THERMODYNAMIC FUNCTIONS OF A RELATIVISTIC SYSTEM OF CHARGES IN THE RING-DIAGRAM APPROXIMATION

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S u m m a r y

A model of the gravitating electron gas with relativistic interaction in the first-order approximation in the coupling constant is considered. By means of the averaging of relativistic interaction over particle momenta, the effective potential is found. Using the standard diagram technique to the obtained potential, a partition function and thermodynamic functions are studied in the ring-diagram approximation.