



Alpes Lasers Overview

Dr. Antoine Muller - CEO

info@alpeslasers.ch

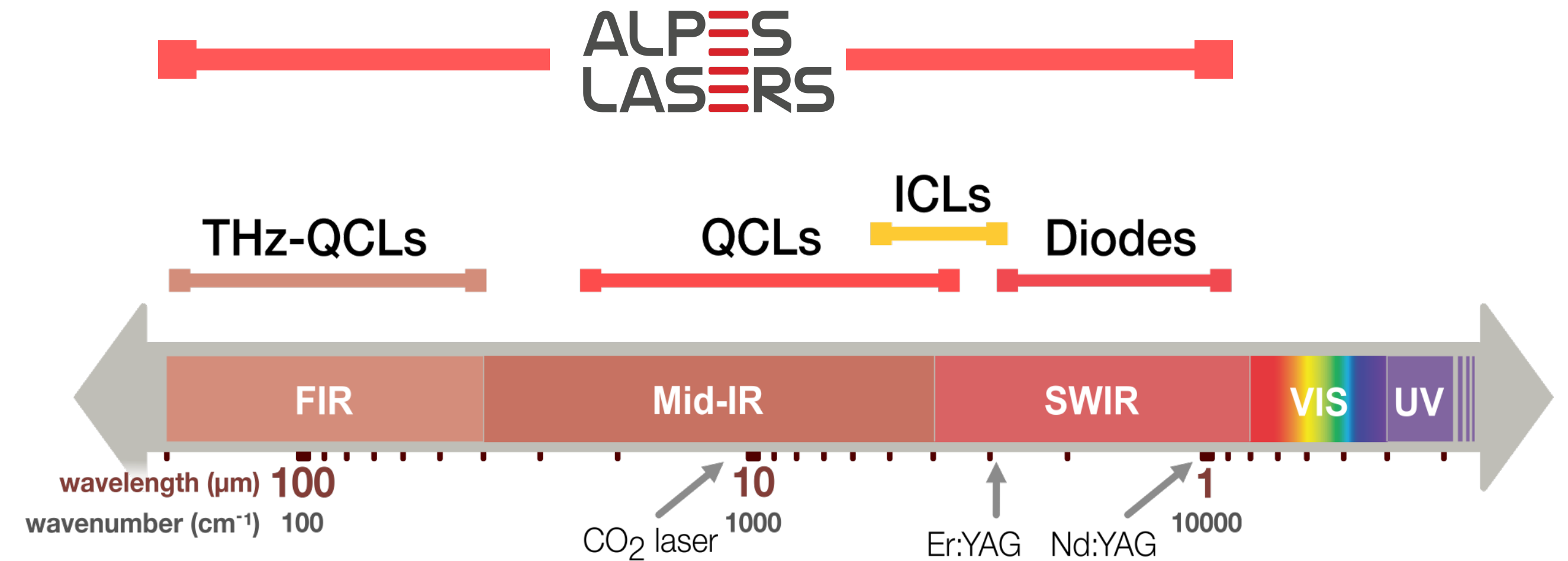
www.alpeslasers.ch

ALPES LASERS

Infrared laser sources (0.9-16 μm)
Terahertz laser sources (1.5-5 THz)

QCLs – Quantum Cascade Lasers
ICLs – Interband Cascade Lasers
Diode Lasers

- Pioneers in infrared laser development since 1998
- Design and manufacture a wide variety of laser sources covering the infrared spectrum
- Serving cutting-edge QCL technologies to a global market

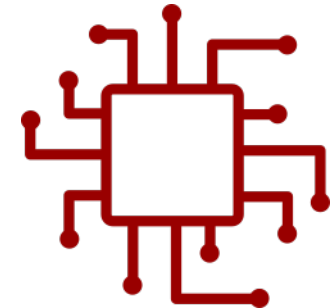




LASER SOURCES

- **Quantum Cascade Lasers**
 - DFB QCL
 - FP QCL
 - High Power QCL
 - THz QCL
 - Custom developments
- **Interband Cascade Lasers**
 - DFB ICL
 - FP ICL
- **Laser diodes**

DESIGN & FABRICATION



ELECTRONICS

- **Electronic Drivers (Pulsed/ CW)**
 - S Drivers
 - CW Driver
 - ICW Driver
- **Temperature Controller**
- **External Cavity Controller**

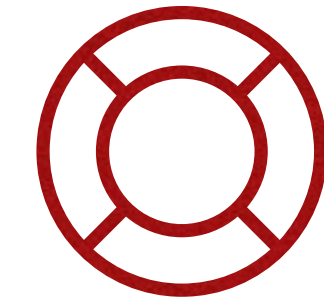
DESIGN & FABRICATION



ASSEMBLIES

- **External Cavity Laser kit**
- **Pigtailed components/ lasers**
- **Laser Laboratory Housing**
- **Laser/photodetector assemblies**
- **Custom systems**

