

Post-doctoral researcher position

The group "Crystals and Quantum State Dynamics" (www.cqsd.fr) at IRCP (Chimie ParisTech/CNRS/PSL University) is internationally recognized for developing rare earth doped crystals for applications in quantum technologies.

Applications are invited for a one-year post-doctoral researcher position, that can be extended to a second year, in the area of high resolution and coherent spectroscopy of rare earth doped materials. The project is supervised by Drs. Diana Serrano and Philippe Goldner. Its main goal is to investigate spin dynamics in a new system we recently introduced, $^{171}\text{Yb}^{3+}:\text{Y}_2\text{SiO}_5$, and develop new schemes to minimize spin-spin interactions that are detrimental to optical and spin coherence lifetimes. This crystal raises strong interest for quantum memories, single ion/spin detection and control, as well as microwave to optical transduction.

This position is part of a French national project, Mirespin (Microwave Rare Earth Spin Interfaces for Quantum Information Processing), which includes 2 other teams in Paris and Grenoble.

The candidates should hold a PhD in optics or solid-state physics and have a strong interest in interdisciplinary research. Candidates should have experience of optical spectroscopy and/or rare earth doped materials, coupled with a proven ability to write and publish high quality papers. Very good skills in English are also required.

Applications can be sent through this [link](#).

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