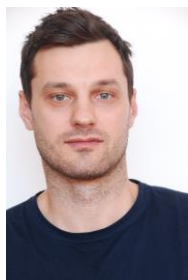


## Curriculum Vitae



### Personal Information

First name(s) / **CALBOREAN**  
Surname(s) **Adrian**  
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Nationality Romanian  
Marital status married  
Date of birth February 14, 1981  
Gender Male

### Domains of activity

Scientific title Scientific Researcher, PhD at Université Joseph Fourier and Commissariat à l'Énergie Atomique et aux Énergies Alternatives (CEA), Grenoble, France.

Keywords Quantum chemical simulations, Solid State Physics modelling, Molecular Electronics, Photochemical Molecular Devices, , Bio-Nano-Sensors, Dip Pen Nanolithography, Medical Engineering, Project Management, Product development, Research & Development

### Domains of competence

- Quantum chemical DFT and TD-DFT in hybrid molecular capacitive devices
- Solid State Physics theory for band structure calculations of bulk semiconductor and conductor surfaces. Molecular dynamics.
- Morphology and local properties of solid body surfaces with high spatial resolution through AFM and STM techniques.
- Dip Pen Nanolithography patterning.
- Management

Domains of Interest Computational Chemistry, Molecular electronics, Bio-nano-sensors, Photo Molecular Devices, Science translational Medicine, Nanolithography, Electrochemistry, Project Management, Product development, Operational/Quality Management, Risk Management, Strategic Management, Human Resources & Work Management

## Education and Training

### Post-doctoral

**PostDoc** - (Quantum Modelling of Hybrid Molecular Architectures) 2012-2013, Babes- Bolyai University, Faculty of Physics, Cluj – Napoca, Romania

**PostDoc** – (Photochemical Molecular Devices) 2009-2010 École Nationale Supérieure de Chimie de Paris (ENSCP), France, Laboratoire d'électrochimie, chimie des interfaces et modélisation pour l'énergie" (LECIME)

### Doctoral

**PhD DIPLOMA** (Computational Chemistry) 2006-2009, Université Joseph Fourier (UJF) of Grenoble and Commissariat à l'Énergie Atomique et aux Énergies Alternatives (CEA) Grenoble, France – *Marie Curie Fellowship, Chemistry and Nanoelectronics European Programme*

**Master DIPLOMA** (Nuclear and Atomic Methods in the Environmental Science), 2004-2005, Babes-Bolyai University, Faculty of Environmental Science, Cluj, Romania, and University of Zaragoza, Faculty of Physics, Spain – *European Union Socrates/Erasmus Fellowship*

### University degree

**Bachelor's DIPLOMA – LICENCE** (Physics Engineering) 1999-2004, Babes- Bolyai University, Faculty of Physics, Cluj – Napoca, Romania.

**Bachelor's DIPLOMA – LICENCE** (Management) 2015-2018, Babes- Bolyai University, Faculty of Economics and Business Administration, Cluj–Napoca, Romania.

### Specializations:

Project Management, Intellectual Property (2007-2008) – European Funding through Marie Curie Program, Grenoble, France

Business Management in the domain of durable development (Nov.2012 - May 2013) – Technical University of Cluj-Napoca, Romania

### Research abroad

Universidad de Zaragoza, Faculty of Physics, Spain (1 year, 2004 - 2005)

Université Joseph Fourier (UJF) of Grenoble and Commissariat à l'Énergie Atomique et aux Énergies Alternatives (CEA) Grenoble, France (3 years, Nov. 2006 – Nov.2009)

École Nationale Supérieure de Chimie de Paris (ENSCP), France (1 year, Dec. 2010- Dec. 2011)

### Work experience

Dates / Occupation or position held/ Name of employer	Since May 2011, Scientific Researcher CSII at National Institute for Research and Development of Isotopic and Molecular Technologies (INCDTIM), Cluj–Napoca, Romania. 2009-2010 Researcher at École Nationale Supérieure de Chimie de Paris (ENSCP), France.
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2006 -2009 Researcher at Commissariat à l'énergie atomique  
CEA/ INSTITUT NANOSCIENCES ET CRYOGÉNIE/Grenoble, France.

**Coordinated research  
contracts**

**National Programs coordinated as director/responsible partner**

**LAPSENS** – Precise Laparoscopic Extraluminal Detection of Colorectal Tumors using Golden-Platinum coated Tacks and Augmented Sensors, UEFISCDI, PN-III-P2-2.1-PED-2016-0783 (2017-2018)

**HINANODET** – Homogenous immunoassay technique based on functionalized nanoparticles. Application to detection of pesticide contaminant 2,4-dichlorophenoxyacetic acid from alimentary and environmental samples, UEFISCDI PN-II-PTPCCA-2011-3.1-0402 (2012-2016)

**PUBLICATIONS**

**Book** - Fundamental Concepts in DFT, Applications in electrochemistry, *Adrian Calborean, Luiza-Buimaga Iarinca, Florin Graur.*

**Publications, total: 34**

Articles published in ISI journals: 27

Articles published in extenso in proceedings of international conferences: 7

**Participation to Scientific Meetings: 41**

International Conferences: 29 (oral, poster)

National Conferences: 9 (oral and poster presentations),

Invited conferences (at international symposiums and universities -France, Belgium, Slovakia: 3

**CITATIONS IN ISI Journals: 217 for 34 publications**

**Index Hirsch: 8** (February 2019)

**Selected Publications**

1. **A. Calborean**, I. Grosu, A. Colnita, D. Marconi, *Journal of Alloys and Compounds*, 747,149-155 (2018) IF - 3.779
2. **A. Calborean**, C. Morari, P. Maldivi, *Journal of Computational Chemistry*, 39 2, 130-138 (2018) IF - 3.221
3. L. Iarinca-Buimaga, N. I. DeNardis, P.T. Vernier, **A. Calborean**, C. Morari, *Journal of Physical Chemistry C*, 120 18 (2016) IF - 4.484
4. **A. Calborean**, F. Martin, D. Marconi, R. Turcu, I.E. Kacso, L. Iarinca-Buimaga, F. Graur, I. Turcu, *Materials Science&Engineering C – Materials for Biological Applications*, 57, 171-180 (2015) IF – 5.08
5. M. Kepenekian, **A. Calborean**, V. Vetere, B. Le Guennic, V. Robert, P. Maldivi, *Journal of Chemical and Computation*, 7 (11), 3532-3539 (2011) IF-5.399
6. E. S. Andreiadis, D. Imbert, J. Pecaut, **A. Calborean\***, I. Ciofini, C. Adamo, R. Demadrille, M. Mazzanti, *Inorganic Chemistry*, 50 (17), 8197-8206 (2011) IF- 4.7

**Mother tongue Romanian**

<b>Other</b>	<b>Self assesment</b>	<b>Understanding</b>	<b>Speaking</b>	<b>Writing</b>
<b>Language (s)</b>				
Language English		Very good	Very good	Very good
Language French		Very good	Good	Good
Language Spanish		Very good	Very good	Good

Date 12<sup>st</sup> February 2019