

Title (en)

Process for preparing a welded workpiece, in particular a tube, from dispersion-hardened platinum material

Title (de)

Verfahren zur Herstellung eines aus dispersionsverfestigtem Platinwerkstoff bestehenden, geschweissten Formkörpers, insbesondere eines Rohres

Title (fr)

Procédé de préparation d'un article soudé, en particulier un tube, en matériau à base de platine renforcé par dispersion

Publication

EP 0947595 B1 20050511 (DE)

Application

EP 99104851 A 19990311

Priority

DE 19813988 A 19980328

Abstract (en)

[origin: EP0947595A2] A welded hollow article of oxide dispersion strengthened platinum is produced by shaping and welding a base metal-containing platinum alloy prior to internal oxidation. Production of a welded hollow article, especially a tube, of platinum material dispersion strengthened by base metal oxide particles of yttrium, zirconium and/or cerium oxide comprises shaping and welding one or more base metal-containing platinum alloy parts to a preform body, thermally oxidizing to achieve ≥ 75 wt.% oxidation and then shaping the preform body. An Independent claim is also included for an article, especially a tube, produced by the above process. Preferred Features: The platinum-base metal alloy is a Pt-Rh, Pt-Ir or Pt-Au alloy doped with 0.1-0.2 wt.% Zr and 0.01-0.05 wt.% Y and/or 0.05-0.2 wt.% Ce.

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CPC (source: EP US)

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Cited by

DE102013225187B4; EP1964938A1; US8226855B2; WO2015082630A1; EP3121297A1; EP3971311A1; US11781208B2; EP3978884A1; US12024763B2

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