SECTION B — PERFORMING OPERATIONS; TRANSPORTING

B82   NANO-TECHNOLOGY

Note(s) [2011.01]

In this class, the following terms are used with the meaning indicated:
- "nano-size" or "nano-scale" relate to a controlled geometrical size below 100 nanometres (nm) in one or more dimensions;
- "nano-structure" means an entity having at least one nano-sized functional component that makes physical, chemical or biological properties or effects available, which are uniquely attributable to the nano-scale.

B82B   NANO-STRUCTURES FORMED BY MANIPULATION OF INDIVIDUAL ATOMS, MOLECULES, OR LIMITED COLLECTIONS OF ATOMS OR MOLECULES AS DISCRETE UNITS; MANUFACTURE OR TREATMENT THEREOF [7]

Note(s)

1. This subclass does not cover chemical or biological nano-structures per se, provided for elsewhere, e.g., in classes C08 or C12.
2. Attention is drawn to the Note following the title of class B82, which defines the meaning of the terms "nano-size", "nano-scale" and "nano-structure" in this subclass.
3. Subject matter classified in this subclass is further classified in subclass B82Y, in order to enable a comprehensive search of nano-structure technology using classification symbols of B82Y in combination with classification symbols of B82B.
4. Nano-structures having specialised features or functions are further classified in appropriate places in other subclasses that provide for those features or functions, e.g. in G01Q , G02F 1/017, H01L 29/775.

1/00	**Nano-structures formed by manipulation of individual atoms or molecules, or limited collections of atoms or molecules as discrete units [7]**	**3/00**	**Manufacture or treatment of nano-structures by manipulation of individual atoms or molecules, or limited collections of atoms or molecules as discrete units [7]**

B82Y   SPECIFIC USES OR APPLICATIONS OF NANO-STRUCTURES; MEASUREMENT OR ANALYSIS OF NANO-STRUCTURES; MANUFACTURE OR TREATMENT OF NANO-STRUCTURES [2011.01]

Note(s) [2011.01]

1. This subclass covers applications and aspects of nano-structures which are produced by any method, and is not restricted to those that are formed by manipulation of individual atoms or molecules.
2. Attention is drawn to the Note following the title of class B82, which defines the meaning of the terms "nano-size", "nano-scale" and "nano-structure" in this subclass.
3. This subclass is intended to enable a comprehensive search of subject matter related to nano-structures by combination of classification symbols of this subclass with classification symbols from other subclasses. Therefore this subclass covers aspects of nano-structures that might also be entirely or partially covered elsewhere in the IPC.
4. This subclass is for obligatory supplementary classification of subject matter already classified as such in other classification places, e.g.:
    - B82B..Nano-structures formed by individual manipulation of atoms, molecules, or limited collections of atoms or molecules as discrete units; manufacture or treatment thereof
    - A61K 9/51................................Nano-capsules for medicinal preparations
    - B05D 1/20.................................Langmuir-Blodgett films
    - C01B 31/02..............................Carbon nano-structures, e.g. bucky-balls, nanotubes, nanocoils, nano-doughnuts or nano-onions
    - G01Q.......................................Scanning probe techniques
    - G02F 1/017..............................Optical quantum wells or boxes
    - H01F 10/32..............................Nano-structured thin magnetic films
    - H01F 41/30..............................Molecular beam epitaxy [MBE]
    - H01L 29/775............................Quantum wire FETs
5. The classification symbols of this subclass are not listed first when assigned to patent documents.
6. In this subclass, multi-aspects classification is applied, so that aspects of subject matter that are covered by more than one of its groups should be classified in each of those groups.

5/00	**Nano-biotechnology or nano-medicine, e.g. protein engineering or drug delivery [2011.01]**	**10/00**	**Nano-technology for information processing, storage**

or transmission, e.g. quantum computing or single electron logic [2011.01]

15/00 Nano-technology for interacting, sensing or actuating, e.g. quantum dots as markers in protein assays or molecular motors [2011.01]

20/00 Nano-optics, e.g. quantum optics or photonic crystals [2011.01]

25/00 Nano-magnetism, e.g. magnetoimpedance, anisotropic magnetoresistance, giant magnetoresistance or tunneling magnetoresistance [2011.01]

30/00 Nano-technology for materials or surface science, e.g. nano-composites [2011.01]

35/00 Methods or apparatus for measurement or analysis of nano-structures [2011.01]

40/00 Manufacture or treatment of nano-structures [2011.01]

99/00 Subject matter not provided for in other groups of this subclass [2011.01]