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# Combinatorial Synthesis

National Cancer Institute

## Source

National Cancer Institute. *Combinatorial Synthesis*. NCI Thesaurus. Code C19321.

Technique for making and testing many complex materials in parallel: computer guided synthesis in which all possible combinations are made. Combinatorial synthesis is not random, but systematic and repetitive, using sets of chemical "building blocks" to form a diverse set of molecular entities. Initial synthesis is usually made on a solid substrate. The technique lays down the materials in a checkerboard arrangement, as thin squares arranged in a grid. Scientists use combinatorial chemistry to create large populations of molecules, or libraries, that can be screened efficiently en masse.