DESIGN & INTEGRATION



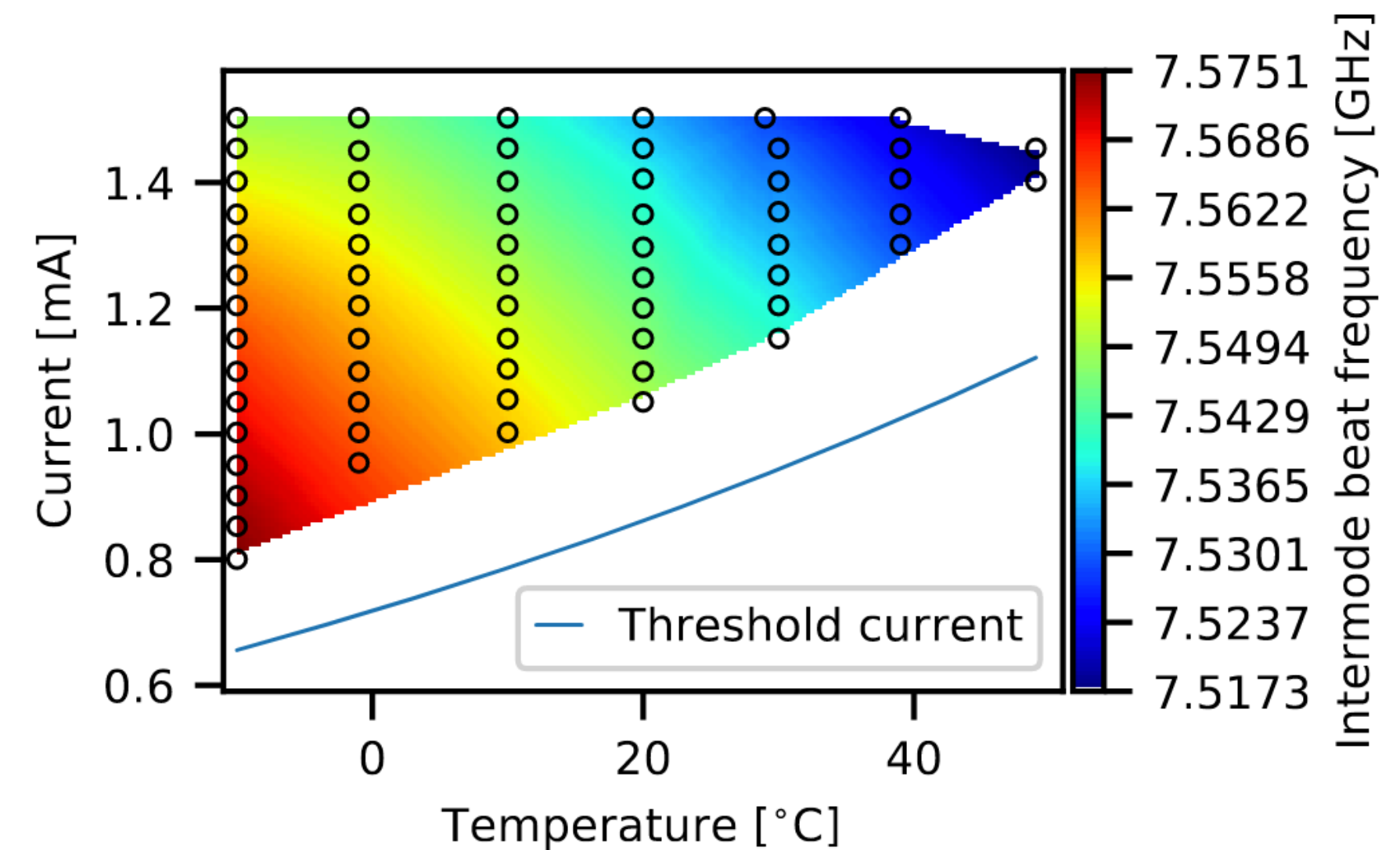
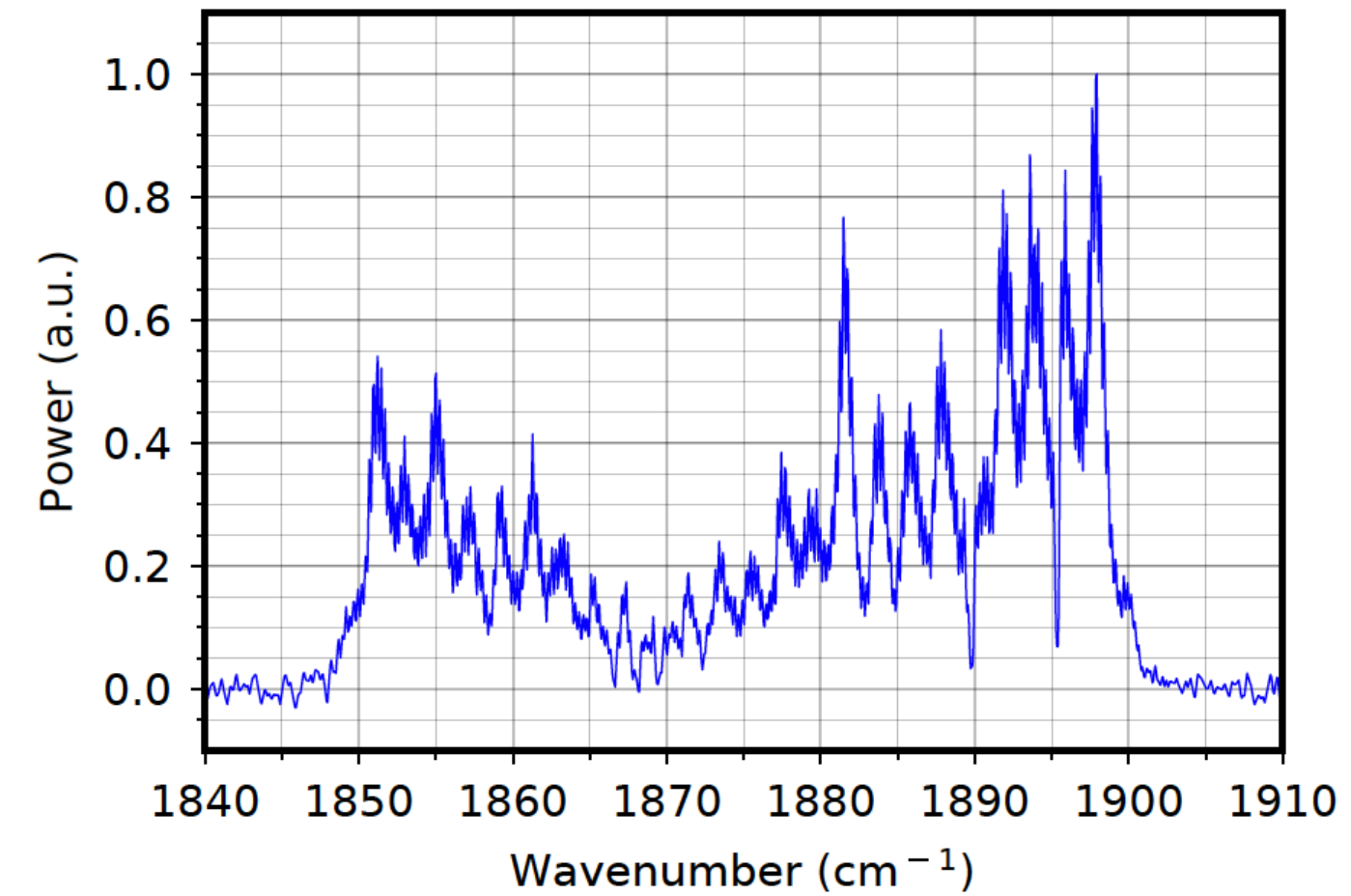
SERVICES

