SECTION C — CHEMISTRY; METALLURGY

C01 INORGANIC CHEMISTRY

C01F COMPOUNDS OF THE METALS BERYLLIUM, MAGNESIUM, ALUMINIUM, CALCIUM, STRONTIUM, BARIUM, RADIUM, THORIUM, OR OF THE RARE-EARTH METALS (metal hydrides C01B 6/00; salts of oxyacids of halogens C01B 11/00; peroxides, salts of peroxyacids C01B 15/00; sulfides or polysulfides of magnesium, calcium, strontium, or barium C01B 17/42; 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; metal amides C01B 21/092; nitrites C01B 21/50; phosphides C01B 25/08; salts of oxyacids of phosphorus C01B 25/16; carbides C01B 31/30; compounds containing silicon C01B 33/00; compounds containing boron C01B 35/00; compounds having molecular sieve properties but not having base-exchange properties C01B 37/00; compounds having molecular sieve and base-exchange properties, e.g. crystalline zeolites, C01B 39/00; cyanides C01C 3/08; salts of cyanic acid C01C 3/14; salts of cyanamide C01C 3/16; thiocyanates C01C 3/20; fermentation or enzyme-using processes for the preparation of elements or inorganic compounds except carbon dioxide C12P 3/00; obtaining metal compounds from mixtures, e.g. ores, which are intermediate compounds in a metallurgical process for obtaining a free metal C22B; production of non-metallic elements or inorganic compounds by electrolysis or electrophoresis C25B)

Note(s) [7, 2006.01]

1. Attention is drawn to Note (1) after class C01, which defines the last place priority rule applied in this class, i.e. in the range of subclasses C01B-C01G and within these subclasses.
2. Therapeutic activity of compounds is further classified in subclass A61P.

1/00 Methods of preparing compounds of the metals beryllium, magnesium, aluminium, calcium, strontium, barium, radium, thorium, or the rare earths, in general [1, 2006.01]

3/00 Compounds of beryllium [1, 2006.01]

3/02 • Oxides; Hydroxides **[3, 2006.01]**

5/00 Compounds of magnesium [1, 2006.01]

5/02 • Magnesia **[1, 2006.01]**

5/04 • • by oxidation of metallic magnesium **[1, 2006.01]**

5/06 • • by thermal decomposition of magnesium compounds (calcining magnesite or dolomite C04B 2/10) **[1, 2006.01]**

5/08 • • • by calcining magnesium hydroxide **[1, 2006.01]**

5/10 • • • by thermal decomposition of magnesium chloride with water vapour **[1, 2006.01]**

5/12 • • • by thermal decomposition of magnesium sulfate, with or without reduction **[1, 2006.01]**

5/14 • Magnesium hydroxide **[1, 2006.01]**

5/16 • • by treating magnesia, e.g. calcined dolomite, with water or solutions of salts not containing magnesium **[1, 2006.01]**

5/20 • • by precipitation from solutions of magnesium salts with ammonia **[1, 2006.01]**

5/22 • • from magnesium compounds with alkali hydroxides or alkaline earth oxides or hydroxides **[1, 2006.01]**

5/24 • Magnesium carbonates **[1, 2006.01]**

5/26 • Magnesium halides **[1, 2006.01]**

5/28 • • Fluorides **[1, 2006.01]**

5/30 • • Chlorides **[1, 2006.01]**

5/32 • • • Preparation of anhydrous magnesium chloride by chlorinating magnesium compounds **[1, 2006.01]**

5/34 • • • Dehydrating magnesium chloride containing water of crystallisation **[1, 2006.01]**

5/36 • • Bromides **[1, 2006.01]**

5/38 • Magnesium nitrates **[1, 2006.01]**

5/40 • Magnesium sulfates (double sulfates of magnesium with sodium or potassium C01D 5/12, with other alkali metals C01D 15/06, C01D 17/00) **[1, 3, 2006.01]**

5/42 • Magnesium sulfites **[1, 2006.01]**

7/00 Compounds of aluminium [1, 2006.01]

7/02 • Aluminium oxide; Aluminium hydroxide; Aluminates **[1, 2006.01]**

7/04 • • Preparation of alkali metal aluminates; Aluminium oxide or hydroxide therefrom **[1, 2006.01]**

7/06 • • • by treating aluminous minerals with alkali hydroxide **[1, 2006.01]**

7/08 • • • by treating aluminous minerals with sodium carbonate **[1, 2006.01]**

7/10 • • • by treating aluminous minerals with alkali sulfates and reducing agents **[1, 2006.01]**

7/12 • • • Alkali metal aluminates from alkaline earth metal aluminates **[1, 2006.01]**

7/14 • • • Aluminium oxide or hydroxide from alkali metal aluminates **[1, 2006.01]**

7/16 • • Preparation of alkaline earth metal aluminates; Aluminium oxide or hydroxide therefrom **[1, 2006.01]**

