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TITLE

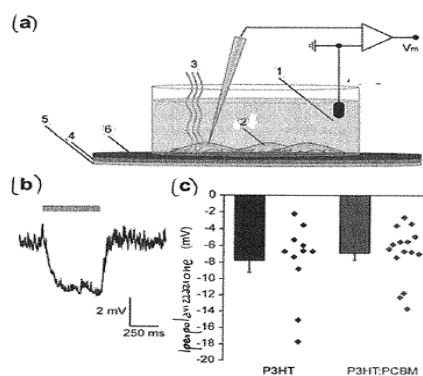
Organic device for the photoinhibition of excitable cells

INVENTORS

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DESCRIPTION

The invention relates to a device for the inhibition of the electric activity of an excitable cell through the application of a light pulse, comprising a substrate and a photoreactive film, both made with a non-conductive material and directly disposed laminated on each other, in which the photoreactive film includes a semi-conductive polymeric layer and has an interface surface able to be put in contact with an excitable cell and an electrolytic solution. The photoreactive film, when placed in contact with the excitable cell and with an electrolytic solution, it produces as a result of light absorption a potential difference across the interface surface, able to conduct a membrane hyperpolarization of the excitable cell.



APPLICATIONS

Photo-stimulation, photo-inhibition, retinic prosthesis

KEYWORDS

Semiconductor, polymer, neuron, visible light, retina, membrane, excitable cells

BIBLIOGRAPHIC DATA

Dispositivo organico per la fotoinibizione di cellule eccitabili

Application Number

IT TO2013A000665

Priority Date

August 2, 2013

Applicants

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