

The Quantum Cascade Laser Pumped Molecular Laser: A Widely Tunable Terahertz Source

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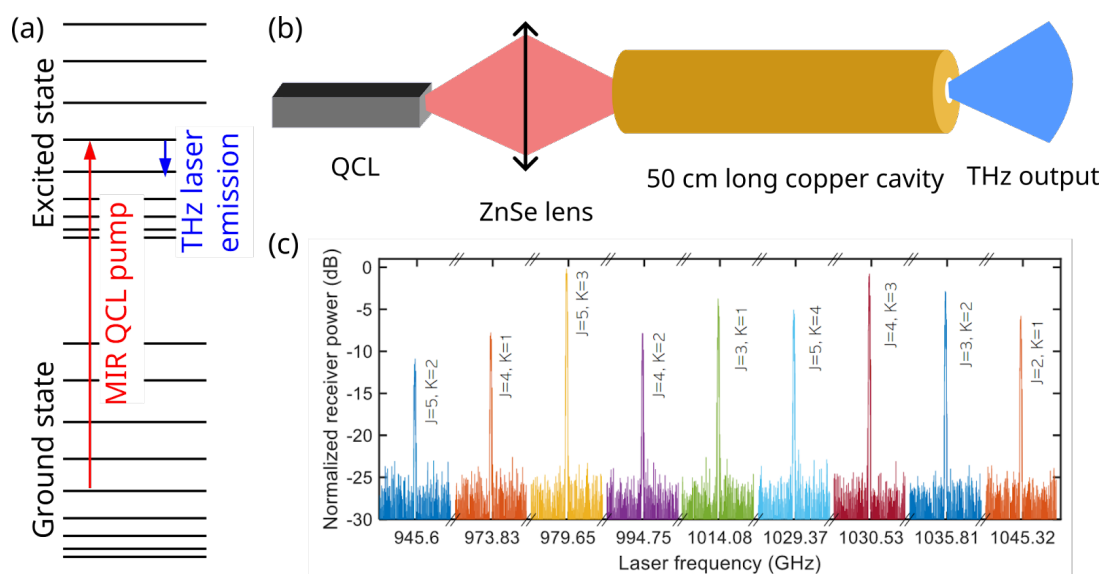


Fig. 1 (a) Energy level diagram showing the principle of the quantum cascade laser (QCL) pumped molecular laser (QPML): light from a tunable mid infrared (MIR) QCL creates a population inversion between rotational levels in an excited vibrational state. (b) Basic schematic of the QPML principle. (c) Measured emission lines around 1 THz when using ammonia as the gain medium label as a function of the pumped transition quantum numbers.