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Dynamic ‘cocktail’-type catalytic systems in C–N bond formation reactions **RCR5181**

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Catalytic C – N bond formation reactions play a crucial role in fine organic synthesis, as they are used to prepare biologically active compounds and natural products. The recent advances in the modern theory of catalytic processes, particularly development of the concept of dynamic catalysis, necessitate a re-evaluation and systematization of the vast experimental data accumulated in this field. This review provides analysis of C–N bond formation reactions from the perspective of contemporary catalytic concepts. Considerable attention is paid to catalyst transformations resulting in the formation of ‘cocktail’-type systems and ways to control these processes. Understanding of these mechanisms is essential for the design of efficient catalytic systems applicable to cross-coupling reactions and other key synthetic reactions.
Bibliography — 132 references.