

## Sophie FOURMENTIN-LAMOTTE

Date of birth: 12<sup>th</sup> April 1968

Married, 2 children

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Current position: Distinguished professor in chemistry - Université du Littoral Côte d'Opale (ULCO)  
Adjunct Professor at Aalborg University, Denmark

### Education

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- Sept 2008: Full professor in chemistry - ULCO
- June 2006: HDR (authorisation to supervise research activities) - ULCO
- September 1996: Assistant Professor - ULCO
- 1994: Ph. D in organic chemistry - University of Lille

### Administrative responsibilities

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- 2010-2019: Person in charge of the Supramolecular Chemistry team within the UCEIV
- 2008-2010: Director, Laboratoire de Synthèse Organique et Environnement (LSOE)
- 2012-2016: Member of the scientific board - ULCO
- 2015-2023: Director of the Industrial and Commercial Activities Department (SAIC)
- 2017-2020: Person in charge of the valorization - ULCO.
- since April 2016: Member of the administration board - ULCO

### Research area

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- Development of analytical methods to characterize host/guest inclusion compounds
- Development of innovative remediation technologies taking benefit of cyclodextrins properties (VOC absorption, Fenton oxidation, photocatalysis).
- Encapsulation of bioactive molecules (aroma, essential oils)
- Development of deep eutectic solvents with supramolecular properties

**Key publications** (Total number of publications: 150, h-index: 43, 5273 citations, 14 chapters, 5 books, 1 patent)

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1. C. Gui, P. Villarim, Z. Lei, S. Fourmentin: VOC absorption in supramolecular deep eutectic solvents: Experiment and molecular dynamic studies, *Chem. Eng. J.*, 148708, 2024.
2. J.M. Young, S.H. McCalmont, S. Fourmentin, P. Manesiotis, J.D. Holbrey, L. Moura: A high-throughput experimental approach to screening gas sorption by liquids and solids, *ACS Sustain. Chem. Eng.*, 11, 17787-17796, 2023.
3. J. Petitprez, F.-X. Legrand, C. Tams, J.D. Pipkin, V. Antle, M. Kfoury, S. Fourmentin: Huge solubility increase of poorly water-soluble pharmaceuticals by sulfobutylether- $\beta$ -cyclodextrin complexation in a low-melting mixture. *Environ. Chem. Lett.*, 20, 1561-1568, 2022.
4. P. Villarim, E. Genty, J. Zemmouri, S. Fourmentin: Deep eutectic solvents and conventional solvents as VOC absorbents for biogas upgrading: A comparative study, *Chem. Eng. J.*, 446, 136875, 2022.
5. T. El Achkar, T. Moufawad, S. Ruellan, D. Landy, H. Greige-Gerges, S. Fourmentin: Cyclodextrins: from solute to solvent, *Chem. Comm.*, 56, 3385-3388, 2020.
6. T. Moufawad, L. Moura, M. Ferreira, H. Bricout, S. Tilloy, E. Monflier, M. Costa Gomes, D. Landy, S. Fourmentin: First evidence of cyclodextrin inclusion complexes in a deep eutectic solvent, *ACS Sustain. Chem. Eng.*, 7, 6345-6351, 2019.
7. M. Kfoury, L. Auezova, H. Greige-Gerges, S. Fourmentin: Promising applications of cyclodextrins in food: improvement of essential oils retention, controlled release and antiradical activity, *Carbohydr. Polym.*, 131, 264-272, 2015.