THE RESONANCE IN HETEROGENEOUS SYSTEMS OF PARTICLES COLLECTIVES

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The electromagnetic resonance in collectives of disperse particles is considered. The particles can have different dimensions and optical properties. In the general case the dielectric permittivity depends on the electric and magnetic vectors and the temperature. The heat source is determined with the help of the calculated absorbed energy for each particle [1]. Consequently, a singularity arises in the heat transport equation for the determination of the temperature in the particles collective. Analytical and numerical solutions for this equation are obtained, using appropriate changes of the resonance conditions.

We discuss the analogies between this phenomena, the model of information propagation [2], [3] and the problem randomly chosen code words in quantum information theory [4].

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