

# CPC COOPERATIVE PATENT CLASSIFICATION

## C CHEMISTRY; METALLURGY

(NOTES omitted)

### CHEMISTRY

#### C01 INORGANIC CHEMISTRY

(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>2004/00</b>	<b>Particle morphology</b>
2002/01	. depicted by a TEM-image	2004/01	. depicted by an image
2002/02	. Amorphous compounds	2004/02	. . obtained by optical microscopy
2002/04	. Compounds with a limited amount of crystallinity, e.g. as indicated by a crystallinity index	2004/03	. . obtained by SEM
2002/08	. Intercalated structures, i.e. with atoms or molecules intercalated in their structure	2004/04	. . obtained by TEM, STEM, STM or AFM
2002/10	. One-dimensional structures	2004/10	. extending in one dimension, e.g. needle-like
2002/20	. Two-dimensional structures	2004/11	. . with a prismatic shape
2002/22	. . layered hydroxide-type, e.g. of the hydrotalcite-type	2004/12	. . with a cylindrical shape
2002/30	. Three-dimensional structures	2004/13	. . Nanotubes
2002/32	. . spinel-type ( $AB_2O_4$ )	2004/133	. . . Multiwall nanotubes
2002/34	. . perovskite-type ( $ABO_3$ )	2004/136	. . . Nanoscrolls, i.e. tubes having a spiral section
2002/36	. . pyrochlore-type ( $A_2B_2O_7$ )	2004/16	. . Nanowires or nanorods, i.e. solid nanofibres with two nearly equal dimensions between 1-100 nanometer
2002/50	. Solid solutions	2004/17	. . Nanostrips, nanoribbons or nanobelts, i.e. solid nanofibres with two significantly differing dimensions between 1-100 nanometer
2002/52	. . containing elements as dopants	2004/20	. extending in two dimensions, e.g. plate-like
2002/54	. . . one element only	2004/22	. . with a polygonal circumferential shape
2002/60	. Compounds characterised by their crystallite size	2004/24	. . Nanoplates, i.e. plate-like particles with a thickness from 1-100 nanometer
2002/70	. defined by measured X-ray, neutron or electron diffraction data	2004/30	. extending in three dimensions
2002/72	. . by d-values or two theta-values, e.g. as X-ray diagram	2004/32	. . Spheres
2002/74	. . by peak-intensities or a ratio thereof only	2004/34	. . . hollow
2002/76	. . by a space-group or by other symmetry indications	2004/36	. . . fragmented
2002/77	. . by unit-cell parameters, atom positions or structure diagrams	2004/38	. . cube-like
2002/78	. . by stacking-plane distances or stacking sequences	2004/39	. . parallelepiped-like
2002/80	. defined by measured data other than those specified in group <a href="#">C01P 2002/70</a>	2004/40	. . prism-like
2002/82	. . by IR- or Raman-data	2004/41	. . octahedron-like
2002/84	. . by UV- or VIS- data	2004/42	. . (bi)pyramid-like
2002/85	. . by XPS, EDX or EDAX data	2004/45	. . Aggregated particles or particles with an intergrown morphology
2002/86	. . by NMR- or ESR-data	2004/50	. Agglomerated particles
2002/87	. . by chromatography data, e.g. HPLC, gas chromatography	2004/51	. Particles with a specific particle size distribution
2002/88	. . by thermal analysis data, e.g. TGA, DTA, DSC	2004/52	. . highly monodisperse size distribution
2002/89	. . by mass-spectroscopy	2004/53	. . bimodal size distribution
2002/90	. Other crystal-structural characteristics not specified above	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

## C01P

- 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
- 2006/88 . Isotope composition differing from the natural occurrence
- 2006/90 . Other properties not specified above