- **Research on hire**
- **Custom laser sources development**
- **Custom systems development**

CUSTOM DEVELOPMENTS

QCL Combs

- Sole commercial manufacturer of QCL frequency combs at 6 and 8 μm
- Enable higher temporal resolution techniques in gas spectroscopy
- Stable GHz signal generation (telecoms)
- Significantly more compact and robust than non-QCL optical frequency combs



Hakobyan *et al.*, *Quantum Cascade Laser frequency comb at 5.3 μm with double-plasmon design*

OUR SERVICES

PROVIDED SERVICES.

Alpes Lasers provides a wide range of services, ranging from contractual R&D for the development of novel products, all the way to designing and fabricating complex photonics systems.



COMPONENT DESIGN

We design custom laser sources, electronics and integrated systems in the near- and mid-IR.



CONTRACTUAL R&D

We help large companies and SMEs in exploring the possibilities provided by photonics, and developing novel products.



CUSTOM FABRICATION

We fabricate custom photonics solutions, including laser sources, electronics and integrated systems.



INTEGRATION

We can create high-level photonics solutions by integrate components and providing a turn-key system.

R&D ACTIVITY

INNOVATING PHOTONICS.

Alpes Lasers has raised over 11 M euro of funding in the last 4 years by participating in highly innovative R&D projects.

We are currently participating in **16 active EU Grants**

(11 H2020 & 5 EUROSTARS projects), making us the most active SME in Switzerland.





Applications

WHO WE WORK WITH.

Alpes Lasers has sold several thousands of devices to a global network of partners and clients.





CONTACT

sales@alpeslasers.ch
www.alpeslasers.ch



FOLLOW

[linkedin.com/company/
alpeslasers](https://www.linkedin.com/company/alpeslasers)



VISIT

Avenue des Pâquiers 1
St-Blaise 2072 Switzerland

ALPES LASERS

Thank you

