****Basic Landmarks in the Theory of Collisionless Plasma.
I. Lengmuir, L.D. Landau, A.A. Vlasov, N.N. Bogolubov,
G.V. GOrdeeb, B.B. Kadomtsev, and V.P. Silin****

A.A. Rukhadze

Prokhorov General Physics Institute Russian Academy of Sciences, e-mail: rukh@fpl.gpi.ru

The short review of developing of plasma theory is given. Enumerate under the title of this paper physicists set up the basic landmarks in this region of science.

1. I. Langmuir first experimentally investigated the properties of plasma, found the main characteristics of the plasma conditions and determined implementation of the plasma state;

2. L.D. Landau realized the reason for the inapplicability of the first gas approximation for describing the plasma, but ignored the self-consistent field and has not reached the goal;

3. A.A. Vlasov showed the important role of the self-consistent field and first received the correct equation describing the plasma, as well as theoretically grounded experiments I. Langmuir observation of plasma waves and their dispersion;

4. N.N. Bogolubov developed a general method for deriving the dynamic equations for the plasma and showed that in the first approximation in the parameter Landau rightly Vlasov equation, and three times the approach leads to Landau amendment to the Vlasov equation;

5. G.V. Gordeev first showed that the sound vibration branch different from the sound in gases, ion- sound vibration in a plasma is isothermal and exists only in non-isothermal plasma in there;

6. B.B. Kadomtsev and V.P. Silin showed that exist in the plasma undamped fashion ion-acoustic oscillations(Vlasov's modes), and for the first time developed a theory of plasma turbulence on the undamped Vlasov's modes.