ZHIFAN DAI

CONTACT

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LinkedIn Profile

My Research Blog

Grotesteenweg-Noord 83B,
9052, Gent, Belgium

EDUCATION

University Ghent, Belgium

Master of Photonics Engineering

2022 - Present

Dalian University of Technology, China

Bachelor of Electronic Science and Technology

2018 - 2022

SKILLS

Lumerical PIC

Python Matlab

INTERESTS

Music, Sports(Football & Racing), Photography, Travel

REFERENCES

Prof. dr. Nicolas Le Thomas

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Nicolas.LeThomas@ugent.be

Prof. dr. ir. Wim Bogaerts

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Wim.Bogaerts@ugent.be

PROFILE

I am currently pursuing a master degree in photonics engineering at Ghent University,. I have some research focus on photonic integrated circuits (PIC) in spectroscopy, which I share on my research blog. My passion lies in spectroscopy, lasers, and PIC technologies, and I want to continue exploring these areas in my work. Generally speaking, I enjoy teamwork. And I have many interests, which reflect my enthusiasm and energy in life.

RESEARCH EXPERIENCE

Design and simulation of gratings for on-chip UV Raman spectroscopy

09.2023 - Present

This research is my master thesis promoted by Prof.Nicolas Le Thomas, my major work until now are:

- Design grating coupler for UV light, mainly for 266nm,
- Use Lumerical to simulate and verify design,
- Try to understand the modes of Raman spectroscopy in the structure
- Fabricate and verify the coupler sample

Research of Recent Trends in Astrocomb

09.2023 - 12.2023

This research is promoted by Prof.Wim Bogaerts for my “Recent Trends in Photonics” course, I mainly (discussed):

- Reviewed the history of astrocomb development,
- Briefly explained the basic principles,
- The application of astrocombs,
- Classification of astrocombs and their advantages and disadvantages.

Ultra Violet C Irradiation Grating Coupler Design

03.2023 - 06.2023

This one-semester-long research is also promoted by Prof.Nicolas Le Thomas, which can be seen as the prelude to my master thesis:

- Initial grating parameter analysis and design,
- Be familiar with simulation and verification design by using Lumerical

Structural Design of Antireflection Films for Mid-infrared Transparent Conducting Coating

11.2021 - 06.2022

This is my bachelor thesis research, which I focused on :

- Research of uncooled PbSe mid-infrared photoconductive detector
- Using Essential Macleod to design broadband antireflection films for transparent conductive chalcogenide semiconductors

OTHER EXPERIENCE

I have been the student representative of our master program since 09.2022