

Title (en)

Oxygen-generating electrode and method for the preparation thereof.

Title (de)

Elektrode für die Entwicklung von Sauerstoff und deren Herstellungsverfahren.

Title (fr)

Electrode pour la production d'oxygène et son procédé de préparation.

Publication

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Application

EP 88308794 A 19880922

Priority

JP 13137488 A 19880531

Abstract (en)

The electrode of the invention suitable for use in an oxygen-generating electrolytic process comprises (A) a substrate of, e.g., titanium metal and (B) a coating layer thereon which is formed with a mixture of iridium oxide, tantalum oxide and elementary platinum in a specified molar proportion. The coating layers can be formed by coating the substrate surface with a solution containing an iridium compound, tantalum compound and platinum compound each having thermal decomposability and then subjecting the coated substrate to a heat treatment in an oxidizing atmosphere so as to convert the iridium and tantalum compounds into respective oxides and the platinum compound into elementary platinum. Further, the coating layer is preferably provided with an overcoating layer formed of iridium oxide or of a mixture of iridium oxide and tantalum oxide in a similar manner.

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IPC 8 full level

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CPC (source: EP)

C25B 11/093 (2021.01); **C25C 7/02** (2013.01)

Citation (search report)

- [A] GB 2099019 A 19821201 - PERMELEC ELECTRODE LTD
- [Y] EP 0243302 A1 19871028 - ELTECH SYSTEMS CORP [US]
- [A] GB 2134544 A 19840815 - PERMELEC ELECTRODE LTD
- [YD] PATENT ABSTRACTS OF JAPAN, vol. 5, no. 204 (C-85)[876], 24th December 1981; & JP-A-56 123 388 (ASAHI KASEI KOGYO K.K.) 28-09-1981

Cited by

EP0531264A3; EP0715002A1; EP0560338A3; GB2239260A; FR2656337A1; GB2239260B; CN103119205A; EP0545869A1; US5354444A; US6103299A; CN116219470A; US9353448B2; US6217729B1; US6572758B2; WO0060141A1

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