

Effect of transverse electric field on polariton reflectance spectra of wide quantum wells

© *D.K. Loginov, A.V. Donets*

St. Petersburg State University,
198504 St. Petersburg, Russia
E-mail: loginov999@gmail.com

Excitonic waves propagating in thick GaAs/AlGaAs quantum wells form an interference pattern, which is observed as oscillations in the reflectance spectra. Oscillations in the spectra of wide GaAs quantum wells should reveal a non-trivial behavior as a function of the external uniform electric field as it is found in the theory developed in the present work. The oscillations are suppressed as the electric field increases and then reappear again with an opposite phase at the further rise of the field.