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Title:Graphical modeling of THz gas-discharge laser radiation pulse shape

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Abstract:A technique for graphical modeling the pulse-shape of the radiation of the pulse-pumped THz gas-discharge laser is presented. The initial data to be used for modeling are as follows: the size and the shape of a discharge-current pulse; discharge current-dependent radiated power; the dependence of radiated power upon the tuning control of a resonator at different pumping currents. The application of the above technique makes it possible to produce pulses of required shape and to select laser peak-efficiency operating conditions. ©2012 by Begell House, Inc.

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