

L. F. Olsen, U. Kummer, A. K. Green, C. J. Dixon, M. J. B. Hauser: Dynamics and Information Processing in Biochemical Pathways
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1999, p. 123 - 134.

Abstract:

The dynamics of enzyme catalyzed reactions and biochemical reaction systems have received growing attention in the last few years. We introduce the variety of dynamical behaviours which are found in a single enzyme reaction, the peroxidase-oxidase reaction and the dynamical behaviours of a biochemical pathway involving receptors, enzymes, ion channels and pumps: the calcium signalling pathway. We discuss the importance and the implications of dynamic behaviour for the understanding of the functioning of biochemical networks in the cell.