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# New Model of the Phase Transition Kinetics in Solids

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One of the main feature of phase transition (PT) in solids is the entropy sources concentrated on interface and connected to PT hysteresis. To clarify the dependence of these sources on interface velocity and material properties the kinetic model of thermoelastic material is considered. The kinetics is based on the local balance of energy. The energy release is connected to material unloading in vicinity of new phase inclusions. The energy absorption is determined by change of latent energy. The model satisfies to general requirements: non-negativity of PT dissipation; thermomechanical threshold, which overshoot is accompanied by formation of new phase inclusions; thermomechanical limit, which achievement corresponds to complete transition; interrelation of the new phase growth with thermoelastic modules; dependence of the PT character (reversibility and irreversibility) on kinetic parameter. This fact is essentially new.

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