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A Study of Fundamental Law of Thermal Radiation and Thermal Equilibrium Process CHEN DAYOU, None — The fundamental law of thermal equilibrium radiation includes two elements: the law of energy distribution of matter vibrators in the radiation field and the law of energy exchange between vibrators and the radiation field. This paper discovers the law of how vibrators stimulate and absorb radiation, by a study of the black-body radiation law and the characteristics of vibrators' absorption of radiation. As for the fundamental law of thermal equilibrium radiation, its complete expression should be: the energy distribution of vibrators in the thermal equilibrium radiation field follows the energy distribution law by L. Boltzmann; the probability of vibrators' stimulating radiation is directly proportional to their state of energy levels and that of their absorbing radiation is directly proportional to their energy distribution probability. The author, on the basis of the fundamental law of thermal radiation, proposes conditions for thermal equilibrium radiation and analyses the micro momentum theory and characteristics in the process of thermal equilibrium.

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None

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