

Thermal Engineer position

About us

At Cooling Photonics we are busy trying to change how we manage heat. We are a startup based in Barcelona, Spain, working on bringing innovative solutions to heat problems. We work at the intersection of disciplines such as photonics, nanotechnology and materials engineering. We develop, manufacture and commercialise innovative and cutting-edge solutions for passive heat management that reduce energy consumption and carbon emissions. In day-to-day life, you will see our core values shining through our “Coolers”. The passion and dedication towards our mission will hit you the moment you walk through our doors - and there’s no feeling like it. Our journey is not plain sailing - it requires proactive, flexible and top performing individuals who are committed to the world sustainability and energy efficiency. But one thing is for sure - it's going to be a fun ride! Are you ready to change the world with us?

Description of Project:

The objective of the project is to integrate hierarchical patterns on solar photovoltaics to acquire different functionalities. We are seeking for a thermal engineer to contribute to solve the challenges of modelling, characterization and field testing of our coatings in relevant environments. This is driven by the need of producing advanced thermo-functional materials for PV at industrial scale, which could help to reduce their operation temperature and increase their efficiency. Our aim is to contribute to reduce the intensive energy use and carbon footprint of conventional cooling technologies and increase the efficiency of other renewable energy technologies such as PV. The candidate will participate in a project that involves interactions with industry, market and research.

Main Tasks and responsibilities:

We look for exceptional people and give them a level of responsibility, exposure and autonomy that will accelerate their career.

You will be responsible for modelling the thermal performance of our multi-functional coatings and you will participate in their experimental characterization, collaborating also in the field testing.

Responsibilities

- Modelling the thermal performance of multi-functional coatings
- Planning, preparation, execution and data analysis of thermal modelling.
- Characterization and field testing of our of multi-functional coatings in relevant environment reporting their thermal performance.
- Solve engineering problems in the fields of thermal energy by numerical and experimental methods
- Participate in the design of thermal systems and equipment, heaters and coolers and field test activities.
- Participate in the characterization of the optical and thermal properties of these coatings by spectroscopy (UVVIS and IR).
- Participate in the thermal performance characterization and outdoor field tests for pilot projects. These tests include improved electric performance of solar cells and the

evaluation of the cooling performance obtained by continuous temperature cycle and net cooling power measurements.

- Participate in the conception, the design and the set-up of the thermal experiments.

Who you are:

We are looking for a highly motivated thermal engineer, interested in thermal modelling and instrumentation. Knowledge of photonics, thermal photonics, renewable and clean energy are a plus.

Minimum requirements

- You **have a PhD degree** in thermal engineering, physics, nanotechnology, or equivalent.
- You have a background and an interest in thermal modelling and instrumentation for characterization/field testing.
- Good understanding of the related material properties, instrumentation and cooling technologies is essential, experience in photonics is a plus.
- You thrive in a collaborative environment involving different stakeholders and subject matter experts.
- Proven track record for working well across teams and with external partners.
- You are a strong communicator and can explain complex issues in clear, persuasive language.

Competences:

- Highly motivated, have a transversal background and enjoy learning new skills.
- Self-motivated and willing to tackle the challenges of characterizing the thermal performance of our multi-functional films in relevant environments.
- Creative, collaborative and like to work in a high performant team to solve problems.
- Ability to meet deadlines with quality output deliverables.
- Flexible to accept new challenges in the future, and to evolve together with the changing R&D demands of our high-tech environment.
- Proactive and autonomous character
- Excellent team player with very good communication and reporting skills.

Summary of conditions:

- Full time work (37,5h/week)
- Contract Length: Permanent contract
- Competitive salary to be tailored to qualifications and demonstrated experience.
- Estimated Incorporation date: As soon as possible.
- 30-day holidays.
- Possibility of hybrid working.



- No suits! Unless it's Carnival or Halloween.

Please submit your CV in English to info@coolingphotonics.com with the subject "Thermal Engineer application"

*At Cooling Photonics, we're committed to equal employment opportunity by regardless of race, colour, ancestry, religion, sex, national origin, sexual orientation, age, citizenship, marital status, disability, gender, gender identity or expression, or veteran status. We strive to be a more equal opportunity workplace.