

**CPC****COOPERATIVE PATENT CLASSIFICATION****C25B****ELECTROLYTIC OR ELECTROPHORETIC PROCESSES FOR THE PRODUCTION OF COMPOUNDS OR NON-METALS; APPARATUS THEREFOR****NOTE**

In this subclass, in the absence of an indication to the contrary, classification is made in the last appropriate place.

Compounds of particular interest are also classified in the relevant classes, e.g. [C01](#), [C07](#).

**WARNING**

The following IPC groups are not used in the CPC system. Subject matter covered by these groups is classified in the following CPC groups:

[C25B 11/06](#) covered by [B01J](#), [C25B 11/0442](#)  
[C25B 11/08](#) covered by [B01J](#), [C25B 11/0442](#)  
[C25B 11/10](#) covered by [C25B 11/0442](#)

**C25B 1/00****Electrolytic production of inorganic compounds or non-metals****C25B 1/003**

- . { by photo-electrolysis with or without external current source }

**C25B 1/006**

- . { of silicon }

**C25B 1/02**

- . of hydrogen or oxygen

**C25B 1/04**

- .. by electrolysis of water

**C25B 1/06**

- ... in cells with flat or platelike electrodes

**C25B 1/08**

- .... of the filter-press type

**C25B 1/10**

- ... in diaphragm cells

**C25B 1/12**

- ... in pressure cells

**C25B 1/13**

- . of ozone

**C25B 1/14**

- . of alkali metal compounds

**C25B 1/16**

- .. Hydroxides

**C25B 1/18**

- . of alkaline earth metal compounds or magnesium compounds

**C25B 1/20**

- .. Hydroxides

**C25B 1/21**

- . of manganese oxides

**C25B 1/22**

- . of inorganic acids

**C25B 1/24**

- . of halogens or compounds thereof

- C25B 1/245 . . { Fluorine; Compounds thereof }
- C25B 1/26 . . Chlorine; Compounds thereof
- C25B 1/265 . . . { Chlorates }
- C25B 1/28 . of per-compounds
- C25B 1/285 . . { Persulfates }
- C25B 1/30 . . Peroxides
- C25B 1/32 . . Perborates
- C25B 1/34 . Simultaneous production of alkali metal hydroxides and chlorine, its oxyacids or salts
- C25B 1/36 . . in mercury cathode cells
- C25B 1/38 . . . with vertical mercury cathode
- C25B 1/40 . . . with horizontal mercury cathode
- C25B 1/42 . . . Decomposition of amalgams
- C25B 1/44 . . . . with the aid of catalysts
- C25B 1/46 . . in diaphragm cells

### **C25B 3/00 Electrolytic production of organic compounds**

- C25B 3/02 . by oxidation
- C25B 3/04 . by reduction
- C25B 3/06 . by halogenation
- C25B 3/08 . . by fluorination
- C25B 3/10 . by coupling reactions, e.g. dimerisation
- C25B 3/105 . . { hydrodimerisation }
- C25B 3/12 . of organo-metallic compounds

### **C25B 5/00 Electrogenative processes, i.e. processes for producing compounds in which simultaneously electricity is generated**

### **C25B 7/00 Electrophoretic production of compounds or non-metals ( separation or purification of peptides, e.g. of proteins, by electrophoresis [C07K 1/26](#) )**

### **C25B 9/00 Cells or assemblies of cells; Constructional parts of cells; Assemblies of constructional parts, e.g. electrode-diaphragm assemblies**

- C25B 9/005 . { Amalgam decomposition cells }
- C25B 9/02 . Holders for electrodes
- C25B 9/04 . Devices for current supply ( [electrical connections in general H01R](#) ); Electrode connections; Electric inter-cell connections

