

# CPC COOPERATIVE PATENT CLASSIFICATION

## C CHEMISTRY; METALLURGY

(NOTES omitted)

### CHEMISTRY

**C01 INORGANIC CHEMISTRY** (processing powders of inorganic compounds preparatory to the manufacturing of ceramic products [C04B 35/00](#); 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 [C21B](#), [C22B](#); production of non-metallic elements or inorganic compounds by electrolysis or electrophoresis [C25B](#))

(NOTES omitted)

## C01P INDEXING SCHEME RELATING TO STRUCTURAL AND PHYSICAL ASPECTS OF SOLID INORGANIC COMPOUNDS

### NOTES

1. This subclass constitutes an internal scheme for indexing only.
2. The indexing scheme is used to identify structural and physical aspects of solid inorganic compounds, already classified in class [C01](#) or subclass [C09C](#).

<b>2002/00</b>	<b>Crystal-structural characteristics</b>	<b>2002/87</b>	. . by chromatography data, e.g. HPLC, gas chromatography
2002/01	. depicted by a TEM-image	2002/88	. . by thermal analysis data, e.g. TGA, DTA, DSC
2002/02	. Amorphous compounds	2002/89	. . by mass-spectroscopy
2002/04	. Compounds with a limited amount of crystallinity, e.g. as indicated by a crystallinity index	2002/90	. Other crystal-structural characteristics not specified above
2002/08	. Intercalated structures, i.e. with atoms or molecules intercalated in their structure	<b>2004/00</b>	<b>Particle morphology</b>
2002/10	. One-dimensional structures	2004/01	. depicted by an image
2002/20	. Two-dimensional structures	2004/02	. . obtained by optical microscopy
2002/22	. . layered hydroxide-type, e.g. of the hydrotalcite-type	2004/03	. . obtained by SEM
2002/30	. Three-dimensional structures	2004/04	. . obtained by TEM, STEM, STM or AFM
2002/32	. . spinel-type ( $AB_2O_4$ )	2004/10	. extending in one dimension, e.g. needle-like
2002/34	. . perovskite-type ( $ABO_3$ )	2004/11	. . with a prismatic shape
2002/36	. . pyrochlore-type ( $A_2B_2O_7$ )	2004/12	. . with a cylindrical shape
2002/50	. Solid solutions	2004/13	. . Nanotubes
2002/52	. . containing elements as dopants	2004/133	. . . Multiwall nanotubes
2002/54	. . . one element only	2004/136	. . . Nanoscrolls, i.e. tubes having a spiral section
2002/60	. Compounds characterised by their crystallite size	2004/16	. . Nanowires or nanorods, i.e. solid nanofibres with two nearly equal dimensions between 1-100 nanometer
2002/70	. defined by measured X-ray, neutron or electron diffraction data	2004/17	. . Nanostrips, nanoribbons or nanobelts, i.e. solid nanofibres with two significantly differing dimensions between 1-100 nanometer
2002/72	. . by d-values or two theta-values, e.g. as X-ray diagram	2004/20	. extending in two dimensions, e.g. plate-like
2002/74	. . by peak-intensities or a ratio thereof only	2004/22	. . with a polygonal circumferential shape
2002/76	. . by a space-group or by other symmetry indications	2004/24	. . Nanoplates, i.e. plate-like particles with a thickness from 1-100 nanometer
2002/77	. . by unit-cell parameters, atom positions or structure diagrams	2004/30	. extending in three dimensions
2002/78	. . by stacking-plane distances or stacking sequences	2004/32	. . Spheres
2002/80	. defined by measured data other than those specified in group <a href="#">C01P 2002/70</a>	2004/34	. . . hollow
2002/82	. . by IR- or Raman-data	2004/36	. . . fragmented
2002/84	. . by UV- or VIS- data	2004/38	. . cube-like
2002/85	. . by XPS, EDX or EDAX data	2004/39	. . parallelepiped-like
2002/86	. . by NMR- or ESR-data	2004/40	. . prism-like

2004/41	. . octahedron-like	2006/88	. Isotope composition differing from the natural occurrence
2004/42	. . (bi)pyramid-like	2006/90	. Other properties not specified above
2004/45	. . Aggregated particles or particles with an intergrown morphology		
2004/50	. Agglomerated particles		
2004/51	. Particles with a specific particle size distribution		
2004/52	. . highly monodisperse size distribution		
2004/53	. . bimodal size distribution		
2004/54	. Particles characterised by their aspect ratio, i.e. the ratio of sizes in the longest to the shortest dimension		
2004/60	. Particles characterised by their size		
2004/61	. . Micrometer sized, i.e. from 1-100 micrometer		
2004/62	. . Submicrometer sized, i.e. from 0.1-1 micrometer		
2004/64	. . Nanometer sized, i.e. from 1-100 nanometer		
2004/80	. Particles consisting of a mixture of two or more inorganic phases		
2004/82	. . two phases having the same anion, e.g. both oxidic phases		
2004/84	. . . one phase coated with the other		
2004/86	. . . Thin layer coatings, i.e. the coating thickness being less than 0.1 time the particle radius		
2004/88	. . . Thick layer coatings		
2004/90	. Other morphology not specified above		

#### 2006/00 Physical properties of inorganic compounds

##### NOTES

1. Compounds having molecular sieve properties are classified in [C01B 37/00](#), [C01B 39/00](#).
2. The following codes are only to be used for physical values deviating significantly from the average usual values.

2006/10	. Solid density
2006/11	. Powder tap density
2006/12	. Surface area
2006/13	. . thermal stability thereof at high temperatures
2006/14	. Pore volume
2006/16	. Pore diameter
2006/17	. . Pore diameter distribution
2006/19	. Oil-absorption capacity, e.g. DBP values
2006/20	. Powder free flowing behaviour
2006/21	. Attrition-index or crushing strength of granulates
2006/22	. Rheological behaviour as dispersion, e.g. viscosity, sedimentation stability
2006/32	. Thermal properties
2006/33	. . Phase transition temperatures
2006/34	. . . Melting temperatures
2006/35	. . . Boiling temperatures
2006/36	. . . Solid to solid transition temperatures
2006/37	. . Stability against thermal decomposition
2006/40	. Electric properties
2006/42	. Magnetic properties
2006/44	. Alpha, beta or gamma radiation related properties
2006/60	. Optical properties, e.g. expressed in CIELAB-values
2006/62	. . L* (lightness axis)
2006/63	. . a* (red-green axis)
2006/64	. . b* (yellow-blue axis)
2006/65	. . Chroma (C*)
2006/66	. . Hue (H*)
2006/80	. Compositional purity
2006/82	. . water content