Jérôme RICHY

PhD Engineer – Material Science R&D

Graduated from the "École Nationale Supérieure des Mines de Nancy" french high school, I developed my knowledge and skills in the research area by performing a PhD research project on the growth and characterization of magnetic nanolayers. I am now looking for an opportunity in the R&D or process industry, in the field of new technologies.

Work Experience

Oct. 2012 – Nov. 2016

PhD in Material Science

Laboratoire de Magnétisme de Bretagne, Brest.
University of Johannesburg, South Africa (cobadged).

Study of the magnetic behavior of nanometric thin films, in the context of magnetic data storage (MRAM) :

- growth of nanometric thin films by RF sputtering ;
- structural and microstructural characterization (TEM, AFM, DRX, VSM, SQUID) ;
- numerical simulation of magnetization reversal in nanoscale systems (Python software development) ;
- scientific reports and communications ;
- Python language teaching (in Johannesburg) ;
- intern / associate supervision.

Oct. 2015 – August 2016

Research and Teaching Attaché (ATER)

University of Western Brittany, Brest.

During the PhD, practical work and lessons teaching (L1), and lecture in applied optics (L3, photography/video oriented).

Oct. 2012 – Sept. 2015

Teaching Associate

University of Western Brittany, Brest.

During the PhD, practical work and lessons teaching in general physics (L1).

Feb. to June 2012

Research Project

Lab. de Micromagnétisme et Électronique de Spin, IJL, Nancy.

Micromagnetic simulations of magnetic domain motions in nanostripes.

July to August 2011

Research Project

Dept. Chimie et Phys. des Solides et des Surfaces, IJL, Nancy.

Ab initio study of lead adsorption on $Al_{13}Fe_4$ alloy surface.

July 2010 – July 2011

Web development

DIR-Ouest, with the Junior-Enterprise, Nancy.

Development of a web-based software to manage case files for the west roads department.

Oct. 2010 – June 2011

Academic Project

ArcelorMittal Maizière & Mines de Nancy.

Numerical modelling of plastic deformation in dual-phase steel by means of cellular automaton.

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142 rue du Bourg Neuf, 41000 Blois, France

+33 (0)6 33 86 36 78

jerome.richy@mines-nancy.org

arwinj.github.io

Age 28 – Full driving licence

Education

2012 – 2016	**PhD in Material Science** Laboratoire de Magnétisme de Bretagne *University of Western Brittany, Brest*
2009 – 2012	**Bachelor's Degree in Engineering Science** Matériaux fonctionnels *École Nationale Supérieure des Mines, Nancy*
2011 – 2012	**Master's Degree in Condensed Matter** Physique–Plasma–Photonique *Université de Lorraine, Nancy*
Aug to Sept. 2011	**PETRUS training course**, **long-term disposal of radioactive waste** *Pragua, Czech Republic*
2006 – 2009	**Preparatory classes** MPSI–PSI *Lycée Saint-Louis, Paris*

Technical Skills

Growth	RF cathodic sputtering.
Analysis	VVSM and SQUID magnetometry, X-ray diffraction, AFM microscopy, profilometry, TEM.
Programming	Python (numpy, scipy, TkInter, …), Fortran, Java, Web.
Software	LaTeX, Office suite, unix, Linux, Mac.

Communication Skills

French	Native
English	Fluent, spoken and written
German	Intermediary
Spanish	Beginner

Activities

- Photography, home automation, programming.
- Violin, climbing.