



## Europass Curriculum Vitae

### Personal information

**First name(s) / Surname(s)** **Pascal Parois**  
**Address** Lange nieuwstraat 66c  
3512 PL Utrecht (The Netherlands)  
**Mobile** +31 6 2726 3932  
**E-mail(s)** pascal@parois.net  
**Nationality** French  
**Date of birth** 22 May 1981  
**Gender** Male

### Desired employment / Occupational field

**Research scientist (available)**

### Work experience

<b>Dates</b>	January 2010 - December 2011
<b>Occupation or position held</b>	Post doc
<b>Main activities and responsibilities</b>	Software development in small molecules crystallography. Linear transformations of crystallographic parameters: standard uncertainties of transformed parameters. Data quality: Estimation of the variance of the electron density using Monte Carlo simulations.
<b>Name and address of employer</b>	Martin Lutz Padualaan 8, 3584 CH Utrecht (The Netherlands)
<b>Dates</b>	December 2005 - October 2009
<b>Occupation or position held</b>	PhD student
<b>Main activities and responsibilities</b>	Study of the correlation between the structure and the magnetic properties of clusters, chains and single-molecule magnets as a function of pressure. Synthesis of the molecules. High pressure crystallography with a beryllium free DAC using a synchrotron source, high pressure magnetism with a CuBe or a NiCrAl piston cylinder pressure cell using a MPMS.
<b>Name and address of employer</b>	Glasgow university University avenue, G12 0PR Glasgow (United Kingdom)
<b>Dates</b>	February 2005 - June 2005
<b>Occupation or position held</b>	Postgraduate student
<b>Main activities and responsibilities</b>	Organic synthesis of a tris-bipyridinic ruthenium complex for tracing an injectable bone substitute.
<b>Name and address of employer</b>	Université de Nantes 2, rue de la Houssinière, 44322 Nantes (France)
<b>Dates</b>	April 2002 - June 2002
<b>Occupation or position held</b>	Undergraduate student
<b>Main activities and responsibilities</b>	Organic synthesis based on Buchwald research (C-N coupling catalysed by Palladium complex). Reactions were followed by GPC.
<b>Name and address of employer</b>	Rhodia research centre 85, avenue des frères Perret, 69190 St Fons (France)

## Education and training

Dates	12/2005 - 10/2009
Title of qualification awarded	Doctor of Philosophy
Principal subjects / occupational skills covered	The effect of pressure on clusters, chains and single-molecule magnets.
Name and type of organisation providing education and training	Glasgow university (School of chemistry) university avenue, G12 8QQ Glasgow (United Kingdom)
Dates	2004 - 2005
Title of qualification awarded	Master 2 recherche (Postgraduate year following my master in chemistry)
Principal subjects / occupational skills covered	Organic chemistry, pharmaco-chemistry
Name and type of organisation providing education and training	Université de Nantes (Faculté des sciences) 2, rue de la Houssinière, 44322 Nantes (France)
Dates	2000 - 2002
Title of qualification awarded	DUT de chimie (Higher National Diploma in chemistry)
Name and type of organisation providing education and training	IUT A Lyon 1 43, Bd du 11 Novembre 1918, 69622 Villeurbanne (France)
Dates	1998 - 1999
Title of qualification awarded	Baccalauréat série S
Name and type of organisation providing education and training	Lycée Charles de Foucauld 6, rue Bara, 69003 Lyon (France)

## Personal skills and competences

Mother tongue(s) **French**

Other language(s)

Self-assessment  
*European level* (\*)

**english**

**spanish**

Understanding				Speaking				Writing	
Listening		Reading		Spoken interaction		Spoken production			
C2	Proficient user	C2	Proficient user	C2	Proficient user	C2	Proficient user	C2	Proficient user
A1	Basic User	A1	Basic User	A1	Basic User	A1	Basic User	A1	Basic User

(\*) [Common European Framework of Reference \(CEF\) level](#)

Social skills and competences Administrator of <http://blog.debroglie.net> - rpm repository for chemistry softwares;  
Member of the fedora-fr association.

Organisational skills and competences Computer programs project management: subversion, diffusion, bug tracker using the redmine software.

Computer skills and competences Good knowledge on linux environment (archlinux, fedora, centos) ;  
Good knowledge in programming: (X)HTML, PHP & MySQL, LaTeX, Fortran, python;  
scientific softwares used: Brüker suite, crystals, platon, fityk, gnuplot.

Artistic skills and competences Construction of ship models;  
genealogical research (<http://genealogie.parois.net>).

Driving licence(s) B

## Additional information

### Referees:

Dr M Murrie  
Lecturer in Inorganic Chemistry  
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Martin Lutz  
Crystal and Structural Chemistry  
Bijvoet Center for Biomolecular Research  
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3584 CH Utrecht  
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## Annexes

### Publications:

Parois, P. & Lutz, M. Estimation of the variance of the electron density using Monte Carlo simulations. Under writing.

Parois, P. & Lutz, M. Linear transformations of variance/covariance matrices Acta Crystallographica Section A, 2011, 67, 383-390

Parois, P.; Moggach, S. A.; Sanchez-Benitez, J.; Kamenev, K. V.; Lennie, A. R.; Warren, J. E.; Brechin, E. K.; Parsons, S. & Murrie, M. Pressure-induced Jahn-Teller switching in a Mn<sup>12</sup> nanomagnet Chem. Commun., The Royal Society of Chemistry, 2010, 46, 1881-1883

Parois, P.; Moggach, S. A.; Lennie, A. R.; Warren, J. E.; Brechin, E. K.; Murrie, M. & Parsons, S. The effect of pressure on the crystal structure of [Gd(PhCOO)<sub>3</sub>(DMF)]<sub>n</sub> to 3.7 GPa and the transition to a second phase at 5.0 GPa Dalton Trans., The Royal Society of Chemistry, 2010, 39, 7004-7011

Smeets, S.; Parois, P.; Bürgi, H.-B. & Lutz, M. Acta Crystallographica Section B, 2011, 67, 53-62

Lutz, M.; Smeets, S. & Parois, P. Acta Crystallographica Section E, 2010, 66, m671-m672

Galloway, K. W.; Moggach, S. A.; Parois, P.; Lennie, A. R.; Warren, J. E.; Brechin, E. K.; Peacock, R. D.; Valiente, R.; Gonzalez, J.; Rodriguez, F.; Parsons, S. & Murrie, M. CrystEngComm, The Royal Society of Chemistry, 2010, 12, 2516-2519

Moggach, S. A.; Galloway, K. W.; Lennie, A. R.; Parois, P.; Rowantree, N.; Brechin, E. K.; Warren, J. E.; Murrie, M. & Parsons, S. CrystEngComm, The Royal Society of Chemistry, 2009, 11, 2601-2604

### Talks:

January 2012 - Invited speaker, Oxford university. "Estimation of the standard uncertainty of electron density maps using Monte Carlo simulations"