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Title of the thesis



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in the Master's Program
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JOHANNES KEPLER UNIVERSITY LINZ

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Abstract

This is a placeholder for the abstract. It summarizes the whole thesis to give a very short overview. Usually, this the abstract is written when the whole thesis text is finished.

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1 Introduction

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1 Introduction

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2 Quantum Dot

2.1 Processing

2.2 Properties of our dots

Table 2.1: My caption

| Quantum dot emission | Energy | Frequency |
|--------------------------|---------------------------------------|--|
| Center Spectral range | (1.38 to 2.07) eV (100 to 500) µeV | $(3.33 \text{ to } 5.00) \times 10^{14} \text{ Hz}$ $(24.20 \text{ to } 120.90) \times 10^9 \text{ Hz}$ |
| Spectral range | (100 to 500) µev | $(24.20 \text{ to } 120.90) \times 10^{\circ} \text{ Hz}$ |

2.3 Adiabatic Rapid Passage

3 Chirp

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4 Scanning Fabry-Pérot Interferometer

4.1 Motivation

Resolve QD emission line.

4.2 Theory

4.2.1 Gaussian Beam

Dot-Spectra in far field is (TEM_{00}).

4.2.2 Fabry-Pérot Interferometer

The Fabry-Pérot interferometer is an optical resonator developed by Charles Fabry and Alfred Pérot. An incoming light beam will only be transmitted through the resonator consisting of two semi-transparent mirrors if it fulfils the resonance condition.

But what then?

- 4 Scanning Fabry-Pérot Interferometer
- 4.2.3 Simulation
- 4.3 Setup
- 4.4 Measurements and Results

Appendix