On the proof of existence of a limit cycle for the Prigogine Brusselator model.

ABSTRACT

Existence of a limit cycle for the dynamical system well-known as the Prigogine brusselator model is proved when parameters of the system take concrete values. The proof is conducted by the new method called discrete numerical (DN) tracking of trajectory combined with the Poincare-Bendickson theorem.

Keyword: Dynamical system; Closed trajectory; Prigogine model.