

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](#))

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

5/18 . Dehydration {[C01D 5/145](#) takes precedence}

7/00 Carbonates of sodium, potassium or alkali metals in general

- 7/02 . Preparation by double decomposition
- 7/04 . . with a fluoride or silico-fluoride ([C01D 1/24](#) takes precedence)
- 7/06 . Preparation via sodium or potassium magnesium carbonate
- 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 [C01D 7/18](#))
- 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 {[C01D 7/12](#) 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 [B01J 6/00](#), [F27B](#))}
- 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}
- 15/02 . Oxides; Hydroxides
- 15/04 . Halides
- 15/06 . Sulfates; Sulfites

15/08 . Carbonates; Bicarbonates

15/10 . Nitrates

17/00 Rubidium, caesium or francium compounds

- 17/003 . {Compounds of alkali metals}
- 17/006 . . {Preparation of potassium compounds comprising precipitating potassium ions by an organic reagent or extracting them by a liquid organic phase}