

Title (en)
MICROELECTRODES MADE FROM STRUCTURED DIAMOND FOR NEURAL INTERFACING APPLICATIONS

Title (de)
MIKROELEKTRODEN AUS STRUKTURIERTEM DIAMANT FÜR NEURONALE SCHNITTSTELLENANWENDUNGEN

Title (fr)
MICROÉLECTRODES À BASE DE DIAMANT STRUCTURÉ POUR DES APPLICATIONS D'INTERFAÇAGE NEURONAL

Publication
EP 3057499 A1 20160824 (FR)

Application
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Abstract (en)
[origin: WO2015056175A1] A microelectrode (2) for neural interfacing applications comprises a first substrate layer (4), a second attachment layer (6), and a third layer (8) forming the active part of the electrode (2) of which the material consists of synthetic diamond made electrically conductive by doping with atoms chosen from boron, nitrogen and phosphorus atoms. The material of the third layer (8) is a textured material that comprises a compact assembly, in the form of a brush, of tubes (26) each comprising, in the form of at least one peripheral outer layer, polycrystalline diamond made electrically conductive by doping. The tubes (26) are separated from each other at the first fixed ends (28) of same and project the free ends (30) of same away from the first and second layers (4, 6) in a direction that is substantially vertical relative to the extension plane (20) of the second layer (6). A method for producing said microelectrode is also described.

IPC 8 full level
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See references of WO 2015056175A1

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