

Publication

EP 0578946 A3 19940209

Application

EP 93108108 A 19930518

Priority

DE 4217338 A 19920526

Abstract (en)

[origin: EP0578946A2] The present invention describes a process for preparing glyoxylic acid by electrochemical reduction of oxalic acid in aqueous solution in divided or undivided electrolytic cells, characterized in that the cathode comprises from 50 to 99.999% by weight of lead and the aqueous electrolysis solution in the undivided cells or in the cathode space of the divided cells additionally contains at least one salt of metals having a hydrogen overvoltage (overpotential) of at least 0.25 V, based on a current density of 2500 A/m², and at least one mineral acid or organic acid. The process of the invention has the advantage that a highly pure, expensive lead cathode is not necessary and industrially available lead-containing materials can be used, for example alloys which, besides lead, contain at least one of the metals V, Sb, Ca, Sn, Ag, Ni, As, Cd and Cu. Periodic rinsing with nitric acid is not necessary.

IPC 1-7

C25B 3/04; **C25B 11/04**

IPC 8 full level

C07C 51/00 (2006.01); **C07C 59/153** (2006.01); **C25B 3/25** (2021.01)

CPC (source: EP US)

C25B 3/25 (2021.01 - EP US)

Citation (search report)

- [DXY] WO 9119832 A1 19911226 - ERCROS SA [ES]
- [YA] FR 2151150 A5 19730413 - RHONE POULENC SA
- [DYA] DE 347605 C 19220206 - FARBENFAB VORM BAYER F & CO
- [A] EP 0221790 A1 19870513 - HOECHST FRANCE [FR] & US 4692226 A 19870908 - GIMENEZ ISABELLE [FR], et al

Cited by

CN1303252C

Designated contracting state (EPC)

AT BE CH DE FR GB IT LI NL

DOCDB simple family (publication)

EP 0578946 A2 19940119; **EP 0578946 A3 19940209**; **EP 0578946 B1 19960214**; AT E134224 T1 19960215; BR 9302036 A 19931130; CA 2096901 A1 19931127; DE 4217338 A1 19931202; DE 4217338 C2 19940901; DE 59301621 D1 19960328; JP H0657471 A 19940301; US 5395488 A 19950307

DOCDB simple family (application)

EP 93108108 A 19930518; AT 93108108 T 19930518; BR 9302036 A 19930524; CA 2096901 A 19930525; DE 4217338 A 19920526; DE 59301621 T 19930518; JP 12283893 A 19930525; US 6653393 A 19930524