

# Spectral properties of tunable infrared lasers (Invited paper)

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The fundamental spectral broadening mechanisms of cw single-frequency semiconductor diode lasers due to quantum field fluctuations produce significant new modifications to the ordinary Schawlow-Townes linewidth. Spectral characteristics of tunable transition-metal ion solid state lasers are also discussed.

## 可调谐红外激光器的光谱特性

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由于量子场起伏引起的连续单频半导体二极管激光的基本光谱加宽机制对于普通的 Schawlow-Townes 线宽产生重要的新修正。文中还讨论了可调谐过渡金属离子固体激光器的光谱特性。