

Title (en)

PHOTOACOUSTIC CELL WITH IMPROVED DETECTION ACCURACY AND GAS ANALYSER COMPRISING SUCH A CELL

Title (de)

PHOTOAKUSTISCHE ZELLE MIT VERBESSERTER NACHWEISGENAUIGKEIT UND GASANALYSATOR MIT SOLCH EINER ZELLE

Title (fr)

CELLULE PHOTO-ACOUSTIQUE A PRECISION DE DETECTION AMELIOREE ET ANALYSEUR DE GAZ COMPRENANT UNE TELLE CELLULE

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Application

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Abstract (en)

[origin: WO2014122135A1] The present invention concerns a photo-acoustic cell (1), comprising: an acoustic resonator (2), said resonator comprising a resonator recess (3) in the form of a tube extending in a longitudinal detection (4); an input mirror (8) and an end mirror (10) aligned with the resonator (2) along an optical axis (5) of the cell parallel to the longitudinal direction (4); between the input mirror and the resonator, an input acoustic buffer (13); and between the end mirror and the resonator, an end acoustic buffer (14). According to a first aspect of the cell according to the invention, the lengths (63, 64) of the input and end acoustic buffers, measured in the longitudinal direction, are preferably asymmetrical. According to a second aspect of the cell according to the invention, the input mirror and the end mirror are preferably arranged to reflect a light beam (15) entering the cell through the input window (9) in the longitudinal direction, being centred on the optical axis, such that after each reflection on each of these mirrors, the reflected light beam remains centred on the optical axis (5). The invention also concerns a gas analyser comprising a cell according to the invention.

IPC 8 full level

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Citation (search report)

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