Diauxic behaviour for biological processes at various timescales.

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Abstract

In the present paper we provide the conditions guaranteeing the generalization of so-called {\it diauxic} behaviour of solutions of ODEs. This behaviour was described by Monod in 1949 in the context of bacterial growth. Then a similar behaviour was observed and described referring to dynamic of CDK1 protein during cell cycle. The diauxic behaviour is described in terms of inflection points.

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