

A chemotaxis system with Fokker-Planck type diffusion

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We consider a new chemotaxis model describing the cell aggregation phenomenon. The idea of the model is that the bacteria decrease their motility when the concentration of chemical substance increases. The advantage of the model with Fokker-Planck diffusion lies not only in allowing the global existence of solutions, but in having well-known nontrivial steady states. We provide estimates of solutions and a comparison with other models.