

# CPC COOPERATIVE PATENT CLASSIFICATION

## C CHEMISTRY; METALLURGY

(NOTES omitted)

### METALLURGY

#### C23 COATING METALLIC MATERIAL; COATING MATERIAL WITH METALLIC MATERIAL; CHEMICAL SURFACE TREATMENT; DIFFUSION TREATMENT OF METALLIC MATERIAL; COATING BY VACUUM EVAPORATION, BY SPUTTERING, BY ION IMPLANTATION OR BY CHEMICAL VAPOUR DEPOSITION, IN GENERAL; INHIBITING CORROSION OF METALLIC MATERIAL OR INCRUSTATION IN GENERAL

(NOTES omitted)

#### C23G CLEANING OR DEGREASING OF METALLIC MATERIAL BY CHEMICAL METHODS OTHER THAN ELECTROLYSIS ([polishing compositions C09G](#); [detergents in general C11D](#))

##### WARNING

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

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| <p><b>1/00</b>     <b>Cleaning or pickling metallic material with solutions or molten salts</b> (<a href="#">with organic solvents C23G 5/02</a>)</p> <p>1/02     . with acid solutions</p> <p>1/025    . . {acidic pickling pastes}</p> <p>1/04     . . using inhibitors</p> <p>1/06     . . . organic inhibitors</p> <p style="padding-left: 40px;"><b>NOTE</b></p> <p style="padding-left: 80px;">In groups <a href="#">C23G 1/061</a> - <a href="#">C23G 1/068</a> an invention is classified in the last appropriate place</p> <p>1/061    . . . . {nitrogen-containing compounds}</p> <p>1/063    . . . . {heterocyclic compounds}</p> <p>1/065    . . . . {sulfur-containing compounds}</p> <p>1/066    . . . . {phosphorus-containing compounds}</p> <p>1/068    . . . . {compounds containing a C=C bond}</p> <p>1/08     . . Iron or steel</p> <p style="padding-left: 40px;"><b>NOTE</b></p> <p style="padding-left: 80px;">In groups <a href="#">C23G 1/081</a> - <a href="#">C23G 1/088</a> an invention is classified in the last appropriate place</p> <p>1/081    . . . {solutions containing H<sub>2</sub>SO<sub>4</sub>}</p> <p>1/083    . . . {solutions containing H<sub>3</sub>PO<sub>4</sub>}</p> <p>1/085    . . . {solutions containing HNO<sub>3</sub>}</p> <p>1/086    . . . {solutions containing HF}</p> <p>1/088    . . . {solutions containing organic acids}</p> <p>1/10     . . Other heavy metals</p> <p>1/103    . . . {copper or alloys of copper}</p> <p>1/106    . . . {refractory metals}</p> <p>1/12     . . Light metals</p> <p>1/125    . . . {aluminium}</p> <p>1/14     . with alkaline solutions</p> | <p>1/16     . . using inhibitors</p> <p>1/18     . . . Organic inhibitors</p> <p>1/19     . . Iron or steel</p> <p>1/20     . . Other heavy metals</p> <p>1/205    . . . {refractory metals}</p> <p>1/22     . . Light metals</p> <p>1/24     . with neutral solutions</p> <p>1/26     . . using inhibitors</p> <p>1/28     . with molten salts</p> <p>1/30     . . using inhibitors</p> <p>1/32     . . Heavy metals</p> <p>1/34     . . Light metals</p> <p>1/36     . Regeneration of waste pickling liquors</p> <p><b>3/00</b>     <b>Apparatus for cleaning or pickling metallic material</b> (<a href="#">with organic solvents C23G 5/04</a> ; <a href="#">apparatus for continuously conveying articles into baths B65G</a>)</p> <p>3/02     . for cleaning wires, strips, filaments continuously</p> <p>3/021    . . {by dipping}</p> <p>3/022    . . . {the objects following a helicoidal path}</p> <p>3/023    . . {by spraying}</p> <p>3/024    . . {by a combination of dipping and spraying}</p> <p>3/025    . . {Details of the apparatus, e.g. linings or sealing means}</p> <p>3/026    . . . {for guiding the objects}</p> <p>3/027    . . {Associated apparatus, e.g. for pretreating or after-treating}</p> <p>3/028    . . . {for thermal or mechanical pretreatment}</p> <p>3/029    . . . {for removing the pickling fluid from the objects}</p> <p>3/04     . for cleaning pipes</p> |
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**5/00     Cleaning or de-greasing metallic material by other methods; Apparatus for cleaning or de-greasing metallic material with organic solvents**

**NOTE**

Mixtures of organic solvents are classified according to the major component

- 5/02     . using organic solvents
- 5/024   . . containing hydrocarbons
- 5/028   . . containing halogenated hydrocarbons
- 5/02803 . . . {containing fluorine}
- 5/02806 . . . {containing only chlorine as halogen atom}
- 5/02809 . . . {containing chlorine and fluorine}
- 5/02812 . . . . {Perhalogenated hydrocarbons}
- 5/02816 . . . . . {Ethanes}
- 5/02819 . . . . . {C<sub>2</sub>Cl<sub>3</sub>F<sub>3</sub>}
- 5/02822 . . . . . {C<sub>2</sub>Cl<sub>4</sub>F<sub>2</sub>}
- 5/02825 . . . . {containing hydrogen}
- 5/02829 . . . . . {Ethanes}
- 5/02832 . . . . . {C<sub>2</sub>H<sub>3</sub>Cl<sub>2</sub>F}
- 5/02835 . . . . . {C<sub>2</sub>H<sub>2</sub>Cl<sub>2</sub>F<sub>2</sub>}
- 5/02838 . . . . . {C<sub>2</sub>HCl<sub>2</sub>F<sub>3</sub>}
- 5/02841 . . . . . {Propanes}
- 5/02845 . . . . . {C<sub>3</sub>H<sub>3</sub>ClF<sub>4</sub>}
- 5/02848 . . . . . {C<sub>2</sub>H<sub>2</sub>Cl<sub>2</sub>F<sub>4</sub>}
- 5/02851 . . . . . {C<sub>2</sub>HCl<sub>2</sub>F<sub>5</sub>}
- 5/02854 . . . {characterised by the stabilising or corrosion inhibiting additives}
- 5/02858 . . . . {Hydrocarbons}
- 5/02861 . . . . {Oxygen-containing compounds}
- 5/02864 . . . . . {Alcohols}
- 5/02867 . . . . . {aliphatic}
- 5/0287   . . . . . {aromatic}
- 5/02874 . . . . . {Aldehydes or ketones}
- 5/02877 . . . . . {Ethers}
- 5/0288   . . . . . {Epoxy compounds}
- 5/02883 . . . . {Nitrogen-containing compounds}
- 5/02887 . . . . . {Nitro-compounds}
- 5/0289   . . . . . {N-heterocyclics}
- 5/02893 . . . . {Sulfur-containing compounds}
- 5/02896 . . . . {Phosphorus-containing compounds}
- 5/032   . . containing oxygen-containing compounds
- 5/036   . . . having also nitrogen
- 5/04     . . Apparatus
- 5/06     . using emulsions