

CPC COOPERATIVE PATENT CLASSIFICATION

C CHEMISTRY; METALLURGY

(NOTES omitted)

CHEMISTRY

C10 PETROLEUM, GAS OR COKE INDUSTRIES; TECHNICAL GASES CONTAINING CARBON MONOXIDE; FUELS; LUBRICANTS; PEAT

C10K PURIFYING OR MODIFYING THE CHEMICAL COMPOSITION OF COMBUSTIBLE GASES CONTAINING CARBON MONOXIDE

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.

- | | |
|--|---|
| <p>1/00 Purifying combustible gases containing carbon monoxide (isolation of hydrogen from mixtures containing hydrogen and carbon monoxide C01B 3/50)</p> <p>1/001 . {working-up the condensates (recovering of NH₃ and NH₄ salts C01C 1/00; working-up or purifying tars and tar-oils C10C 1/00)}</p> <p>1/002 . {Removal of contaminants}</p> <p>1/003 . . {of acid contaminants, e.g. acid gas removal}</p> <p>1/004 . . . {Sulfur containing contaminants, e.g. hydrogen sulfide}</p> <p>1/005 . . . {Carbon dioxide}</p> <p>1/006 . . . {Hydrogen cyanide}</p> <p>1/007 . . {of metal compounds}</p> <p>1/008 . . . {Alkali metal compounds}</p> <p>1/02 . Dust removal</p> <p>1/022 . . {by baffle plates}</p> <p>1/024 . . {by filtration}</p> <p>1/026 . . {by centrifugal forces (cyclones B04C)}</p> <p>1/028 . . {by electrostatic precipitation (separating dispersed particles from gases or vapour by electrostatic effect in general B03C 3/00)}</p> <p>1/04 . by cooling to condense non-gaseous materials (C10K 1/001 takes precedence)}</p> <p>1/043 . . {adding solvents as vapour to prevent naphthalene- or resin deposits}</p> <p>1/046 . . {Reducing the tar content}</p> <p>1/06 . . combined with spraying with water (C10K 1/001 takes precedence)}</p> <p>1/08 . by washing with liquids; Reviving the used wash liquors (gas washers B01D)</p> <p>1/085 . . {two direct washing treatments, one with an aqueous liquid and one with a non-aqueous liquid}</p> <p>1/10 . . with aqueous liquids {(alkaline reacting aqueous liquids C10K 1/12)}</p> <p>1/101 . . . {with water only}</p> <p>1/102 . . . {containing free acid}</p> <p>1/103 . . . {alkali- or earth-alkali- or NH₄ salts or inorganic acids derived from sulfur}</p> | <p>1/105 . . . {containing metal compounds other than alkali- or earth-alkali carbonates, -hydroxides, oxides, or salts of inorganic acids derived from sulfur}</p> <p>1/106 {containing Fe compounds}</p> <p>1/107 {containing As-, Sb-, Sn compounds}</p> <p>1/108 {containing Cu compounds}</p> <p>1/12 . . . alkaline-reacting {including the revival of the used wash liquors}</p> <p>1/121 {containing NH₃ only (possibly in combination with NH₄ salts)}</p> <p>1/122 {containing only carbonates, bicarbonates, hydroxides or oxides of alkali-metals (including Mg)}</p> <p>1/123 {containing alkali-, earth-alkali- or NH₄ salts of inorganic acids derived from sulfur}</p> <p>1/124 {containing metal compounds other than alkali- or earth-alkali carbonates, hydroxides- or oxides- or salts of inorganic acids derived from sulfur}</p> <p>1/125 {containing Fe compounds}</p> <p>1/126 {containing As-, Sb-, Sn compounds}</p> <p>1/127 {containing Cu compounds}</p> <p>1/128 {containing organic oxygen transferring compounds, e.g. sulfoxides}</p> <p>1/14 organic</p> <p>1/143 {containing amino groups}</p> <p>1/146 {alkali-, earth-alkali- or NH₄ salts}</p> <p>1/16 . . with non-aqueous liquids</p> <p>1/165 . . . {at temperatures below zero degrees Celsius}</p> <p>1/18 . . . hydrocarbon oils (C10K 1/165 takes precedence)}</p> <p>1/20 . by treating with solids; Regenerating spent purifying masses {(separation by adsorption B01D 53/02; separation by chemical reaction B01D 53/34; refining of hydrocarbon oils with acids C10G 17/02, C10G 27/02, C10G 29/12)}</p> <p>1/205 . . {Methods and apparatus for treating the purifying masses without their regeneration (recovering of sulfur C01B 17/00; recovering of cyanide compounds C01C 3/00)}</p> <p>1/22 . . Apparatus, e.g. dry box purifiers</p> <p>1/24 . . . Supporting means for the purifying material</p> |
|--|---|

- 1/26 . . Regeneration of the purifying material {contains also apparatus for the regeneration of the purifying material}
- 1/28 . . Controlling the gas flow through the purifiers
- 1/30 . . with moving purifying masses
- 1/32 . with selectively adsorptive solids, e.g. active carbon
- 1/34 . by catalytic conversion of impurities to more readily removable materials

3/00 Modifying the chemical composition of combustible gases containing carbon monoxide to produce an improved fuel, e.g. one of different calorific value, which may be free from carbon monoxide

- 3/001 . {by thermal treatment}
- 3/003 . . {Reducing the tar content}
- 3/005 . . . {by partial oxidation}
- 3/006 . . . {by steam reforming}
- 3/008 . . . {by cracking}
- 3/02 . by catalytic treatment
- 3/023 . . {Reducing the tar content}
- 3/026 . . {Increasing the carbon monoxide content, e.g. reverse water-gas shift [RWGS]}
- 3/04 . . reducing the carbon monoxide content {, e.g. water-gas shift [WGS]}
- 3/06 . by mixing with gases