

V60

Diode Laser Spectroscopy

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Durchführung: April 29, 2024

Abgabe:

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1 Zielsetzung

2 Theory

2.1 Historical Background

Before semiconductor lasers were invented, physicists used tunable 'dye' lasers. This worked by the use of a chemical dye as the active medium, i.e the material which produces the laser emission. A fixed-frequency 'pump'-laser is used to create a population inversion. Each individual dye will lase over a limited wavelenght range. This means with different dyes it is possible to generate a tunable lasers at basically all near-infrared wavelenghts. Dye Lasers have some disadvantages. They are very large , very expensive to purchase and expensive to operate.

3 Aufbau

4 Durchführung

5 Auswertung

6 Diskussion

Appendix