

Title (en)  
DIRECTLY HEATED CATHODE MANUFACTURED FROM THERMALLY EMISSIVE MATERIAL

Publication  
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Application  
**EP 89400375 A 19890209**

Priority  
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Abstract (en)  
[origin: EP0330543A1] The present invention relates to a directly heated thermoelectron emission cathode. It consists of a hollow perforated cylindrical base structure made of pyrolytic graphite which is covered with a layer of the thermoemissive material. The loss of thermoemissive material by evaporation is limited by depositing a layer of a refractory material onto it. The refractory material is a compound of boron and a transition metal, or a compound of boron and a metal of the platinum type, or a compound of silicon and a metal, or a metal carbide. Application to cathodes for high power electron tubes or for electron microscope filaments.

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**H01J 1/15**

IPC 8 full level  
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