



SCIENCE & CREATIVITY TO BUILD A SUSTAINABLE WORLD

**We are
HIRING**

Postdoctoral Researcher in Battery Fire Safety

Institution:	IMT Mines Alès (National School of Mines of Alès)
Primary Assignment:	C2MA - UPR Hybrid Composite Polymers (PCH)
Administrative location:	Alès (Gard Department – Occitanie Region)
Contract type:	20-month fixed-term contract – Public-law contract – Full-time
Start date:	November 1, 2026

About Our Institution, the C2MA

The Institut Mines-Télécom

The Institut Mines-Télécom (IMT), a “grand établissement” as defined by the French Education Code, is a public scientific, cultural, and professional institution (EPSCP) under the primary supervision of the ministers responsible for industry and digital affairs. As France’s leading group of engineering schools, it brings together 11 public engineering schools located throughout the country, which train 13,500 engineers and PhDs. IMT employs 4,500 people and has an annual budget of €400 million, 40% of which comes from its own resources. IMT comprises 2 Carnot Institutes, 35 industry-sponsored chairs, produces 2,100 A-level publications annually, files 60 patents, and conducts €110 million in contract research.

IMT Mines Alès

The school’s mission: “Drawing on its affiliation with IMT and its strong regional roots, IMT Mines Alès provides its students with the best opportunities to achieve professional fulfillment so they can become responsible contributors to the nation’s development while preserving the planet’s resources.” The values that drive us: boldness, commitment, collaboration, and excellence.

Founded over 180 years ago, IMT Mines Alès currently has 1,400 students (including 250 international students) and 380 staff members. It has two campuses in Alès and also maintains a presence in Montpellier and Pau. Its students include general engineers, specialized engineers (through apprenticeship programs), doctoral candidates, and students in master’s or specialized master’s programs. It also hosts more than 500 trainees in continuing professional education.

The school has three research and teaching centers of high scientific and technological caliber, working in the fields of materials and civil engineering (C2MA), the environment and risk management (CREER), and artificial intelligence and industrial and digital engineering (CERIS). These entities bring together approximately 85 tenured faculty members (half of whom hold HDR status), 40 research support staff, and 100 doctoral and postdoctoral students, who produce more than 130 top-tier publications and secure €3 million in research grants each year, one-third of which are direct contracts with companies. These research staff contribute to 6 research units, including 4 UMRs. IMT Mines Alès is accredited to award doctoral degrees through 4 doctoral schools.

It operates 12 technology platforms and has 1,600 partner companies. Creativity is a defining characteristic that permeates all its activities. The school was the first to establish an incubator in 1984 (200 companies created to date, 1,000 jobs). The school offers rich and varied career paths: faculty members have opportunities for professional mobility across the various IMT schools and may also, if they wish, take on responsibilities within the school’s functional departments (academic affairs, research, international affairs, economic development, etc.) for part of their time.



IMT Mines Alès is a Sustainable Development & Social Responsibility (DD&RS)-certified institution. Within the school, every individual plays a key role in our approach. We are committed to promoting environmentally friendly practices, fostering diversity and inclusion, and ensuring ethical conduct in our activities. We encourage all our staff to adopt a responsible approach in their daily actions and to propose innovative ideas that strengthen our positive impact on society and the environment.

The Mines Alès Materials Center (C2MA)

The Mines Alès Materials Center (C2MA) comprises three research teams: the PCH research unit “Composite and Hybrid Polymers,” the DMS team (“Sustainability of Eco-Materials and Structures”) of CNRS Joint Research Unit (UMR) No. 5508 LMGC, and the RIME team (“Research on the Interactions of Materials with Their Environment”) of CNRS Joint Research Unit (UMR) No. 5254 IPREM.

The C2MA Center also includes two academic departments (GCBD “Civil Engineering and Sustainable Construction” and ECOMAP “Eco-Materials and Processes”) and four technology platforms (ALCOVES in Pau, MOCABIO, MICRAL, and EDMOS in Alès—see figure).



