



DOWNLOAD



THEORETICAL AND EXPERIMENTAL INVESTIGATION OF IV-VI MID-IR MQW VCSELS

By Shahriar Khosravani

VDM Verlag Dr. Müller. Taschenbuch. Book Condition: Neu. Neuware - Mid-infrared section of the optical spectrum is typically between 3 to 30 m wavelengths. This area represents optical absorption of a wide range of chemical and organic compounds. Mid-IR absorption spectroscopy is one of the known highly accurate chemical analyses. There are several requirements for the light source used in such techniques. Thermal stability, tunability, monochromaticity, and sufficient power output are a few vital elements of such a system. Lead salt lasers are one of the known sources for mid-infrared light. They can cover 2.9 to 27 m wavelength. The main difficulty of lead salts is their poor thermal conductivity. This prevents the traditional edge-emitting laser to operate continuously (i.e. CW mode) at room temperature. CW mode is a necessary condition, since any spectral analysis needs a light source with minimum harmonics. To this date, the highest temperature CW mid-IR available is around 223K, which is still well below thermoelectric cooling range (i.e.~260K). The main goal of this research is to assist the development of an innovative light source that can be installed in a portable optical spectroscopy unit. 104 pp. Englisch.



READ ONLINE
[8.86 MB]

Reviews

This created pdf is fantastic. Indeed, it can be perform, nonetheless an interesting and amazing literature. Its been developed in an remarkably straightforward way and is particularly simply following i finished reading this publication by which in fact altered me, alter the way i really believe.

-- **Amanda Hand Jr.**

A must buy book if you need to adding benefit. Of course, it is actually perform, still an interesting and amazing literature. I am delighted to explain how this is basically the best book i actually have read through during my individual life and may be he best book for at any time.

-- **Jarod Bartoletti**