

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

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 {C₂Cl₃F₃}
- 5/02822 {C₂Cl₄F₂}
- 5/02825 {containing hydrogen}
- 5/02829 {Ethanes}
- 5/02832 {C₂H₃Cl₂F}
- 5/02835 {C₂H₂Cl₂F₂}
- 5/02838 {C₂HCl₂F₃}
- 5/02841 {Propanes}
- 5/02845 {C₃H₃ClF₄}
- 5/02848 {C₂H₂Cl₂F₄}
- 5/02851 {C₂HCl₂F₅}
- 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