

Title (en)  
SENSOR DEVICE FOR A FUEL CELL SYSTEM

Title (de)  
SENSORVORRICHTUNG FÜR EIN BRENNSTOFFZELLENSYSTEM

Title (fr)  
DISPOSITIF DE DÉTECTION POUR SYSTÈME D'ÉLÉMENTS À COMBUSTIBLE

Publication  
**EP 4078706 A1 20221026 (DE)**

Application  
**EP 20829191 A 20201218**

Priority  
• AT 511142019 A 20191218  
• AT 2020060482 W 20201218

Abstract (en)  
[origin: WO2021119714A1] The invention relates to a sensor device (10) for a fuel cell system (100) for determining a purging parameter (SP) for controlling a purging process of the fuel cell system (100), comprising a first flow channel (20) for arranging in an anode supply section (122) of an anode section (120) of a fuel cell stack (110) and a second flow channel (130) for arranging in a recirculation section (126) of the anode section (120) of the fuel cell stack (110), which are separated from one another at least in sections by means of a gas-tight membrane (40), wherein the membrane (40) is designed to be permeable for protons and has an electrode section (42, 44) on both sides, as well as comprising a measuring device (50) for determining a concentration difference of the fuel between the first flow channel (20) and the second flow channel (30) as a purging parameter (SP) based on an electrical voltage between the two electrode sections (42, 44).

IPC 8 full level  
**H01M 8/04089** (2016.01); **H01M 8/04223** (2016.01); **H01M 8/0444** (2016.01)

CPC (source: AT EP US)  
**G01N 27/407** (2013.01 - US); **H01M 8/04097** (2013.01 - AT EP); **H01M 8/04231** (2013.01 - AT EP US); **H01M 8/04447** (2013.01 - EP US); **H01M 8/04462** (2013.01 - AT EP); **H01M 8/04559** (2013.01 - US); **H01M 8/04567** (2013.01 - AT); **H01M 8/04753** (2013.01 - US); **H01M 8/2465** (2013.01 - US); **H01M 8/04753** (2013.01 - EP); **H01M 8/04761** (2013.01 - EP); **Y02E 60/50** (2013.01 - EP)

Citation (search report)  
See references of WO 2021119714A1

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

Designated validation state (EPC)  
KH MA MD TN

DOCDB simple family (publication)  
**WO 2021119714 A1 20210624**; AT 523373 A1 20210715; AT 523373 B1 20211015; CN 114762155 A 20220715; EP 4078706 A1 20221026; US 2023022392 A1 20230126

DOCDB simple family (application)  
**AT 2020060482 W 20201218**; AT 511142019 A 20191218; CN 202080084391 A 20201218; EP 20829191 A 20201218; US 202017785919 A 20201218