

Postdoctoral Researcher in Polymer Materials Synthesis and Characterization

Associate Lecturer in Inorganic Chemistry and Materials

Job profile

Context

L'École Supérieure de Physique et de Chimie Industrielles de la Ville de Paris (ESPCI Paris ; <https://www.espci.fr/en/>) is both a "Grande École d'ingénieurs" and a research institute (17 laboratories) of international reputation with a strong culture of scientific excellence. Teaching and research are at the crossroads of knowledge and know-how in physics, chemistry and biology.

Missions and responsibilities

TEACHING

Teaching will be carried out as part of the Inorganic Chemistry and Materials course. This class aims to present the fundamental concepts of inorganic chemistry, relying on the optical and electronic properties of materials and associated applications. The lecturer will participate in practical work, tutorials and preceptorship, notably in coordination chemistry, organometallic chemistry, materials (composites, hybrid materials, sol-gels ...) and properties / applications (photography, luminescence, lasers). As a result, extensive knowledge of physicochemistry is desirable.

RESEARCH

The research will be carried out in the Molecular, Macromolecular Chemistry and Materials Laboratory at ESPCI Paris. This laboratory is known for conducting fundamental research inspired by and oriented towards industrial applications. The laboratory focuses on the design, synthesis and study of polymeric and composite materials organized at different scales.

The research project will focus on the study of structure/property relationships in vitrimers based on boronic ester chemistry. In particular, the flow properties, creep and solvent resistances will be quantified as a function of the structural parameters of the vitrimer networks (topology, functionality, composition) and of the dynamics of exchange of boronic ester links. Therefore, this research project will be at the interface of macromolecular chemistry and the physicochemistry of polymeric materials.

Hierarchical environment

The research will be carried out in the Molecular, Macromolecular Chemistry and Materials Laboratory at ESPCI Paris under the supervision of Prof. R. Nicolaÿ.

Candidate Profile

Knowledge and qualities sought

The candidate must hold theoretical and practical knowledge in inorganic chemistry and/or organic chemistry. Strong knowledge in polymer chemistry as well as previous teaching experience will be highly appreciated.

Required training (or diploma)

The candidate must hold a PhD.

Recruitment terms and conditions

Status: Associate Lecturer

Position to be filled as from: September 2019

Duration: 1 year with possibility to extend for a second year.

Recruitment condition: to hold a thesis at the time of taking office

Applications and contacts

Applications must include:

- A Curriculum Vitae with the complete contact details of the candidate
- A summary of the scientific and teaching activities with the contact details of two referents
- A cover letter
- The copy of the doctoral degree

The files must be sent by e-mail as a single document, in PDF format only, to the e-mail address: recrutement@espci.fr with cc to :

Dean of Studies Office: veronique.bellosta@espci.psl.eu

Teaching Supervisor: corinne.soulie@espci.fr et sophie.norvez@espci.fr

Research Supervisor: renaud.nicolay@espci.fr