General stability result for a porous thermoelastic system with infinite history and microtemperatures effect

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Abstract

In this paper, we consider a one-dimensional porous thermoelastic system with microtemperatures effects and past history term acting only on the porous equation. We show that the system is well-posed in the sens of semigroup and based on the energy method we establish a general decay result for the solutions of the system under an appropriate assumptions on the kernel. Furthermore, our result depends on the stability number that was first considered in [25]. The result of this paper improves some results in the literature.

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