Original Articles

Some Notes on Reaction Diffusion Systems with Nonlinear Boundary Conditions

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收稿日期   修回日期   网络版发布日期   接受日期

摘要   This paper deals with the existence and nonexistence of global positive solution to a semilinear reaction-diffusion system with nonlinear boundary conditions. For the heat diffusion case, the necessary and sufficient conditions on the global existence of all positive solutions are obtained. For the general fast diffusion case, we get some conditions on the global existence and nonexistence of positive solutions. The results of this paper fill the same gaps which were left in this field.

关键词   reaction-diffusion   fast diffusion   global existence   blow-up
分类号

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