

## SECTION C — CHEMISTRY; METALLURGY

## C40 COMBINATORIAL TECHNOLOGY

C40B COMBINATORIAL CHEMISTRY; LIBRARIES, e.g. CHEMICAL LIBRARIES, IN SILICO LIBRARIES [2006.01]**Note(s) [2006.01]**

1. In this subclass, the first place priority rule is applied, i.e. at each hierarchical level, classification is made in the first appropriate place.
2. When classifying in this subclass, subject matter of interest is also classified in other appropriate places:
  - a. library members are also classified in the appropriate places elsewhere in the IPC (e.g. in section C) according to established procedure relating to "Markush"-type formulae (see paragraphs 100 and 101 of the Guide);
  - b. methods or apparatus covered by this subclass are also classified for their biological, chemical, physical or other features in the appropriate places in the IPC, if such features are of interest, e.g.
    - A01N.....Biocides
    - A61K.....Preparations for medical, dental or toilet purposes
    - A61P.....Therapeutic activity of compounds
    - B01D.....Separation
    - B01J.....Chemical or physical processes, e.g. catalysis; Apparatus therefor
    - B01L.....Chemical or physical laboratory apparatus
    - B29.....Shaped plastics
    - C01, C07, C08.....Inorganic, organic or organic macromolecular compounds; Methods of preparation or separation thereof
    - C12.....Biochemistry, microbiology, enzymology including micro-organisms or enzymes, preparing them, using them to synthesise compounds or compositions; Measuring or testing processes involving micro-organisms or enzymes; Mutation or genetic engineering
    - C22.....Metal alloys
    - G01N.....Chemical or physical analysis
    - G01R, G01T.....Physical measurements methods; Apparatus therefor
    - G03F.....Photomechanical methods
    - G06F.....Electrical digital data processing
    - G06K.....Data processing
    - G06T.....Image data processing
    - G09F.....Displaying; Advertising

**10/00 Directed molecular evolution of macromolecules, e.g. RNA, DNA or proteins [2006.01]**

**20/00 Methods specially adapted for identifying library members [2006.01]**

- 20/02 • Identifying library members by their fixed physical location on a support or substrate [2006.01]
- 20/04 • Identifying library members by means of a tag, label, or other readable or detectable entity associated with the library members, e.g. decoding processes [2006.01]
- 20/06 • using iterative deconvolution techniques [2006.01]
- 20/08 • Direct analysis of the library members per se by physical methods, e.g. spectroscopy [2006.01]

**30/00 Methods of screening libraries [2006.01]**

- 30/02 • In silico screening [2006.01]
- 30/04 • by measuring the ability to specifically bind a target molecule, e.g. antibody-antigen binding, receptor-ligand binding [2006.01]
- 30/06 • by measuring effects on living organisms, tissues or cells [2006.01]
- 30/08 • by measuring catalytic activity [2006.01]
- 30/10 • by measuring physical properties, e.g. mass [2006.01]

**40/00 Libraries per se, e.g. arrays, mixtures [2006.01]**

- 40/02 • Libraries contained in or displayed by micro-organisms, e.g. bacteria or animal cells; Libraries contained in or displayed by vectors, e.g. plasmids; Libraries containing only micro-organisms or vectors [2006.01]
- 40/04 • Libraries containing only organic compounds [2006.01]

**Note(s) [2006.01]**

Libraries containing salts of organic compounds are classified in the groups for the libraries containing the parent compounds

- 40/06 • • Libraries containing nucleotides or polynucleotides, or derivatives thereof [2006.01]
- 40/08 • • • Libraries containing RNA or DNA which encodes proteins, e.g. gene libraries [2006.01]
- 40/10 • • Libraries containing peptides or polypeptides, or derivatives thereof [2006.01]
- 40/12 • • Libraries containing saccharides or polysaccharides, or derivatives thereof [2006.01]
- 40/14 • • Libraries containing macromolecular compounds and not covered by groups C40B 40/06-C40B 40/12 [2006.01]
- 40/16 • • Libraries containing metal-containing organic compounds [2006.01]

- 40/18 • Libraries containing only inorganic compounds or inorganic materials [2006.01]

**50/00 Methods of creating libraries, e.g. combinatorial synthesis [2006.01]**

- 50/02 • In silico or mathematical conception of libraries [2006.01]
- 50/04 • using dynamic combinatorial chemistry techniques [2006.01]
- 50/06 • Biochemical methods, e.g. using enzymes or whole viable micro-organisms [2006.01]
- 50/08 • Liquid phase synthesis, i.e. wherein all library building blocks are in liquid phase or in solution during library creation; Particular methods of cleavage from the liquid support [2006.01]
- 50/10 • • involving encoding steps [2006.01]
- 50/12 • • using a particular method of attachment to the liquid support [2006.01]
- 50/14 • Solid phase synthesis, i.e. wherein one or more library building blocks are bound to a solid support during library creation; Particular methods of cleavage from the solid support [2006.01]
- 50/16 • • involving encoding steps [2006.01]
- 50/18 • • using a particular method of attachment to the solid support [2006.01]

**60/00 Apparatus specially adapted for use in combinatorial chemistry or with libraries [2006.01]**

- 60/02 • Integrated apparatus specially adapted for creating libraries, screening libraries and for identifying library members [2006.01]
- 60/04 • Integrated apparatus specially adapted for both screening libraries and identifying library members [2006.01]
- 60/06 • Integrated apparatus specially adapted for both creating libraries and identifying library members [2006.01]
- 60/08 • Integrated apparatus specially adapted for both creating and screening libraries [2006.01]
- 60/10 • for identifying library members [2006.01]
- 60/12 • for screening libraries [2006.01]
- 60/14 • for creating libraries [2006.01]

**70/00 Tags or labels specially adapted for combinatorial chemistry or libraries, e.g. fluorescent tags or bar codes [2006.01]**

**80/00 Linkers or spacers specially adapted for combinatorial chemistry or libraries, e.g. traceless linkers or safety-catch linkers [2006.01]**

**99/00 Subject matter not provided for in other groups of this subclass [2006.01]**