- C25B 9/045 .. { Electric inter-cell connections including jumper switches }
- C25B 9/06 . Cells comprising dimensionally-stable non-movable electrodes; Assemblies of constructional parts thereof
- C25B 9/063 .. { including bipolar electrodes }
- C25B 9/066 ... { and diaphragms }
- C25B 9/08 .. with diaphragm
- C25B 9/10 ... including an ion-exchange membrane in or on which electrode material is embedded
- C25B 9/12 . Cells or assemblies of cells comprising at least one movable electrode, e.g. rotary electrodes; Assemblies of constructional parts thereof
- C25B 9/125 .. { Rotary electrodes }
- C25B 9/14 .. Liquid electrodes, e.g. mercury electrodes
- C25B 9/142 ... { of the horizontal type }
- C25B 9/144 .... { Grouping of such cells into batteries }
- C25B 9/146 ... { of the vertical type }
- C25B 9/148 .... { Grouping of such cells into batteries }
- C25B 9/16 . Cells or assemblies of cells comprising at least one electrode made of particles; Assemblies of constructional parts thereof
- C25B 9/162 .. { comprising fluidised bed electrodes }
- C25B 9/164 ... { Grouping of such cells into batteries }
- C25B 9/166 .. { comprising static bed electrodes }
- C25B 9/168 ... { Grouping of such cells into batteries }
- C25B 9/18 . Assemblies comprising a plurality of cells ({ [C25B 9/005](#) takes precedence ; assemblies of cells with movable electrodes [C25B 9/12](#); assemblies of cells with electrodes made of particles [C25B 9/16](#) )
- C25B 9/20 .. of the filter-press type
- C25B 9/203 ... { with bipolar electrodes }
- C25B 9/206 .... { with diaphragms }
- C25B 11/00      Electrodes; Manufacture thereof not otherwise provided for**
- C25B 11/02 . characterised by shape or form
- C25B 11/03 .. perforated or foraminous
- C25B 11/035 ... Porous electrodes
- C25B 11/04 . characterised by the material
- C25B 11/0405 .. { of electrodes having a substrate and a coating }
- C25B 11/041 .. { characterised by the material of the substrate }
- C25B 11/0415 ... { consisting of one single element or compound }
- C25B 11/0421 .... { Silicon }
- C25B 11/0426 ... { consisting of plurality elements or compounds }
- C25B 11/0431 .... { Metal alloys }

- C25B 11/0436 . . . . { comprising metal powder and a non-metallic binder }
- C25B 11/0442 . . { characterised by the material of the coating }
- C25B 11/0447 . . . { Coatings consisting of a single component }
- C25B 11/0452 . . . . { Non-noble metal oxides }
- C25B 11/0457 . . . . . { of the spinel type }
- C25B 11/0463 . . . . . { of the perovskite type }
- C25B 11/0468 . . . . . { of the rutile type }
- C25B 11/0473 . . . . { Noble metals }
- C25B 11/0478 . . . { Coatings consisting of two or more components }
- C25B 11/0484 . . . . { comprising at least a noble metal or noble metal oxide and a non-noble metal oxide }
- C25B 11/0489 . . . . { at least one of the components being an organic compound }
- C25B 11/0494 . . . . { comprising two or more noble metals or noble metal alloys }
- C25B 11/12 . . Electrodes based on carbon ( carbon masses in general [C04B 35/52](#) )  
{( [C25B 11/0405](#) takes precedence )}
- C25B 11/14 . . . Impregnation of carbon electrodes {( [C25B 11/0405](#) takes precedence )}
- C25B 11/16 . . Electrodes based on manganese dioxide or lead dioxide {( [C25B 11/0405](#) takes precedence )}
- C25B 11/18 . . Mercury or amalgam electrodes {( [C25B 11/0405](#) takes precedence )}

## **C25B 13/00      Diaphragms; Spacing elements**

- C25B 13/02 . characterised by form or shape
- C25B 13/04 . characterised by the material
- C25B 13/06 . . based on asbestos
- C25B 13/08 . . based on organic materials

## **C25B 15/00      Operating or servicing of cells**

- C25B 15/02 . Process control or regulation ( controlling or regulating in general [G05](#) )
- C25B 15/04 . Regulation of the inter-electrode distance ( electro-machining [B23P](#) )
- C25B 15/06 . Detection or inhibition of short circuits in the cell
- C25B 15/08 . Supplying or removing reactants or electrolytes; Regeneration of electrolytes