

Dr Laurent Simon  
PhD, École Normale Supérieure de Lyon

—  
Institut für Geologie und Mineralogie  
Schloßgarten 5 91054 Erlangen, Germany.

—  
phone: +49(0)1719632503  
e-mail: [simon@geol.uni-erlangen.de](mailto:simon@geol.uni-erlangen.de)

Nationality: French  
Date of birth: 24 march 1976  
Place of birth: Avignon (84), France  
Marital situation: single

## Research interests

---

- Dynamics of mass transfer between the main Earth envelopes at the Myr and Gyr time scales through box modelling of elemental and isotopic geochemical cycles (B, C, O, H<sub>2</sub>O);
- Modelling of elemental and stable isotope composition (C, O, N) of animals;
- Stable isotope geochemistry (D/H, <sup>11</sup>B/<sup>10</sup>B, <sup>13</sup>C/<sup>12</sup>C, <sup>18</sup>O/<sup>16</sup>O): analyses in water, carbonates, and silicates, experimental determination of fractionation factors.

## Research activities

---

- Since Oct. 2003 **Postdoctoral position**, Institut für Geologie und Mineralogie, University of Erlangen-Nürnberg, Erlangen, Germany  
*Research project:* Modelling of global geochemical cycles (C, O, B, S) and climate changes during the Paleozoic
- 2002–2003 **Teaching and Research Assistant** (A.T.E.R), Laboratoire “Paléoenvironnements et Paléobiosphère”, University of Lyon, France.  
*Research project:* D/H fractionation between silicates and water

## University studies

---

- 1999–2003 **Ph.D.** in Earth Sciences and Geochemistry, École Normale Supérieure de Lyon: “Some examples of geochemical modelling of the interactions between Earth envelopes” 29 September 2003. Laboratoire “Paléoenvironnements et Paléobiosphère”, University of Lyon. Advisor Pr. C. Lécuyer. Mention très honorable.
- 1998 **Agrégation** of Life and Earth Sciences (french competitive examination for posts on the teaching staff of lycées and universities).
- 1995–99 **Magistère** of Earth Sciences of the École Normale Supérieure de Lyon:  
1998–99: **DEA** (Diplôme d’Études Approfondies, one year preparatory for Ph.D.) of “Magmatic and Metamorphic processes – Volcanology”. University of Clermont-Ferrand, France. Mention bien.  
1995–97: **Licence and Maîtrise** of Geology, Geophysics, and Geochemistry. École Normale Supérieure de Lyon and University of Grenoble, France. Mention assez bien.
- 1993–95 **Classes Préparatoires aux Grandes Écoles**, Biologie Mathématiques Supérieures et Spéciales, in Lyon (preparation for entrance exams of “Grandes Écoles”; advanced level notions in Biology, Earth Sciences, Physics and Maths). Admission to École Normale Supérieure de Lyon.
- 1993 Baccalauréat C (National Degree in Sciences). Mention bien.

## Research projects

---

### Graduate

1998–99      DEA thesis: “Rock – gas interactions at low pressure and low-temperature: consequences on Venus atmosphere evolution”. Laboratoire de Sciences de la Terre, ENS Lyon and Laboratoire Magma et Volcan, Clermont-Ferrand. Advisor: Pr. C. Lécuyer. In collaboration with Dr. J.-M. Montel, I. Daniel and Pr. P. Allemand.

### Undergraduate

April–July 1997      “Paleomagnetism and anisotropy of magnetic susceptibility : Application to Esterel (France) and Ethiopian trapps”. CEREGE, Marseille, France. Advisor: Pr. P. Rochette.

July 1996      “3-D characterization of gravity deposits in Annecy lake: use of side scan sonar and high-resolution seismic reflexion”. LGCA, University of Savoie, Chambéry, France. Advisor: Pr. C. Beck.

## Teaching experience

---

2002–2003      **Teaching Assistant** at the University of Lyon (96 hours):  
– Lectures on Geochemistry and Paleoenvironments, DEA of Paleontology and Sedimentology, 16h; in charge of lecture schedule and examinations.  
– Lectures on Geochemical Cycles, Maîtrise of Earth Sciences, 20h; in charge of lecture schedule and examinations.  
– Practical work on General Geology, Historic Geology, and Cartography.

1999–2002      **Teaching Assistant** at the École Normale Supérieure de Lyon (64 hours/year)  
– Lectures on Geochemistry of Terrestrial Planets, Maîtrise of Earth Sciences, 6h/year.  
– Lectures on Geophysics and Geochemistry, Preparatory class for Agrégation exam, 6h/year.  
– Practical work on General Geology, Historic Geology, Cartography, and Petrology, Preparatory class for Agrégation exam.

## Technical skills

---

– Analysis of stable isotope ratios (D/H,  $^{11}\text{B}/^{10}\text{B}$ ,  $^{13}\text{C}/^{12}\text{C}$ ,  $^{18}\text{O}/^{16}\text{O}$ ) in water, carbonates, and silicates by mass spectrometry.  
– Design and building of glass-metal extraction lines under vacuum for the analysis of stable isotope ratios in gas from geological materials.  
– Mass spectrometry: dual-inlet IRMS (Finnigan DeltaE, Micromass Isoprime), MC-ICP-MS (P54).  
– Work in clean laboratory  
– Ion chromatography  
– Electronic microprobe  
– Externally heated-pressure vessel

## Computing skills

---

- Programming languages: Fortran, C, Matlab
- Database: MySQL
- Document formatting: L<sup>A</sup>T<sub>E</sub>X, XHTML, XML
- Operating systems: Linux, MacOSX
- Network and workstation administration

## Miscellaneous activities

---

2000–2001      Organisation of a monthly scientific debate at the Laboratoire “Paléoenvironnements et Paléobiosphère”, Lyon.

## Languages

---

French:            native language  
English:          good level  
German:          basic knowledge

## Personal interests

---

Sports:            Climbing, alpinism, hiking, skiing, water sports.  
Hobbies:          Photography, cinema.