

Title (en)

CERAMIC SENSOR ELEMENT FOR AN EXHAUST GAS SENSOR, AND METHOD FOR PRODUCING SAME

Title (de)

KERAMISCHES SENSORELEMENT FÜR EINEN ABGASSENSOR UND VERFAHREN ZU SEINER HERSTELLUNG

Title (fr)

ÉLÉMENT DE DÉTECTION EN CÉRAMIQUE POUR UN CAPTEUR DE GAZ D'ÉCHAPPEMENT ET SON PROCÉDÉ DE PRODUCTION

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Application

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Abstract (en)

[origin: WO2021239401A1] The invention relates to a ceramic sensor element (10) for an exhaust gas sensor. The ceramic sensor element (10) has a layered design and is elongated, and the ceramic sensor element (10) has an end region facing the exhaust gas in the longitudinal direction, wherein the ceramic sensor element (10) has a cavity (30) extending in the layer direction in the interior, and the ceramic sensor element (10) has an electrochemical pump cell (38), which has a first electrode (16) that is exposed to the exhaust gas (100), a second electrode (18) that is arranged in the cavity (30), and a solid electrolyte (14), said solid electrolyte connecting the first electrode (16) to the second electrode (18). The ceramic sensor element (10) has a gas entry bore (64) in the end region facing the exhaust gas, said gas entry bore extending into the ceramic sensor element (10) perpendicularly to the layer direction and connecting the cavity (30) to the exhaust gas (100), and the ceramic sensor element (10) has a porous thermal shock protection layer (62) in the end region facing away from the exhaust gas, said protection layer covering the gas entry bore (64). The invention is characterized in that the gas entry bore (64) has a greater cross-sectional area towards the thermal shock protection layer (62) than towards the cavity (30).

IPC 8 full level

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