

NAME	BIARD Pierre-François
BIRTH DATE	April 25, 1983
NATIONALITY	French
ADDRESS	ENSC Rennes CNRS, UMR 6226, Laboratory "Institut des Sciences Chimiques de Rennes" Team "Chimie et Ingénierie des Procédés" 11 allée de Beaulieu CS 50837 35708 Rennes Cedex 7 (France) Tel : 0033 2 2323 8157
PRESENT JOB	Assistant Professor (skills : chemical and environmental engineering – air and water treatment)

◆ EDUCATION

2009	PhD in Chemistry from Rennes 1 University <ul style="list-style-type: none"> • Research team : ENSC Rennes, CNRS, UMR 6226, Team CIP
2006	Master of Research Degree in Water Chemistry and Microbiology <ul style="list-style-type: none"> • Rennes 1 University • Academic rank: 1st
2006	French Engineer's Degree in chemistry and chemical engineering <ul style="list-style-type: none"> • ENSC Rennes (National school of chemistry and chemical engineering of Rennes) • Academic rank in the final year: 2nd

◆ PROFESSIONAL EXPERIENCE

2009-Present	Assistant Professor <ul style="list-style-type: none"> • Technological Institute of Rennes 1 University - Chemistry Department <ul style="list-style-type: none"> ✓ Courses in chemistry and chemical engineering ✓ In charge of the external communication of the chemistry department • ENSC Rennes, CNRS, UMR 6226 <ul style="list-style-type: none"> ✓ Research activities in environmental engineering
2006-2009	PhD researcher <ul style="list-style-type: none"> • Employed by a private company : Veolia Water Research and Innovation <ul style="list-style-type: none"> ✓ Development of a compact air treatment process (odours and VOCs) coupling a chemical scrubber and an advanced oxidation process ✓ Work at the lab and semi-industrial scales ✓ PhD in chemistry delivered by Rennes 1 University
2007-2009	Teaching Assistant in chemical engineering <ul style="list-style-type: none"> • ENSCR : Practical work in chemical engineering • Technological Institute of Lorient : Practical work in chemical engineering
2006 (6 months)	Master degree Trainee <ul style="list-style-type: none"> • ENSC Rennes, CNRS, UMR 6226 <ul style="list-style-type: none"> ✓ Photocatalytic treatment of Volatile Fatty Acids – Competitive effect and mass transfer studies in an annular reactor
2005 (4 months)	Trainee <ul style="list-style-type: none"> • SCK-CEN, Belgium Study Center of the Nuclear Energy <ul style="list-style-type: none"> ✓ Heat exchange study in a mechanically stirred granular bed : application to a contaminated sodium treatment process

◆ TEACHING TOPICS

- **250 to 320 hours of teaching per year**
- **Magisterial courses**
 - ✓ Distillation and rectification
 - ✓ Kinetics
- **Tutorials**
 - ✓ Distillation and rectification
 - ✓ Kinetics
 - ✓ Fluid Mechanics
 - ✓ Vapor-liquid equilibrium
- **Practical courses**
 - ✓ Unit operations (discontinuous and continuous rectification, distillation, liquid-liquid extraction, absorption, ion exchange, filtration, etc.)
 - ✓ Thermal transfer (heat pump, heat exchangers, etc.)
 - ✓ Flowsheet study
 - ✓ Fluid mechanics (fluidization, pressure drop in granular materials, etc.)

◆ RESEARCH TOPICS

- **Gas treatment (VOC and odor) engineering**
 - ✓ Chemical and physical scrubbing
 - ✓ Adsorption on activated carbon
 - ✓ Photocatalytic oxidation on TiO_2
- **Waste water treatment engineering**
 - ✓ Advanced Oxidation Process using the peroxone ($\text{O}_3/\text{H}_2\text{O}_2$) process or heterogeneous catalytic ozonation
 - ✓ Ozonation process
 - ✓ Chlorination kinetics
- **Scientific production**
 - ✓ More than 10 articles published in peer-review journal
 - ✓ More than 10 oral presentations
 - ✓ Regular referee for many journals (Chem. En. J., Env. Sci. Technol., Chem. Eng. Res. Des., Chemosphere, Can. J. Chem. Eng., etc.)