

Generation of Pulses with Excitable DFB Laser with Dispersive reflector

Andronic Silvia, Grigoriev Eugeniu, Tronciu Vasile

Department of Physics, Technical University of Moldova
silvia.andronic@mt.utm.md

ABSTRACT

This paper is devoted to investigation of pulse generation by a DFB laser with an integrated passive dispersive reflector. This configuration is treated in the framework of the simple rate equation model. The theoretical results show that under certain condition the laser is operating in excitable regime suitable for pulse generation. We have identified the appropriate values of parameters for pulse generation. Finally, the influence of these parameters on shape of pulses is investigated.