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ON THE VALUES AT EQUILIBRIUM AND RATE CONSTANTS IN INTER – CONVERSION PROCESSES

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Inter - conversion processes of labile molecules obey similar rules to those of reversible chemical reactions. The aim of the present mini – review paper is to apply mathematical analysis and algebra in determining the optimal values at equilibrium, and remarkable particular rate constants as well. We use increasing velocity in order to obtain such results. To this aim, one applies Schwarz inequality and the case when equality occurs. The optimal solutions are written explicitly.

In order to determine significant rate constants, we characterize these special values in terms of the norm of the linear operator defined by the matrix of the differential system which models the process. Under suitable conditions, the values at equilibrium and the rate constants are equal. The common value at equilibrium equals the common value of the rate constants.

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