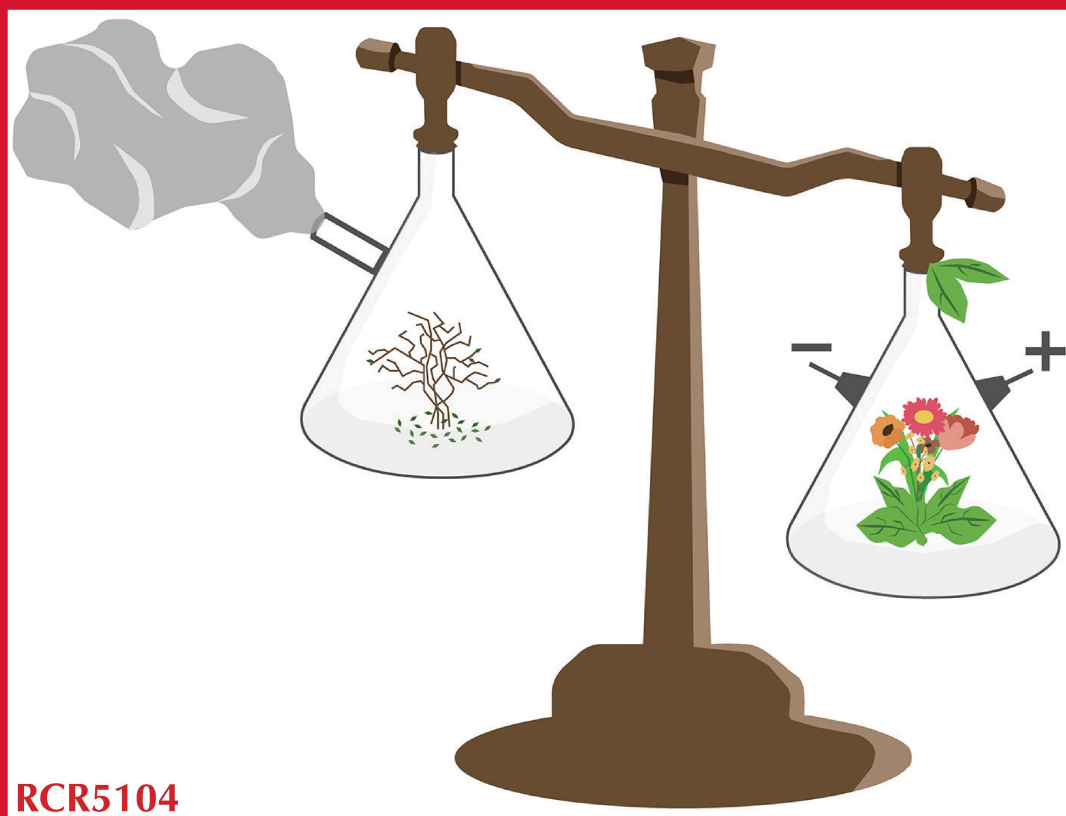




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Contents

The green chemistry paradigm in modern organic synthesis

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After the appearance of the green chemistry concept, which was introduced in the chemistry vocabulary in the early 1990s, its main statements have been continuously developed and modified. Currently, there are 10–12 cornerstones that should form the basis for an ideal chemical process. This review analyzes the accumulated experience and achievements towards the design of chemical products and processes that reduce or eliminate the use of generation of hazardous substances. The review presents the views of leading Russian professionals specializing in various fields of this subject, including homogeneous and heterogeneous catalysis, fine and basic organic synthesis, electrochemistry, polymer chemistry, chemistry based on bio-renewable feedstocks and chemistry of energetic compounds and materials. A new approach to the quantitative evaluation of the environmental friendliness of processes developed by Russian authors is described.

Bibliography — 1761 references.