

Title (en)

PROCESS FOR COATING A METAL SUBSTRATE

Title (de)

VERFAHREN ZUM BESCHICHTEN EINES METALLISCHEN SUBSTRATES

Title (fr)

PROCEDE DE REVETEMENT D'UN SUBSTRAT EN METAL

Publication

**EP 0870074 A1 19981014 (FR)**

Application

**EP 96941074 A 19961128**

Priority

- FR 9601889 W 19961128
- FR 9515582 A 19951227

Abstract (en)

[origin: WO9724470A1] A surface preoxidation of the substrate (5) is carried out by placing the substrate in contact with an oxidant gas excited in a cold plasma, the substrate (5) being placed in the post-discharge of the plasma flow and heated to a temperature lower than 480 DEG C. At a temperature lower than 500 DEG C, metal boride is deposited on the preoxidized substrate (5). The deposition of boride is obtained by placing in contact with each other and with the substrate (5) a metal halide, a boron compound and a reducer element, in the form of gas substances. At least one of the gas substances is excited in a cold plasma. The process is particularly intended to coat the internal surface or the external surface of the lining tube of zirconium alloy with a zirconium boride layer which absorbs the neutrons.

IPC 1-7

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IPC 8 full level

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CPC (source: EP)

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Citation (search report)

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