



The “Electronic structure of complex materials” group of **Laboratoire de Chimie Physique - Matière et Rayonnement** (LCP-MR) together with the “Mineralogy and low-dimensional magnetism” group of **Institut de Minéralogie, de Physique des Matériaux et de Cosmochimie** (IMPMC) are pleased to announce a

### Fully-funded 3-year PhD position

for a well motivated candidate with a strong interest in experimental/theoretical chemical physics to join our research program on strongly correlated electron systems by means of X-ray spectroscopies.

#### Our offer

Based on the Pierre et Marie Curie campus in the heart of Paris, the PhD candidate will join an academic and research institution with outstanding infrastructure and will have the opportunity to work in a lively scientific environment. **Sorbonne Université** is the largest scientific/medical academic complex in France. Both laboratories, LCP-MR and IMPMC, maintain strong ties to the French national synchrotron light source SOLEIL. We have recently initiated a novel research program focused on magnetically frustrated pyrochlore materials by means of resonant inelastic X-ray scattering (RIXS) <sup>1</sup>, from both experimental and theoretical perspectives. The project involves measurement campaigns (beamtimes) at Synchrotron SOLEIL using the AERHA spectrometer <sup>2</sup>. The data will be interpreted in the framework of ligand field multiplet (LFM) theory <sup>3</sup> implemented in Quancy <sup>4</sup>. For further information please contact us at the addresses indicated below.

The PhD position is funded for **three years** through **Institut de Science des Matériaux**. The salary is fixed by administrative regulations to 1769€/month gross (for more information please visit [www.enseignementsup-recherche.gouv.fr/cid76053/le-financement-doctoral.html](http://www.enseignementsup-recherche.gouv.fr/cid76053/le-financement-doctoral.html)).

The appointment will start **1<sup>st</sup> October 2021**.

#### Your profile

We are looking for a candidate (m/f/d) with a Master degree in chemical physics, physics or related fields. Experience in the operation of experimental setups, as well as interest in data analysis and programming will be appreciated. The candidate should be open to teamwork in frame of national and international cooperations.

#### Application

Please send your application including a letter of motivation, your CV, recommendation letters from previous supervisors (master internships), diploma and a transcript of the academic record for Master 1 & 2 (if ongoing, only for the first semester of M2) to:

Dr. Gheorghe S. Chiuzbăian <[gheorghe.chiuzbaian@sorbonne-universite.fr](mailto:gheorghe.chiuzbaian@sorbonne-universite.fr)> and

Dr. Amélie Juhin <[amelie.juhin@sorbonne-universite.fr](mailto:amelie.juhin@sorbonne-universite.fr)>

### Application deadline: 30<sup>th</sup> April 2021

<sup>1</sup>S. G. Chiuzbăian, *A Student's Introduction to Resonant Inelastic Soft X-ray Scattering*, in “Magnetism and Synchrotron Radiation: Towards the Fourth Generation Light Sources” (edited by E. Beaurepaire *et al.*), Springer Proceedings in Physics”, Vol. 151, p. 185 (Springer, Berlin, 2013).

<sup>2</sup>S. G. Chiuzbăian *et al.*, *Rev. Sci. Instrum.* **85**, 043108 (2014).

<sup>3</sup>H. Elnaggar, P. Glatzel, M. Retegan, C. Brouder and A. Juhin, *X-ray Dichroisms in Spherical Tensor and Green's Function Formalism*, in “Magnetism and Accelerator-Based Light Sources” (edited by H. Bulou *et al.*), Springer Proceedings in Physics”, Vol. 262, p. 83 (Springer, Berlin, 2021).

<sup>4</sup>[quancy.org/](http://quancy.org/)