

- 1 **DIRECTED MOLECULAR EVOLUTION OF**
 MACROMOLECULES (E.G., RNA,
 DNA, PROTEINS, ETC.)
- 2 **METHOD SPECIALLY ADAPTED FOR**
 IDENTIFYING A LIBRARY MEMBER
- 3 . Identifying a library member by
 its fixed physical location on
 a support or substrate
- 4 . Identifying a library member by
 means of a tag, label, or
 other readable or detectable
 entity associated with the
 library member (e.g., decoding
 process, etc.)
- 5 . Using an iterative deconvolution
 technique
- 6 . Direct analysis of a library
 member, per se, by a physical
 method (e.g., spectroscopy,
 etc.)
- 7 **METHOD OF SCREENING A LIBRARY**
- 8 . In silico screening
- 9 . By measuring the ability to
 specifically bind a target
 molecule (e.g., antibody-
 antigen binding, receptor-
 ligand binding, etc.)
- 10 . By measuring the effect on a
 living organism, tissue, or
 cell
- 11 . By measuring catalytic activity
- 12 . By measuring a physical property
 (e.g., mass, etc.)
- 13 **LIBRARY, PER SE (E.G., ARRAY,**
 MIXTURE, IN SILICO, ETC.)
- 14 . Library contained in or
 displayed by a micro-organism
 (e.g., bacteria, animal cell,
 etc.) or library contained in
 or displayed by a vector
 (e.g., plasmid, etc.) or
 library containing only micro-
 organisms or vectors
- 15 . Library containing only organic
 compounds
- 16 .. Nucleotides or polynucleotides,
 or derivatives thereof
- 17 .. RNA or DNA which encodes
 proteins (e.g., gene library,
 etc.)
- 18 .. Peptides or polypeptides, or
 derivatives thereof
- 19 .. Saccharides or polysaccharides,
 or derivatives thereof
- 20 .. Macromolecular compounds (e.g.,
 synthetic resin, rubber, etc.)
- 21 .. Metal-containing organic
 compounds
- 22 . Library containing only
 inorganic compounds or
 inorganic materials
- 23 **METHOD OF CREATING A LIBRARY**
 (E.G., COMBINATORIAL
 SYNTHESIS, ETC.)
- 24 . In silico or mathematical
 conception of a library
- 25 . Using a dynamic combinatorial
 chemistry technique
- 26 . Biochemical method (e.g., using
 an enzyme or whole viable
 micro-organism, etc.)
- 27 . Liquid-phase synthesis (i.e.,
 wherein all library building
 blocks are in liquid phase or
 in solution during library
 creation) or particular method
 of cleavage from the liquid
 support used
- 28 .. Involving an encoding step
- 29 .. Using a particular method of
 attachment to the liquid
 support
- 30 . Solid-phase synthesis (i.e.,
 wherein one or more library
 building blocks are bound to a
 solid support during library
 creation) or particular method
 of cleavage from the solid
 support used
- 31 .. Involving an encoding step
- 32 .. Using a particular method of
 attachment to the solid
 support
- 33 **APPARATUS SPECIALLY ADAPTED FOR**
 USE IN COMBINATORIAL CHEMISTRY
 OR WITH A LIBRARY
- 34 . Integrated apparatus specially
 adapted for creating a
 library, screening a library,
 and identifying a library
 member
- 35 . Integrated apparatus specially
 adapted for both screening a
 library and identifying a
 library member

- 36 .Integrated apparatus specially adapted for both creating a library and identifying a library member
- 37 .Integrated apparatus specially adapted for both creating and screening a library
- 38 .For identifying a library member
- 39 .For screening a library
- 40 .For creating a library
- 41 **TAG OR LABEL SPECIALLY ADAPTED FOR COMBINATORIAL CHEMISTRY OR A LIBRARY (E.G., FLUORESCENT TAG, BAR CODE, ETC.)**
- 42 **LINK OR SPACER SPECIALLY ADAPTED FOR COMBINATORIAL CHEMISTRY OR A LIBRARY (E.G., TRACELESS LINKER, SAFETY-CATCH LINKER, ETC.)**
- 43 **MISCELLANEOUS**