CPC COOPERATIVE PATENT CLASSIFICATION

C CHEMISTRY; METALLURGY

(NOTES omitted)

CHEMISTRY

C01 INORGANIC CHEMISTRY

(NOTES omitted)

C01D COMPOUNDS OF ALKALI METALS, i.e. LITHIUM, SODIUM, POTASSIUM,

RUBIDIUM, CAESIUM, OR FRANCIUM (metal hydrides {monoborane, diborane or addition complexes thereof} C01B 6/00; salts of oxyacids of halogens C01B 11/00; peroxides, salts of peroxyacids C01B 15/00; sulfides C01B 17/22; thiosulfates, dithionites, polythionates C01B 17/64; compounds containing selenium or tellurium C01B 19/00; binary compounds of nitrogen with metals C01B 21/06; azides C01B 21/08; {compounds other than ammonia and cyanogen, containing nitrogen and other non-metals C01B 21/082}; metal amides C01B 21/092; nitrites C01B 21/50; phosphides C01B 21/50; {compounds of noble gases C01B 23/0005}; phosphides C01B 25/08; salts of oxyacids of phosphorus C01B 25/16; carbides C01B 32/90; compounds containing silicon C01B 33/00; compounds containing boron C01B 35/00; cyanides C01C 3/08; salts of cyanic acid C01C 3/14; salts of cyanamide C01C 3/16; thiocyanates C01C 3/20)

| 1/00 | Oxides or hydroxides of sodium, potassium or alkali metals in general | 3/16 | • • by precipitation or adsorption {(<u>C01D 3/145</u> takes precedence)} |
|---------|--|---------------------|--|
| 1/02 | • Oxides | 3/18 | with selective solvents |
| 1/04 | Hydroxides | 3/20 | by melting |
| 1/20 | Preparation by reacting oxides or hydroxides with alkali metal salts | 3/22 | • Preparation in the form of granules, pieces, or other shaped products |
| 1/22 | with carbonates or bicarbonates | 3/24 | Influencing the crystallisation process |
| 1/24 | from or via fluorides or silico-fluorides | 3/26 | . Preventing the absorption of moisture or caking of |
| 1/26 | . Preparation from or via cyano compounds, e.g. | | the crystals |
| | cyanides, cyanamides | 5/00 | Sulfates or sulfites of sodium, potassium or alkali |
| 1/28 | Purification; Separation | 3/00 | metals in general {(sulfites in general C01B 17/62)} |
| 1/30 | • • by crystallisation | 5/002 | • {Preventing the absorption of moisture or caking of |
| 1/32 | by absorption or precipitation | 3/002 | the crystals by additives} |
| 1/34 | with selective solvents | 5/004 | • {Preparation in the form of granules, pieces or other |
| 1/36 | • • • by oxidation | 3/001 | shaped products} |
| 1/38 | by dialysis | 5/006 | • {Recovery of sodium sulfate from coagulation baths |
| 1/40 | by electrolysis | | for the spinning of viscose} |
| 1/42 | Concentration; Dehydration | 5/008 | • {Preparation of potassium sulfate from alunite} |
| 1/44 | Preparation in the form of granules, pieces, or | 5/02 | Preparation of sulfates from alkali metal salts and |
| | other shaped products | | sulfuric acid or bisulfates; Preparation of bisulfates |
| 3/00 | Halides of sodium, potassium or alkali metals in | 5/04 | . Preparation of sulfates with the aid of sulfurous acid |
| 3/00 | general {(halides in general C01B 9/00)} | | or sulfites, e.g. Hargreaves process {(pyrosulfites or |
| 3/02 | Fluorides | | metabisulfites <u>C01D 5/145</u>)} |
| 3/04 | . Chlorides | 5/06 | Preparation of sulfates by double decomposition |
| 3/06 | Preparation by working up brines; seawater or | 5/08 | with each other or with ammonium sulfate |
| 5/00 | spent lyes | 5/10 | • • with sulfates of magnesium, calcium, strontium, |
| 3/08 | Preparation by working up natural or industrial | | or barium |
| -, -, - | salt mixtures or siliceous minerals | 5/12 | • Preparation of double sulfates of magnesium with |
| 3/10 | • Bromides | | sodium or potassium |
| 3/12 | • Iodides | 5/14 | • Preparation of sulfites (<u>C01D 5/04</u> takes |
| 3/14 | Purification | 5 /1 4 - | precedence) |
| 3/145 | • • {by solid ion-exchangers or solid chelating | 5/145 | • • {Pyrosulfites or metabisulfites} |
| | agents} | 5/16 | • Purification {(<u>C01D 5/145</u> takes precedence)} |

