

Title (en)
METHOD OF MEASURING THE CONCENTRATION OF A GAS IN A GAS MIXTURE AND ELECTROCHEMICAL SENSOR FOR DETERMINING THE GAS CONCENTRATION

Title (de)
VERFAHREN ZUR MESSUNG DER KONZENTRATION EINES GASES IN EINEM GASGEMISCH SOWIE ELEKTROCHEMISCHER SENSOR ZUR BESTIMMUNG DER GASKONZENTRATION

Title (fr)
PROCEDE DE MESURE DE LA CONCENTRATION D'UN GAZ DANS UN MELANGE GAZEUX ET CAPTEUR ELECTROCHIMIQUE POUR LA DETERMINATION DE CETTE CONCENTRATION

Publication
EP 0797770 A1 19971001 (DE)

Application
EP 95942123 A 19951212

Priority
• DE 4445033 A 19941216
• EP 9504899 W 19951212

Abstract (en)
[origin: DE4445033A1] The invention concerns a method and an electrochemical sensor for measuring the concentration of at least one predetermined gas in a gas mixture by means of an electrolyte on which a first and a second electrode are applied and which, together with the electrodes connected to a voltage source, is exposed to the gas mixture. The voltage source generates an electric current which flows through the electrodes and electrolyte, is dependent on the ion concentration, and is measured as a signal of the gas concentration. In order to be able to dispense with reference measurements and diffusion holes or diffusion layers, gaseous molecules are adsorbed in the region of the first catalytically active electrode and of the electrolyte and are then split into atoms and subsequently either converted into ions or participate in a chemical reaction. The ion concentrations produced in both cases depend on the catalytic effect of at least one electrode and the gas concentration to be measured.

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IPC 8 full level
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