Selective acceleration of hydrogen ions in breakdown of combined gap. Institute of electrophysics Ural Division of RAS, Ekaterinburg *I.L. Muzukin, S.V. Barakhvostov* <u>lfd@iep.uran.ru</u>

The effect of the selective acceleration of hydrogen ions in high-voltage nanosecond flashover discharge over a dielectric combined with a breakdown of a vacuum gap is found out. Various schemes of such combined discharge investigated. It is detected, that ions of hydrogen may be accelerated up to the energies essentially exceeding an applied voltage. The influence of electrode polarity on ion generation process was established.