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3.2.2 Chemical and Electrochemical Potentials: Energy of Transmembrane Transport and Metabolic Reactions3.2.3 Non-equilibrium, Steady-state Conditions; 3.2.4 Free Energy Changes and the Problem of Intracellular Organization of Metabolism; 3.2.5 Macromolecular Crowding, Heterogeneity of Diffusion, Compartmentation, and Vectorial Metabolism; 3.2.5.1 Heterogeneity of Intracellular Diffusion and Metabolic Channeling; 3.2.5.2 Compartmentation Phenomenon and Vectorial Metabolism; 3.3 Compartmentalized Energy Transfer and Metabolic Sensing
3.3.1 Compartmentation of Adenine Nucleotides in Cardiac Cells

Sommario/riassunto

In this first integrated view, practically each of the world's leading experts has contributed to this one and only authoritative resource on the topic. Bringing systems biology to cellular energetics, they address in detail such novel concepts as metabolite channeling and medical aspects of metabolic syndrome and cancer.