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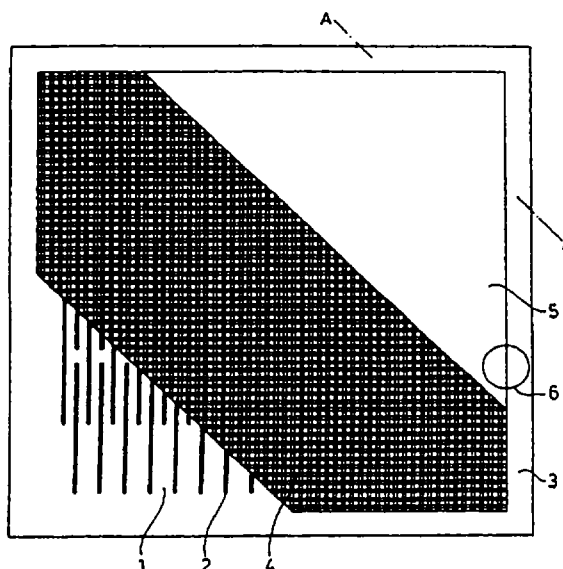
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(54) Title: DIMENSIONALLY STABLE GAS DIFFUSION ELECTRODE

(54) Bezeichnung: DIMENSIONSSTABILE GASDIFFUSIONSELEKTRODE



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(57) Abstract: The invention relates to a dimensionally stable gas diffusion electrode and to a method for producing the same. The inventive electrode comprises at least one electroconducting catalyst substrate for receiving a coating mass that contains a catalyst material, and one electrical connection. The catalyst substrate (4; 11) may be a tissue, a nonwoven, a foam, a sintered metal body or felt from a electroconducting material, an expanded metal plate or a metal plate that is provided with a multitude of openings (2, 8), on which the coating material (5) that contains the catalyst material is applied. The catalyst substrate, if not sufficiently rigid itself, is firmly linked with a gas-permeable, alkali-resistant metal base plate (1; 7), especially produced from nickel or one of its alloys in a mechanical and electroconducting manner.

(57) Zusammenfassung: Es wird eine dimensionsstabile Gasdiffusionselektrode und ein Verfahren zu ihrer Herstellung beschrieben. Die Elektrode besteht wenigstens aus einem elektrisch leitenden Katalysatorträgermaterial zur Aufnahme einer Katalysatormaterial enthaltenden Beschichtungsmasse

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und einem elektrischen Anschluss, wobei das Katalysatorträgermaterial (4;11) ein Gewebe, Vlies, Schaum, Sintermetallkörper oder Filz aus elektrisch leitendem Material, eine Streckmetallplatte oder eine mit einer Vielzahl von Öffnungen (2, 8) versehene Metallplatte ist, auf der die Katalysatormaterial enthaltende Beschichtungsmasse (5) aufgebracht ist, und das, bei nicht ausreichender Eigensteifigkeit, mit einer gasdurchlässigen, laugebeständigen metallischen Grundplatte (1; 7), insbesondere aus Nickel oder seinen Legierungen, mechanisch und elektrisch leitend fest verbunden ist.