

Title (en)  
Image intensifier tubes.

Title (de)  
Bildverstärkerröhre.

Title (fr)  
Tubes intensificateurs d'image.

Publication  
**EP 0253561 A1 19880120 (EN)**

Application  
**EP 87306027 A 19870708**

Priority  
US 88633986 A 19860717

Abstract (en)  
An image intensifier tube (10) having an evacuated tube envelope (12) and an output window (16) mounted in association with one end of the envelope (12) by a sealing arrangement (30, 36, 38, 40, 42) comprising ductile material (40) compressed between two opposing sealing surfaces (36, 42) one (42) forming a portion of the window (16) and the other (36) forming a portion of the envelope (12), the sealing arrangement effecting a substantially vacuum tight seal while permitting relaxation of stresses by allowing relative movement between the window (16) and envelope (12). The ductile material (40) is suitably indium although other ductile material such as gallium, lead, platinum, tin, gold and silver can be used as well. To form the seal the sealing surfaces (36, 42) are first metallized with a suitable wetting material, such as copper, a predetermined thickness of the ductile material (40) is then applied to a first one (36) of the metallized sealing surfaces (36, 42), the second metallized sealing surface (42) is then positioned in opposing coplanar relationship with the first (36) such that the second metallized surface (42) contacts the ductile material (40), the ductile material (40) is then compressed between the sealing surfaces (36, 42) thereby reducing the predetermined thickness of the ductile material (40), and finally the sealing surfaces (36, 42) along with the compressed ductile material (40) are heated to cause the ductile material (40) to wet the metallized sealing surfaces (36, 42).

IPC 1-7  
**H01J 31/50**; H01J 9/26; H01J 5/22; C03C 27/04

IPC 8 full level  
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CPC (source: EP)  
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