

Title (en)  
PROCESS FOR APPLYING CERAMIC MATERIAL.

Title (de)  
VERFAHREN ZUM AUFTRAGEN VON KERAMISCHEM MATERIAL.

Title (fr)  
PROCEDE POUR APPLIQUER UN MATERIAU CERAMIQUE.

Publication  
**EP 0425623 B1 19940316 (DE)**

Application  
**EP 90906956 A 19900426**

Priority  
DE 3914722 A 19890504

Abstract (en)  
[origin: WO9013681A1] Process for applying a coating of ceramic material on a substrate by plasma spraying. The material to be sprayed, which is incorporated in the plasma jet, includes a chemical compound one constituent of which is a nonmetallic element from the group N, C, B or from main groups VI or VII of the periodic classification, which decomposes, at least partially, in an inert environment before reaching the melting point and which is present in the solid phase in the applied state. To improve the process so that the chemical compound contained in the material can be applied to the substrate stoichiometrically, i.e., undecomposed, and form an impermeable, adherent, stable coating, the non-metallic element is incorporated in the plasma jet, in addition to the material to be sprayed, in a free form, not bound to a foreign element.

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**C23C 4/12**

IPC 8 full level  
**C23C 4/12** (2006.01); **C23C 4/137** (2016.01)

CPC (source: EP)  
**C23C 4/137** (2016.01)

Citation (examination)  

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- Applied Physics Letters, volume 52, 21 March 1988, (New York, US) K. Tachikawa: "High Tc superconducting films of Y-Ba-Cu oxides prepared by low-pressure plasma spraying", pages 1011-1013, see page 1011, left-hand column; figure 1
- Welding Journal, volume 66, No. 2, February 1987, (Miami, Florida, US) G.M. Herterick: "Gas selection in plasma spraying", pages 27-30, right-hand column, lines 23-45; page 28, left hand column, right-hand column, page 30, left-hand column, line 16-end

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