

Bulletin of the Russian Academy of Sciences: Physics 2014 vol.78 N3, pages 180-183

---

# Femtosecond coherent spectroscopy of four-wave mixing and the spectroscopy of transient gratings in GaAs/AlGaAs semiconductor heterostructures at room temperature

Leontyev A., Ivanin K., Mitrofanova T., Samartsev V., Khasanov O.  
*Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia*

---

## Abstract

Results from femtosecond coherent spectroscopy of four-wave mixing in GaAs/AlGaAs semiconductor heterostructures at room temperature are presented. Electron diffusivities and their spins are found via spectroscopy of transient gratings. Investigations in the field of spin transport in GaAs/AlGaAs heterostructures are performed with the aim of their possible use in spintronics applications. © 2014 Allerton Press, Inc.

<http://dx.doi.org/10.3103/S1062873814030125>

---