Introduction to the Research Team:

The overall objective of the PCH unit is to develop multifunctional polymer, composite, and hybrid materials with low environmental impact. The research focuses on the design of eco-materials—materials made from bio-based materials (derived from plant lignocellulosic materials or marine algae) or recycled materials—and seeks to improve the properties of these materials (mechanical, thermal, fire resistance, absorption, etc.) so that they can replace conventional materials—which are often petroleum-based—and thereby reduce the environmental footprint. Research is also being conducted on improving the sustainability of (eco-)materials and on the treatment of plastic and composite waste at the end of their life cycle through various means, including reuse as secondary raw materials, composting, and biodegradation. These research efforts are part of a comprehensive bioeconomic model involving stakeholders ranging from biomass producers to recycling sectors, processors, and materials manufacturers. The materials under study have a wide range of applications, including construction, transportation, energy, healthcare, the environment, fashion, and more.



Job Description:

The position offered is a postdoctoral fellowship at the Institut Mines-Télécom. The position will be based in the PCH unit. It includes both teaching and research responsibilities. The successful candidate will contribute to the development of experimental activities aimed at better understanding battery thermal runaway phenomena and their interactions with the polymer materials present in their environment. In particular, they will participate in the design, implementation, and validation of a test bench to study the impact of thermal runaway in batteries surrounded by polymer materials.

At the same time, the successful candidate will help develop the curriculum for the PRINEC specialized master's program by designing and teaching a course on battery fire safety, covering failure mechanisms, associated risks, testing methods, and prevention and protection strategies.

Main Responsibilities:

The successful candidate will conduct their research as part of the AMI Compétences et Métiers d'Avenir (CMA) project within the PCH unit at IMT Mines Alès. Their work will focus on the fire safety of lithium-ion batteries, with the goal of better understanding the interactions between battery thermal runaway and the polymer materials present in the battery's environment.

The postdoctoral researcher will participate in the design, development, and implementation of an experimental test bench to study the effects of battery thermal runaway in the presence of polymeric materials. He or she will define experimental protocols, conduct test campaigns, and analyze the results to improve understanding of fire propagation mechanisms. The work will be carried out in close collaboration with the project's academic and industrial partners, within a multidisciplinary research environment.

At the same time, the successful candidate will contribute to the development of IMT Mines Alès's curriculum in the field of battery fire safety. They will participate in the design and implementation of a training module focused on thermal runaway mechanisms, associated risks, testing methods, and prevention and protection strategies. They will prepare teaching materials and deliver the associated courses.

Finally, the successful candidate will contribute to the scientific dissemination of the work carried out as part of the project. They will be encouraged to share their research findings through publications in international scientific journals, presentations at national and international conferences, and briefings for project partners.

Desired Profile and General Evaluation Criteria

Your supervisor and the existing team will support you in developing your skills, while making the most of your experience and talents:

Minimum required education and/or experience:

Beyond your degree, your personality will make the difference.



- ▶ Ph.D.

Required skills, knowledge, and experience:

- ▶ Proficiency in scientific English, both written and spoken.
- ▶ Ability to showcase your work through publications in international scientific journals and presentations at national and international conferences.
- ▶ Strong writing skills.



Required technical and transferable skills:

- ▶ Dynamism
- ▶ Independence
- ▶ Commitment
- ▶ Enjoy working as part of a team
- ▶ Organizational skills
- ▶ Scientific rigor
- ▶ Initiative
- ▶ Adaptability
- ▶ Intellectual curiosity
- ▶ Creativity and innovation

Application



Administrative Requirements for Application

The position offered by IMT Mines Alès is a 20-month, full-time, fixed-term contract under public law governed by the management framework of Institut Mines-Télécom, job category P (Postdoctoral Researcher), category II.

Salary: €35,400 gross annually.



Application Guidelines

Applications (resume and cover letter) should be sent **exclusively to:**



<https://institutminestelecom.recruitee.com/o/post-doctorante-dans-la-securite-incendie-des-batteries-cdd-20-mois-imt-mines-ales>

The recruitment team will carefully review your application.



Recruitment Schedule

A panel of several people will interview you and ensure you have the best possible conditions to succeed in this interview.

Application deadline: **September 11, 2026**

Estimated date of the selection committee meeting: **September 25, 2026**

Desired start date: **November 1, 2026**



Contacts

If you need further clarification on any aspect of the application, please feel free to contact the individuals listed below :

Regarding the job description:

Marcos BATISTELLA, Associate Professor –
Director of the PRINEC Master's Program

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Regarding administrative matters:

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Onboarding

A smooth onboarding process for a successful start

Upon your arrival, you'll benefit from an onboarding period designed to help you familiarize yourself with your responsibilities and work environment. You'll be welcomed by your HR liaison, who will guide you through all the necessary steps to ensure a smooth transition into your new role.