Abstract Submitted
for the MAR12 Meeting of
The American Physical Society

Quantum lifetime of 2D electron in magnetic field[1]
SCOTT DIETRICH, SERGEY VITKALOV, City College of New York, DMITRY DMITRIEV, ALEXEY BYKOV, Institute of Semiconductor Physics, 630090 Novosibirsk, Russia — The lifetime of two dimensional electrons in GaAs quantum wells, placed in weak quantizing magnetic fields, is measured using a simple transport method in broad range of temperatures from 0.3 K to 20 K. The temperature variations of the electron lifetime are found to be in good agreement with conventional theory of electron-electron scattering in 2D systems.

[1]Supported by NSF (DMR 1104503) and RFBR, project no. 11-02-00925

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Date submitted: 11 Nov 2011 Electronic form version 1.4