



Time-Resolved Reflectivity Measurements to Characterize Novel Semiconductors Materials

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What Seems to be the Problem??

- MIRTHE wants to develop high quality but low cost sensing devices for health and environmental measurement which make use of QCL's
- In an attempt to optimize the QCL's at the core of the sensing devices, QCL Grower's are constantly trying new materials, different techniques, and varying compositions for QCL layers
- The problem is: how good are these new materials, techniques, and compositions??





What is the Solution??

- A measure of the quality of a semiconducting layer is the lifetime of optically generated carriers by short pulses of light
- A time-resolved reflectivity measurement is one method to determine the lifetime of the carriers

