

## عنوان مقاله:

Instrumentation for modeling of discharge processes in ignition capacitive systems

## محل انتشار:

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## خلاصه مقاله:

Abstract In this article, developing a computer model allowing to obtain analytically the dependences of the discharge current  $i(t)$  and voltage in a spark discharge  $U(t)$  on the given discharge circuit parameters is carried out. A toolkit for evaluating the characteristics of capacitive ignition systems of various types at the stages of creating new circuit technical solutions and engineering has been developed. The obtained results allow to significantly reduce the time for evaluating the potential of ignition systems without carrying out sufficiently complex and labor-intensive experimental studies. The resulting dependences  $i(t)$  and  $U(t)$  allow to determine and calculate all the main parameters of spark discharges in plugs—energy, power and duration of discharges, as well as the maximum value of the discharge current.

## کلمات کلیدی:

Ignition capacitive systems, Discharge processes, Current–voltage characteristics, Approximation

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1398226>