7/18 • • • Aluminium oxide or hydroxide from alkaline earth metal aluminates **[1, 2006.01]**

7/20 • • Preparation of aluminium oxide or hydroxide from aluminous ores with acids or salts **[1, 2006.01]**

7/22 • • • with halides **[1, 2006.01]**

7/24 • • • with nitric acid or nitrogen oxides **[1, 2006.01]**

7/26 • • • with sulfuric acids or sulfates **[1, 2006.01]**

7/28 • • • with sulfurous acid **[1, 2006.01]**

7/30 • • Preparation of aluminium oxide or hydroxide by thermal decomposition of aluminium compounds **[1, 2006.01]**
7/32 • • • of sulfates **[1, 2006.01]**
7/34 • • Preparation of aluminium hydroxide by precipitation from solutions containing aluminium salts **[1, 2006.01]**
7/36 • • • from organic aluminium salts **[1, 2006.01]**
7/38 • • Preparation of aluminium oxide by thermal reduction of aluminous minerals **[1, 2006.01]**
7/40 • • • in the presence of aluminium sulfide **[1, 2006.01]**
7/42 • • Preparation of aluminium oxide or hydroxide from metallic aluminium, e.g. by oxidation **[1, 2006.01]**
7/44 • • Dehydration of aluminium hydroxide **[1, 2006.01]**
7/46 • • Purification of aluminium oxide, aluminium hydroxide or aluminates **[1, 5, 2006.01]**
7/47 • • • of aluminates **[5, 2006.01]**
7/48 • Aluminium halides **[1, 2006.01]**
7/50 • • Fluorides **[1, 2006.01]**
7/52 • • • Double compounds containing both fluorine and other acid groups **[1, 2006.01]**
7/54 • • • Double compounds containing both aluminium and alkali metals or alkaline earth metals **[1, 2006.01]**
7/56 • • Chlorides (containing fluorine C01F 7/52) **[1, 3, 2006.01]**
7/58 • • • Preparation of anhydrous aluminium chloride **[1, 2006.01]**
7/60 • • • • from oxygen-containing aluminium compounds **[1, 2006.01]**
7/62 • • • Purification **[1, 2006.01]**
7/64 • • Bromides (containing fluorine C01F 7/52) **[1, 3, 2006.01]**
7/66 • Aluminium nitrates (containing fluorine C01F 7/52) **[1, 3, 2006.01]**
7/68 • Aluminium compounds containing sulfur (containing fluorine C01F 7/52) **[1, 3, 2006.01]**
7/70 • • Sulfides **[1, 2006.01]**
7/72 • • Sulfites **[1, 2006.01]**
7/74 • • Sulfates **[1, 2006.01]**
7/76 • • • Double salts, e.g. alums **[1, 2006.01]**

11/00 Compounds of calcium, strontium, or barium (C01F 7/00 takes precedence) **[1, 3, 2006.01]**
11/02 • Oxides or hydroxides (production of lime C04B 2/00) **[1, 2006.01]**
11/04 • • by thermal decomposition **[1, 2006.01]**
11/06 • • • of carbonates **[1, 2006.01]**
11/08 • • by reduction of sulfates **[1, 2006.01]**
11/10 • • from sulfides **[1, 2006.01]**
11/12 • • from silicates **[1, 2006.01]**
11/16 • • Purification **[1, 2006.01]**
11/18 • Carbonates **[1, 2006.01]**
11/20 • Halides **[1, 2006.01]**
11/22 • • Fluorides **[1, 2006.01]**
11/24 • • Chlorides **[1, 2006.01]**
11/26 • • • from sulfides **[1, 2006.01]**
11/28 • • • by chlorination of alkaline earth metal compounds **[1, 2006.01]**
11/30 • • • Concentrating; Dehydrating; Preventing the absorption of moisture or caking **[1, 2006.01]**
11/32 • • • Purification **[1, 2006.01]**
11/34 • • Bromides **[1, 2006.01]**
11/36 • Nitrates **[1, 2006.01]**
11/38 • • Preparation with nitric acid or nitrogen oxides **[1, 2006.01]**
11/40 • • Preparation by double decomposition with nitrates **[1, 2006.01]**
11/42 • • Double salts (with magnesium C01F 5/38) **[1, 2006.01]**
11/44 • • Concentrating; Crystallising; Dehydrating; Preventing the absorption of moisture or caking **[1, 2006.01]**
11/46 • Sulfates (dehydration of gypsum C04B 11/02) **[1, 2006.01]**
11/48 • Sulfites **[1, 2006.01]**

13/00 Compounds of radium [1, 2006.01]

15/00 Compounds of thorium [1, 2006.01]

17/00 Compounds of the rare-earth metals, i.e. scandium, yttrium, lanthanum, or the group of the lanthanides [1, 2006.01]