

# Germain Vallverdu

Associate Professor -- PhD in Chemical Physics



10 août 1983, France  
Married, 2 children

## Contact

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IPREM  
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## Theoretical Chemistry

Computational strategy  
Development  
Surfaces, interfaces  
VASP, CRYSTAL (solid)  
Gaussian (molecule)  
DL-POLY, AMBER (dynamic)




## Programming

Fortran, C  
Python  
L<sup>A</sup>T<sub>E</sub>X, HTML/CSS

## Languages

French  
English (Professional)

## On the web

 [orcid.org/0000-0003-1116-8776](https://orcid.org/0000-0003-1116-8776)  
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## Abstract

Assistant professor at the Université de Pau et des Pays de l'Adour, I am a theoretical chemist at IPREM institute (Institute for Analytical sciences and chemical physics applied to environment and materials). My research activities concern the development of new methods and computational strategies at different time or space scales, applied to the investigations of complex systems. I teach mainly chemical-physics subjects and programming languages at the university of Pau.

## Professional Experiences

- since 2010 **Université de Pau et des Pays de l'Adour** Pau, France  
*Associate professor*  
Theoretical chemistry and computational approaches. Surfaces, interfaces, reactivity and molecular interactions.
- 2009–2010 **CEA - DAM** Bruyères le château, France  
*Postdoctoral position*  
Development and implementation of a mesoscopic model for reactive shock waves propagation in heterogeneous systems.
- 2006–2009 **Université Paris-Sud 11** Orsay, France  
*PhD Student*  
Theoretical study of photophysical processes in fluorescent proteins.

## Education

- 2006-2009 **PhD in chemistry** speciality theoretical chemistry Université Paris-Sud 11  
Mention très honorable
- 2004-2006 **Master degree of chemistry** Université Paris-Sud 11  
speciality molecular chemical-physics  
Mention TB
- 2003-2004 **Bachelor Degree of chemical-physics** Université Paris-Sud 11  
Mention TB
- 2003-2006 **Magistère de Physico-Chimie Moléculaire** Université Paris-Sud 11 – ENS Cachan
- 2001-2003 **Undergraduate** physics and chemistry Lycée François Arago, Perpignan

## Main publications

- Quesne-Turin, A. et al. Applied Materials & Interfaces **2018**, Under Review.
- Santos Silva, H. et al. Fuel **2017**, 188, 374–381.
- Vallverdu, G.; Minvielle, M.; Andreu, N.; Gonbeau, D.; Baraille, I. Surface Science **2016**,
- Guille, E.; Vallverdu, G.; Tison, Y.; Bégué, D.; Baraille, I. The Journal of Physical Chemistry C **2015**, 119, 23379–23387.
- Martin, L.; Vallverdu, G.; Martinez, H.; Cras, F. L.; Baraille, I. Journal of Materials Chemistry **2012**, 22, 22063–22071.
- Maillet, J. B.; Bourasseau, E.; Desbiens, N.; Vallverdu, G.; Stoltz, G. EPL (Europhysics Letters) **2011**, 96, 68007.
- Vallverdu, G. et al. Proteins: Structure, Function, and Bioinformatics **2010**, 78, 1040–1054.

## Teaching

- Lectures in chemical-physics, theoretical chemistry, programming languages, in bachelor degrees, master degrees and doctoral school.
- Science popularization: Quantum mechanics, animations for secondary and primary school pupils