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(54) Title: METHOD FOR PRODUCING GAS DIFFUSION ELECTRODES



(54) Bezeichnung: VERFAHREN ZUR HERSTELLUNG VON GASDIFFUSIONSELEKTRODEN

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(57) Abstract: The invention relates to a method for producing gas diffusion electrodes, which are particularly suited for use in electrolysis cells. The gas diffusion electrodes consist of a flat construction produced by rolling a powder mixture containing at least one catalyst or one catalyst mixture and one binder. According to a first preferred embodiment of the inventive method, the clamping force of the rollers is held constant during the rolling process of the powder mixture, whereby the clamping force is located between 0.2 kN/cm and 15 kN/cm. In a second preferred embodiment of the invention, the roller diameter is no larger than 15 cm. In a third preferred embodiment, the flat construction is connected to a catalyst support in an electrically conductive manner by rolling that involves a linear force ranging from 0.1 kN/cm to 2 kN/cm.

(57) Zusammenfassung: Ein Verfahren zur Herstellung von Gasdiffusionselektroden, die insbesondere für den Einsatz in Elektrolysezellen geeignet sind, bei dem ein Flächengebilde durch Walzen einer Pulvermischung, welche wenigstens einen Katalysator oder eine Katalysatormischung und einen Binder enthält, her. Bei einer ersten bevorzugten Ausführungsform des erfindungsgemäßen Verfahrens ist die Zuhaltkraft der Walzen während des Walzprozesses der Pulvermischung konstant gehalten. Die Zuhaltkraft liegt hierbei im Bereich von 0,2 kN/cm bis 15 kN/cm. Bei einer zweiten bevorzugten Ausführungsform der Erfindung beträgt der Walzendurchmesser maximal 15 cm. Bei einer dritten bevorzugten Ausführungsform wird das Flächengebilde durch Walzen unter einer Linienkraft von 0,1 kN/cm bis 2 kN/cm mit einem elektrisch leitfähigen Katalysatorträger verbunden.

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For an explanation of the two-letter codes and the other abbreviations, reference is made to the explanations ("Guidance Notes on Codes and Abbreviations") at the beginning of each regular edition of the PCT Gazette.