gas and appearance of the first voltage drop is several microseconds.

This time interval is a regular function of the parameters characterizing the initial conditions of the discharge. For a given discharge-tube diameter it varies approximately as the fourth root of the gas mass per centimeter length of the discharge gap.

We considered here some features of the phenomena that accompany the passage of intense pulse discharges through rarefied gases. The success of further work in this direction will greatly depend on the possibility of cre-

ating conditions under which the plasma column will experience multiple oscillations during build-up of the current without coming into contact with the walls. However, there are serious reasons to believe that this cannot be achieved.

On appraising the various approaches to the problem of obtaining intense thermonuclear reactions, we do not deem it possible to completely exclude further attempts to attain this goal by using pulse discharges. How-

ever, other possibilities must also be carefully considered. Especially interesting are those in which stationary