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标题: Temperature Effects on the characterization of new Quantum Dot Dual Mode Lasers for Terahertz generation

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摘要: In this work, a theoretical and model study of the temperature effects on threshold current, as tuning technique, and the comparison with experimental results of quantum dot (QD) diode lasers is presented. It is well known the dependence of output wavelength with temperature in semiconductor lasers. This property can be highly useful in order to obtain stable and easy tuning lasers getting two different specific wavelengths to achieve signals in the millimetre (mmW) and terahertz (THz) ranges by photomixing. Our model and study over QD lasers allow us to understand the behaviour of temperature inside the device and thus, we can estimate the best characteristics to obtain the desired results.

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