STATISTICAL DESCRIPTION OF ELECTRODIFFUSION PROCESSES IN THE ELECTRON SUBSYSTEM OF A SEMIBOUNDED METAL WITHIN THE GENERALIZED "JELLIUM" MODEL

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S u m m a r y

Based on the calculation of the quasiequilibrium statistical sum by means of the functional integration method, we obtained a nonequilibrium statistical operator for the electron subsystem of a semibounded metal in the framework of the generalized "jellium" model in the Gaussian and higher approximations with respect to the dynamic electron correlations. This approach allows one to go beyond the linear approximation with respect to the gradient of the electrochemical potential corresponding to weakly nonequilibrium processes and to obtain generalized transport equations that describe nonlinear processes.