

Open Position: Data Analysis for the Discovery of New Hybrid Perovskite Phosphors

The LED technology is currently creating a new clean lighting industry which will save 40% to 70% of the energy currently consumed for lighting (corresponding to a saving of 640 million tonnes of CO₂ per year). No other electricity consumer has been reported to have such potential of energy-savings. In this context, the discovery of new highly efficient phosphors with high color-rendering for LED is primordial but very competitive. In order to stay competitive in this global market, it is important to develop a new approach to greatly accelerate the discovery of these materials which are usually made by a traditional "one by one" approach. Among the new generations of materials for LED technology, hybrid perovskite compounds have recently shown a great potential. In the *Institut des Matériaux Jean Rouxel de Nantes* (IMN, CNRS Institute), we developed a high throughput approach to produce and characterize the properties of a large amount of such perovskite materials. Thus, a new and important database of compounds/properties has been built in the past few years and some promising compounds were identified.

In the *Institut des Matériaux Jean Rouxel de Nantes*, you will be in charge of the data analysis of our databases of materials. Your objective will be to rationalize the key features (chemical composition, structure, experimental conditions ...) responsible for specific set of optical properties (luminescence, reflection, color, intensity) in order to guide your further experiments.

Candidates must hold a Ph.D. degree in Chemometrics or Inorganic Chemistry. In addition, the candidate should be independent and have good communication skills (good oral and written English) in order to work in a highly multidisciplinary team (materials scientists, chemists, physicists). Knowledge in data analysis is a plus but not mandatory.

Interested individuals should send a resume, a cover letter, and a list of three references to: Dr. Romain Gautier (romain.gautier@cnrs-immn.fr) and Dr. Florian Massuyeau (Florian.Massuyeau@cnrs-immn.fr).

Website: <http://www.cnrs-immn.fr/index.php>