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| 7/00 | Carbonates of sodium, potassium or alkali metals | 15/10 | . Nitrates |
|--------|---|--------|--|
| 7/00 | in general | 17/00 | Rubidium, caesium or fra |
| 7/02 | • Preparation by double decomposition | 17/003 | • {Compounds of alkali m |
| 7/04 | • • with a fluoride or silico-fluoride (<u>C01D 1/24</u> takes precedence) | 17/006 | • • {Preparation of potass precipitating potassium |
| 7/06 | Preparation via sodium or potassium magnesium carbonate | | reagent or extracting to phase } |
| 7/07 | Preparation from the hydroxides | | |
| 7/08 | Preparation from or via cyano compounds of | | |
| | sodium or potassium (C01D 1/26 takes precedence) | | |
| 7/10 | Preparation of bicarbonates from carbonates (ammonia soda process <u>C01D 7/18</u>) | | |
| 7/12 | Preparation of carbonates from bicarbonates {or bicarbonate-containing product} | | |
| 7/123 | {by thermal decomposition of solids in the absence of a liquid medium} | | |
| 7/126 | • • {Multi-step processes, e.g. from trona to soda ash} | | |
| 7/14 | Preparation of sesquicarbonates | | |
| 7/16 | Preparation from compounds of sodium or | | |
| | potassium with amines and carbon dioxide | | |
| 7/18 | Preparation by the ammonia-soda process | | |
| | $\{(\underline{\text{C01D 7/12}} \text{ takes precedence})\}$ | | |
| 7/22 | Purification | | |
| 7/24 | Crystallisation | | |
| 7/26 | by precipitation or adsorption | | |
| 7/28 | with selective solvents | | |
| 7/30 | by oxidation | | |
| 7/32 | by dialysis | | |
| 7/34 | by electrolysis | | |
| 7/35 | • Varying the content of water of crystallisation or the specific gravity {(calcination <u>B01J 6/00</u> , <u>F27B</u>)} | | |
| 7/37 | Densifying sodium carbonate | | |
| 7/38 | Preparation in the form of granules, pieces or other shaped products | | |
| 7/40 | Influencing the crystallisation process | | |
| 7/42 | • Preventing the absorption of moisture or caking | | |
| 9/00 | Nitrates of sodium, potassium or alkali metals in general {(preparation as fertilizers or of fertilizers | | |
| | containing them C05D 5/00)} | | |
| 9/02 | Preparation by working-up natural salt mixtures | | |
| 9/04 | Preparation with liquid nitric acid | | |
| 9/06 | Preparation with gaseous nitric acid or nitrogen oxides | | |
| 9/08 | Preparation by double decomposition | | |
| 9/10 | with ammonium nitrate | | |
| 9/12 | • with nitrates or magnesium, calcium, strontium, or barium | | |
| 9/14 | • of salts of potassium with sodium nitrate | | |
| 9/16 | . Purification | | |
| 9/18 | Preparation in the form of shaped products, e.g. granules | | |
| 9/20 | · Preventing the absorption of moisture or caking | | |
| 13/00 | Compounds of sodium or potassium not provided for elsewhere | | |
| 15/00 | Lithium compounds | | |
| 15/005 | . {Lithium hexafluorophosphate} | | |
| 15/003 | Oxides; Hydroxides | | |
| 15/04 | . Halides | | |
| 15/06 | • Sulfates; Sulfites | | |

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