

Title (en)  
STAND-ALONE WATER DETECTION DEVICE THAT INCLUDES A HYDROGEN SOURCE

Title (de)  
SELBSTSTÄNDIGE WASSERDETEKTIONSVORRICHTUNG MIT EINER WASSERSTOFFQUELLE

Title (fr)  
DISPOSITIF DE DETECTION D'EAU AUTONOME COMPRENANT UNE SOURCE D'HYDROGENE

Publication  
**EP 2529209 A1 20121205 (FR)**

Application  
**EP 11701078 A 20110120**

Priority  
• FR 1000284 A 20100126  
• EP 2011050752 W 20110120

Abstract (en)  
[origin: WO2011092105A1] The invention relates to a water detection device comprising at least one fuel cell having a first electrode (2), an electrolyte layer (3), a second electrode (4) and an electrical measurement device (5), characterized in that the first electrode of the cell is in contact with a first face of a substrate (1) made of porous silicon having Si-H bonds, so as to release a stream of hydrogen in the presence of water. Advantageously, the porous silicon substrate is incorporated in a water-permeable casing (6), the fuel cell being incorporated in a second casing (8), said second casing being impermeable to water but permeable to oxygen.

IPC 8 full level  
**G01N 27/416** (2006.01); **H01M 8/04** (2006.01); **H01M 8/10** (2006.01)

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Citation (search report)  
See references of WO 2011092105A1

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