

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]

- 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.
- 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]	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]
3/00	Compounds of beryllium [1, 2006.01]	5/42	• Magnesium sulfites [1, 2006.01]
3/02	• Oxides; Hydroxides [3, 2006.01]		
5/00	Compounds of magnesium [1, 2006.01]	7/00	Compounds of aluminium [1, 2006.01]
5/02	• Magnesia [1, 2006.01]	7/02	• Aluminium oxide; Aluminium hydroxide; Aluminates [1, 2006.01]
5/04	• • by oxidation of metallic magnesium [1, 2006.01]	7/04	• • Preparation of alkali metal aluminates; Aluminium oxide or hydroxide therefrom [1, 2006.01]
5/06	• • by thermal decomposition of magnesium compounds (calcining magnesite or dolomite C04B 2/10) [1, 2006.01]	7/06	• • • by treating aluminous minerals with alkali hydroxide [1, 2006.01]
5/08	• • • by calcining magnesium hydroxide [1, 2006.01]	7/08	• • • by treating aluminous minerals with sodium carbonate [1, 2006.01]
5/10	• • • by thermal decomposition of magnesium chloride with water vapour [1, 2006.01]	7/10	• • • by treating aluminous minerals with alkali sulfates and reducing agents [1, 2006.01]
5/12	• • • by thermal decomposition of magnesium sulfate, with or without reduction [1, 2006.01]	7/12	• • • Alkali metal aluminates from alkaline earth metal aluminates [1, 2006.01]
5/14	• Magnesium hydroxide [1, 2006.01]	7/14	• • • Aluminium oxide or hydroxide from alkali metal aluminates [1, 2006.01]
5/16	• • by treating magnesia, e.g. calcined dolomite, with water or solutions of salts not containing magnesium [1, 2006.01]	7/16	• • Preparation of alkaline earth metal aluminates; Aluminium oxide or hydroxide therefrom [1, 2006.01]
5/20	• • by precipitation from solutions of magnesium salts with ammonia [1, 2006.01]	7/18	• • • Aluminium oxide or hydroxide from alkaline earth metal aluminates [1, 2006.01]
5/22	• • from magnesium compounds with alkali hydroxides or alkaline earth oxides or hydroxides [1, 2006.01]	7/20	• • Preparation of aluminium oxide or hydroxide from aluminous ores with acids or salts [1, 2006.01]
5/24	• Magnesium carbonates [1, 2006.01]	7/22	• • • with halides [1, 2006.01]
5/26	• Magnesium halides [1, 2006.01]	7/24	• • • with nitric acid or nitrogen oxides [1, 2006.01]
5/28	• • Fluorides [1, 2006.01]	7/26	• • • with sulfuric acids or sulfates [1, 2006.01]
5/30	• • Chlorides [1, 2006.01]	7/28	• • • with sulfurous acid [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]		

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- 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]**