

**CPC****COOPERATIVE PATENT CLASSIFICATION****C40B****COMBINATORIAL CHEMISTRY ; LIBRARIES, e.g. CHEMICAL LIBRARIES, IN SILICO LIBRARIES****NOTE**

In this subclass, the first place priority rule is applied, i.e. at each hierarchical level, classification is made in the first appropriate place.

When classifying in this subclass, subject matter of interest is also classified in other appropriate places:

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 paragraph 101 of the Guide);

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 synthesis 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 thereof

[G03F](#) Photomechanical methods

[G06F](#) Electrical digital data processing

[G06K](#) Data processing

[G06T](#) Image data processing

[G09F](#) Displaying; Advertising

**Guidance heading:****C40B 10/00**

**Directed molecular evolution of macromolecules, e.g. RNA, DNA or proteins**

**C40B 20/00**

**Methods specially adapted for identifying library members**

**C40B 20/02**

. Identifying library members by their fixed physical location on a support or substrate

- C40B 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
- C40B 20/06 . using iterative deconvolution techniques
- C40B 20/08 . Direct analysis of the library members per se by physical methods, e.g. spectroscopy

#### **C40B 30/00      Methods of screening libraries**

- C40B 30/02 . In silico screening
- C40B 30/04 . by measuring the ability to specifically bind a target molecule, e.g. antibody-antigen binding, receptor-ligand binding
- C40B 30/06 . by measuring effects on living organisms, tissues or cells
- C40B 30/08 . by measuring catalytic activity
- C40B 30/10 . by measuring physical properties, e.g. mass

#### **C40B 40/00      Libraries per se, e.g. arrays, mixtures**

- C40B 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
- C40B 40/04 . Libraries containing only organic compounds

#### **NOTE**

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

- C40B 40/06 . . Libraries containing nucleotides or polynucleotides, or derivatives thereof
- C40B 40/08 . . . Libraries containing RNA or DNA which encodes proteins, e.g. gene libraries
- C40B 40/10 . . Libraries containing peptides or polypeptides, or derivatives thereof
- C40B 40/12 . . Libraries containing saccharides or polysaccharides, or derivatives thereof
- C40B 40/14 . . Libraries containing macromolecular compounds and not covered by groups [C40B 40/06](#) to [C40B 40/12](#)
- C40B 40/16 . . Libraries containing metal-containing organic compounds
- C40B 40/18 . Libraries containing only inorganic compounds or inorganic materials

#### **C40B 50/00      Methods of creating libraries, e.g. combinatorial synthesis**

- C40B 50/02 . In silico or mathematical conception of libraries
- C40B 50/04 . using dynamic combinatorial chemistry techniques
- C40B 50/06 . Biochemical methods, e.g. using enzymes or whole viable micro-organisms

C40B 50/08	<ul style="list-style-type: none"> <li>· 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</li> </ul>
C40B 50/10	<ul style="list-style-type: none"> <li>· · involving encoding steps</li> </ul>
C40B 50/12	<ul style="list-style-type: none"> <li>· · using a particular method of attachment to the liquid support</li> </ul>
C40B 50/14	<ul style="list-style-type: none"> <li>· 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</li> </ul>
C40B 50/16	<ul style="list-style-type: none"> <li>· · involving encoding steps</li> </ul>
C40B 50/18	<ul style="list-style-type: none"> <li>· · using a particular method of attachment to the solid support</li> </ul>
<b>C40B 60/00</b>	<b>Apparatus specially adapted for use in combinatorial chemistry or with libraries</b>
C40B 60/02	<ul style="list-style-type: none"> <li>· Integrated apparatus specially adapted for creating libraries, screening libraries and for identifying library members</li> </ul>
C40B 60/04	<ul style="list-style-type: none"> <li>· Integrated apparatus specially adapted for both screening libraries and identifying library members</li> </ul>
C40B 60/06	<ul style="list-style-type: none"> <li>· Integrated apparatus specially adapted for both creating libraries and identifying library members</li> </ul>
C40B 60/08	<ul style="list-style-type: none"> <li>· Integrated apparatus specially adapted for both creating and screening libraries</li> </ul>
C40B 60/10	<ul style="list-style-type: none"> <li>· For identifying library members</li> </ul>
C40B 60/12	<ul style="list-style-type: none"> <li>· For screening libraries</li> </ul>
C40B 60/14	<ul style="list-style-type: none"> <li>· For creating libraries</li> </ul>
<b>C40B 70/00</b>	<b>Tags or labels specially adapted for combinatorial chemistry or libraries, e.g. fluorescent tags or bar codes</b>
<b>C40B 80/00</b>	<b>Linkers or spacers specially adapted for combinatorial chemistry or libraries, e.g. traceless linkers or safety-catch linkers</b>
<b>C40B 99/00</b>	<b>Subject matter not provided for in other groups of this subclass</b>