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Single-Step QC Laser Emits at 8.5 μm

In the latest development in quantum cascade laser research, a group of **Northwestern University** scientists reported an 8.5- μm emission from quantum cascade lasers grown in a single step by gas-source molecular beam epitaxy. In addition, the laser was demonstrated at 8 μm above 300 K in pulsed mode, making it the only type of injection laser based on III/V semiconductors in the 8- to 12- μm range, claim the researchers. A relatively new phenomenon, quantum cascade lasers differ fundamentally from interband diode lasers. They operate on electronic transitions between subbands in the conduction band in quantum wells.