

# 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 DE-GREASING OF METALLIC MATERIAL BY CHEMICAL METHODS OTHER THAN ELECTROLYSIS

1/00	<b>Cleaning or pickling metallic material with solutions or molten salts (with organic solvents <a href="#">C23G 5/02</a>)</b>	1/22	. . Light metals
1/02	. with acid solutions	1/24	. with neutral solutions
1/025	. . {acidic pickling pastes}	1/26	. . using inhibitors
1/04	. . using inhibitors	1/28	. with molten salts
1/06	. . . organic inhibitors	1/30	. . using inhibitors
	<b>NOTE</b>	1/32	. . Heavy metals
	In groups <a href="#">C23G 1/061</a> - <a href="#">C23G 1/068</a> an invention is classified in the last appropriate place	1/34	. . Light metals
1/061	. . . . {nitrogen-containing compounds}	1/36	. Regeneration of waste pickling liquors
1/063	. . . . {heterocyclic compounds}	<b>3/00</b>	<b>Apparatus for cleaning or pickling metallic material (with organic solvents <a href="#">C23G 5/04</a>)</b>
1/065	. . . . {sulfur-containing compounds}	3/02	. for cleaning wires, strips, filaments continuously
1/066	. . . . {phosphorus-containing compounds}	3/021	. . {by dipping}
1/068	. . . . {compounds containing a C=C bond}	3/022	. . . {the objects following a helicoidal path}
1/08	. . Iron or steel	3/023	. . {by spraying}
	<b>NOTE</b>	3/024	. . {by a combination of dipping and spraying}
	In groups <a href="#">C23G 1/081</a> - <a href="#">C23G 1/088</a> an invention is classified in the last appropriate place	3/025	. . {Details of the apparatus, e.g. linings or sealing means}
1/081	. . . {solutions containing H <sub>2</sub> SO <sub>4</sub> }	3/026	. . . {for guiding the objects}
1/083	. . . {solutions containing H <sub>3</sub> PO <sub>4</sub> }	3/027	. . {Associated apparatus, e.g. for pretreating or after-treating}
1/085	. . . {solutions containing HNO <sub>3</sub> }	3/028	. . . {for thermal or mechanical pretreatment}
1/086	. . . {solutions containing HF}	3/029	. . . {for removing the pickling fluid from the objects}
1/088	. . . {solutions containing organic acids}	3/04	. for cleaning pipes
1/10	. . Other heavy metals	<b>5/00</b>	<b>Cleaning or de-greasing metallic material by other methods; Apparatus for cleaning or de-greasing metallic material with organic solvents</b>
1/103	. . . {copper or alloys of copper}		<b>NOTE</b>
1/106	. . . {refractory metals}		Mixtures of organic solvents are classified according to the major component
1/12	. . Light metals	5/02	. using organic solvents
1/125	. . . {aluminium}	5/024	. . containing hydrocarbons
1/14	. with alkaline solutions	5/028	. . containing halogenated hydrocarbons
1/16	. . using inhibitors	5/02803	. . . {containing fluorine}
1/18	. . . Organic inhibitors	5/02806	. . . {containing only chlorine as halogen atom}
1/19	. . Iron or steel	5/02809	. . . {containing chlorine and fluorine}
1/20	. . Other heavy metals	5/02812	. . . . {Perhalogenated hydrocarbons}
1/205	. . . {refractory metals}		

- 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