## New active layer for GaAs-based lasers (Technion)

**code:** MAE-1220

Great efforts have been made toward achieving 1.3-1.55 µm emission from high performance GaAs-based lasers for use in a wide range of commercial optoelectronic devices. Research has shown that controlling the band-offset and not just the bandgap is essential in order to optimize the laser performance. This lab-proven technology succeeds in creating a bi-layer structure that can be used as an active layer for a near infrared (NIR) laser. The layer demonstrates high gain, low transparency carrier density, acts as an almost equal barrier for electrons and holes and an equal lifetime for thermal escape-all necessary properties for creation of an optimized NIR GaAs laser that can outperform existing commercial devices.

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