1] The present invention provides a fuel cell power plant 120 comprising a fuel cell stack 180 configured to be fed with a regulated supply of pure or quasi-pure hydrogen 140 through a pressure regulator device 260 and having a recirculation loop 200 that is configured for hydrogen recovery from downstream of the fuel cell stack 180. The recovered hydrogen is fed into the hydrogen feed supply 220. The power plant 120 further comprising a purge device 260 that is located downstream of the fuel cell stack 180, the purge device 260 being under the control of a controller 300 and being configured to purge nitrogen gas from the power plant 120. The controller 160 includes an input configured to receive a signal indicative of an electrical load demanded of the fuel cell power plant and is configured to control the purge device in response to the load signal. The controller 300 is thus able to regulate the level of nitrogen at the entrance to, and/or exit of, an anode of the fuel cell stack and thereby substantially continuously maintain a concentration of nitrogen at said anode which is determined as a function of the electrical load demanded of said fuel cell power plant.

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