

Title (en)
DIAPHRAGM BASED ON NICKEL OXIDE AND PROCESS FOR ITS MANUFACTURE

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Application
EP 84105869 A 19840523

Priority
DE 3318758 A 19830524

Abstract (en)
[origin: US4559124A] The invention concerns a NiO-based ceramic oxide diaphragm for the alkaline water electrolysis. The diaphragm, in accordance with the invention, contains 0.5 to 10% by weight (estimated as Ti based on the oxide mass) of titanium oxide in the porous NiO layer. Diaphragms of this type are obtained, in particular, by the oxidative sintering of a mass of nickel powder which has been applied under pressure to a nickel support, especially one consisting of nickel wire gauze. In the process the titanium is in the form of titanium metal, titanium oxide or a titanium compound which is added to the initial nickel powder. The titanium is present in the form of its oxide after the oxidation sintering treatment. In an alternative embodiment of the process, an already sintered porous mass of nickel or nickel oxide can be impregnated with a titanium compound and calcined to convert the titanium compound to its oxide.

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