

Title (en)

Hydrogen sensor and use thereof

Title (de)

Wasserstoffsensor und dessen Verwendung

Title (fr)

Capteur d'hydrogène et son utilisation

Publication

EP 1615021 A1 20060111 (DE)

Application

EP 05090208 A 20050707

Priority

- DE 102004033597 A 20040707
- US 65146604 P 20040826

Abstract (en)

An insulator layer (3) attaches to a semiconductor substrate (2). A fluoride ion conductor layer is applied to the insulator layer and a palladium layer/electrode (5) to the fluoride ion conductor layer (4). A second electrode (6) fits on the rear side of the semiconductor substrate. Independent claims are included for: (A) a hydrogen gas alarm with a hydrogen sensor; (B) and for a hydrogen gas detector with a hydrogen sensor; (C) and for a method for determining hydrogen gas concentration.

IPC 8 full level

G01N 27/22 (2006.01); **G01N 27/414** (2006.01); **G08B 17/117** (2006.01)

CPC (source: EP)

G08B 17/117 (2013.01)

Citation (applicant)

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- US 5856780 A 19990105 - MCGEEHIN PETER [GB]
- US 6265222 B1 20010724 - DIMEO JR FRANK [US], et al
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- APPL. PHYS. LETT., vol. 26, 1975, pages 55 - 57
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Citation (search report)

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- [DY] US 5856780 A 19990105 - MCGEEHIN PETER [GB]
- [A] US 4795968 A 19890103 - MADOU MARC [US], et al
- [A] US 4836012 A 19890606 - DOTY MITCHELL E [US], et al
- [PA] MORITZ W ET AL: "All solid state room temperature hydrogen sensor", MEET. ABSTR.; MEETING ABSTRACTS; 2004 JOINT INTERNATIONAL MEETING - 206TH MEETING OF THE ELECTROCHEMICAL SOCIETY/2004 FALL MEETING OF THE ELECTROCHEMICAL SOCIETY OF JAPAN, MA 2004-02 2004, 2004, pages 2564, XP009055091
- [A] BARTHOLOMAUS L ET AL: "Semiconductor sensors for fluorine detection - optimization for low and high concentrations", SENSORS AND ACTUATORS B, ELSEVIER SEQUOIA S.A., LAUSANNE, CH, vol. 65, no. 1-3, 30 June 2000 (2000-06-30), pages 270 - 272, XP004208656, ISSN: 0925-4005
- [A] PATENT ABSTRACTS OF JAPAN vol. 012, no. 125 (P - 691) 19 April 1988 (1988-04-19)

Designated contracting state (EPC)

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