



## PASCAL FLAMENT

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### MAIN ACADEMIC QUALIFICATIONS

1985: PhD Thesis in Spectrochemistry, University of Lille

2004: Habilitation Thesis

### POSTDOCTORAL EXPERIENCE

1986 – 1991: Project Manager « Research and Development », Exide Technologies, Gennevilliers, France.

1991 – 1993: Research Engineer at the French Atomic Energy Commission (CEA), National Agency for Radioactive Waste Management (ANDRA).

### ACADEMIC EXPERIENCE

1993- 2016: Assistant Professor, Université du Littoral - Côte d'Opale (ULCO), France

Since 2016: Full Professor, Université du Littoral - Côte d'Opale (ULCO), France

*Main Research Theme: Pollution Aerosols Physicochemical Dynamics*

### SOME RECENT SIGNIFICANT PUBLICATIONS

#### **Emissions of non-exhaust particles from road traffic under various driving conditions: Implications for sustainable mobility**

A. Beji, K. Deboudt, S. Khardi, B. Muresan, M. Fourmentin, **P. Flament** and L. Lumière  
*Transportation Research Part D: Transport and Environment*, **2020**, 81, 102290, (doi:10.1016/j.trd.2020.102290).

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### **Characterization and source apportionment of single particles from metalworking activities**

J. Arndt, R. M. Healy, A. Setyan, **P. Flament**, K. Deboudt, V. Riffault, L. Y. Alleman, S. Mbengue and J. C. Wenger.  
*Environmental Pollution*, **2021**, 270, 116078 (doi : 10.1016/j.envpol.2020.116078)

### **In-cloud processing as a possible source of isotopically light iron from anthropogenic aerosols: new insights from a laboratory study.**

D.S. Mulholland, **Flament, P.**, de Jong, J., Mattielli, N., Deboudt, K., Dhont, G. and Bychkov, E.  
*Atmospheric Environment*, **2021**, 259, 118505 (doi : 10.1016/j.atmosenv.2021.118505)

### **Laboratory study of iron isotope fractionation during dissolution of mineral dust and industrial ash in simulated cloud water.**

Elena C. Maters, Daniel S. Mulholland, **Pascal Flament**, Jeroen de Jong, Nadine Mattielli, Karine Deboudt, Guillaume Dhont and Eugene Bychkov.  
*Chemosphere*, **2022**, 299, 134472 (doi: 10.1016/j.chemosphere.2022.134472)

### **Development and Characterization of a Time-Sequenced Cascade Impactor: Application to Transient PM2.5 Pollution Events in Urbanized and Industrialized Environments.**

S.H. Ngagine, Deboudt, K., **Flament, P.**, Choël, M., Kulinski, P. and Marteel, F.  
*Atmosphere*, **2022**, 13, 244 (doi:10.3390/atmos13020244).

### **Physical and chemical characteristics of particles emitted by a passenger vehicle at the tire-road contact.**

Asma Beji, Karine Deboudt, Bogdan Muresan, Salah Khardi, **Pascal Flament**, Marc Fourmentin, Laurence Lumiere.  
*Chemosphere*, **2023**, 139874 (doi:10.1016/j.chemosphere.2023.139874).

## **CURRENT RESEARCH PROGRAMS**

**FAAR:** Surface complexation: a key phenomenon in **Fe** Aerosols **A**tmospheric **R**eactivity? French ANR funded Project (2024-2026; 120 k€) – **Scientific Coordinator**

**CaPPA:** Laboratory of Excellence CaPPA – Chemical and Physical Properties of the Atmosphere – funded by the French ANR (2012-2024) – see: <https://www.labex-cappa.fr/en/> - **Co-PI of the Workpackage 3** “Aerosol observations: instrumentation, intensive field campaigns, monitoring from ground-based networks and satellites.”

**ECRIN:** Climate and environmental changes resulting from human activities (French Ministry of Higher Education and “Region Hauts de France” agreement contract 2021-2027)

## **INTERNATIONAL EXPERTISE**

- National Science Foundation (NSF, USA)
- Fonds de Recherche du Québec - Nature et Technologies (FRQNT)