

Title (en)
TRANSPARENT RESONANT-TUNNELING DIODE AND METHOD FOR PRODUCING SAME

Title (de)
TRANSPARENTE RESONANTE TUNNELDIODE UND VERFAHREN ZU IHRER HERSTELLUNG

Title (fr)
DIODE TRANSPARENTE À EFFET TUNNEL RÉSONNANT ET PROCÉDÉ POUR LA FABRIQUER

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Abstract (en)
[origin: WO2021255236A1] The invention relates to a resonant-tunneling diode (10) comprising an electrically insulating substrate (12), a metal layer (14), and a transition metal oxide layer (16). The metal layer (14) is applied onto the substrate (12), and the transition metal oxide layer (16) is applied onto the metal layer (14). The metal layer (14) and the transition metal oxide layer (16) have an amorphous structure. The invention additionally relates to a method for producing a resonant-tunneling diode (10) comprising an electrically insulating substrate (12), a metal layer (14), and a transition metal oxide layer (16), having the steps of: a) providing the substrate (12), b) coating the provided substrate (12) with the metal layer (14) using a direct sputtering process such that the metal layer (12) has an amorphous structure, and c) coating the metal layer (14) with the transition metal oxide layer (16) using a reactive sputtering process such that the transition metal oxide layer (16) has an amorphous structure.

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