

Title (en)  
TUNGSTEN-IRIDIUM IMPREGNATED CATHODE

Publication  
**EP 0157634 B1 19880817 (EN)**

Application  
**EP 85302311 A 19850402**

Priority  
US 59578984 A 19840402

Abstract (en)  
[origin: EP0157634A2] Porous agglomerates (14) are made from pure tungsten by sintering fine particles together and mechanically breaking down the mass to form some agglomerates (14) considerably larger than the particles. These agglomerates (14) are mixed with fine iridium powder (18) and sintered to form a porous mass. The mass is machined to the cathode shapes (10 min ) and impregnated with an alkaline earth aluminate (18). The large agglomerates (14) alloy with the iridium only on their outer surface. Their pure tungsten interior provides the surfaces to reduce the alkaline earth oxide to the metal which activates the cathode.

IPC 1-7  
**H01J 1/28**; **H01J 1/14**; **H01J 9/04**

IPC 8 full level  
**H01J 1/14** (2006.01); **H01J 1/28** (2006.01); **H01J 9/04** (2006.01)

CPC (source: EP)  
**H01J 1/28** (2013.01); **H01J 9/04** (2013.01)

Cited by  
EP1193733A1; EP0720198A1; CN1084924C; US5134343A; EP0720197A1; US5703429A; CN1070636C; US6844678B2

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