

## PhD course

# CURRICUL VITAE

*Anne Varenne*



## 1 Short CV

### Investigation thematics

Separation sciences, analytical methodology developments and technologies  
Hyphenation of capillary electrophoresis to detection techniques (fluorescence, mass spectrometry, electrochemistry)  
Characterization of nanostructures and nanoplatfroms, biological systems and specific noncovalent complexes for their interests in electrokinetic separation methods, diagnostics, imaging and therapy  
Design of miniaturised total analysis systems (microfluidics, paper-PAD...) for environment and health  
Eco-design and recycling

### Positions

2009 - now Professor, Chimie ParisTech PSL (France)  
1994 - 2009 Associate Professor, Chimie ParisTech PSL  
1997 Postdoctoral research associate, CSIC, Madrid (Spain)  
2019-now Head of the SEISAD Lab (<https://iclehs.fr/research/seisad/>)  
2018-now Director of the Graduate Program in Chemistry of University Paris Sciences and Letters PSL (15 labs, 200 researchers, 200 PhDs, 100 master students (<https://psl.eu/programmes-gradues/programme-gradue-chimie>)  
2016-2018 Deputy Dean of Education of University Paris Sciences and Letters PSL (4500 students)  
2016-2018 Director of the pluridisciplinary bachelor CPES PSL (350 students)  
2009-2015 Deputy Director of Chimie ParisTech PSL (Dean of Education-500 students)  
2015-2022 President of ECOS-Nord France-Mexico, Colombia, Peru and Venezuela scientific programs (Ministry of Foreign Affairs and Ministry of Investigation)

## 2 Bibliometric data

Co-directed 25 doctoral theses, 6 post-doctorants. published more than 100 articles and participated in 1 patent.

### 3 Selection of the 10 most relevant publications on the topics

1. B. Teste, F. Mallogi, J-M Siaugue, A. Varenne, F. Kanoufi, S. Descroix. Microchip integrating magnetic nanoparticles for allergy diagnosis. *Lab on Chip* (2011) 11, 4207-4213 (DOI: 10.1039/C1LC20809H)
2. . Girardot, F. D'Orlyé, S. Descroix, A. Varenne. Aptamer-conjugated nanoparticles : preservation of targeting functionality demonstrated by microchip electrophoresis in frontal mode. *Anal. Biochem* (2013) 435, 150-152 (DOI: 10.1016/j.ab.2012.12.022)
3. .L.Trapiella-Alfonso, G. Ramirez-Garcia, F. d'Orlyé, A. Varenne. Electrokinetic methodologies for the characterization of nanoparticles and the evaluation of their behaviour in biological systems. *Tracs, Trends in Analytical Chemistry* (2016) 84, 121-130. Invited review (DOI: 10.1016/j.trac.2016.04.022)
4. G. Ramírez-García, S. Gutiérrez-Granados, M-A Gallegos-Corona, L. Palma-Tirado, F. D'Orlyé, A. Varenne, N. Mignet, C. Richard, M. Martinez-Alfaro. Long-term toxicological effects of persistent luminescence nanoparticles after intravenous injection in mice. *International Journal of Pharmaceutics* (2017) 532, 686-695 (DOI: 10.1016/j.ijpharm.2017.07.015)
5. G. Duarte-Junior, A. Ismail, S. Griveau, F. d'Orlyé, J-A Fracassi da Silva, W. Coltro , F. Bedioui, A. Varenne. Integrated microfluidic device for the separation, decomposition and detection of low molecular weight S-nitrosothiols. *Analyst* (2019)144, 180-185 (DOI: 10.1039/C8AN00757H)
6. J. Gouyon, F. d'Orlyé, S. Griveau, F. Bedioui, A.Varenne\*. Characterization of home-made graphite/PDMS microband electrodes for amperometric detection in an original reusable glass-NOA®-PDMS electrophoretic microdevice. *Electrochimica Acta* (2020) 135164 (DOI: 10.1016/j.electacta.2019.135164)
7. J. Gouyon, F. d'Orlyé, C. Simon, S. Griveau, C. Sella, L. Thouin, F. Bedioui, A. Varenne. Reversible microfluidics device for precious metal electrodeposition and depletion yield studies. *Electrochimica Acta* (2020) 352, 136474 (DOI: 10.1016/j.electacta.2020.136474)
8. B. De Castro Costa, S. Griveau, F. Bedioui, F. D'Orlyé, JA Fracassi da Silva\*, A. Varenne. Stereolithography based 3D-printed microfluidic device with integrated electrochemical detection. *Electrochimica Acta* (2022), 407, 139888 (DOI 10.1016/j.electacta.2022.139888)
9. F. Espinola-Portilla, F. dOrlye, L. Trapiella-Alfonso, S. Gutierrez-Granados, G. Ramirez-Garcia\*, A. Varenne . Rational Understanding of Loading and Release of Doxorubicin by UV-Light- and pH-Responsive Poly(NIPAM-co-SPMA) Micelle-like Aggregates. *Molecular Pharmaceutics* (2023) 20, 3 1490-1499 (DOI : 10.1021/acs.molpharmaceut.2c00690)- Invited cover (DOI : 10.1021/acs.molpharmaceut.2c00690)
10. H. Silva-Neto, G. Duarte-Junior, D. Rocha, F. Bedioui, A. Varenne, W. Coltro. Recycling 3D printed residues for the development of disposable paper-based electrochemical sensor. *ACS Applied Materials & Interfaces* (just accepted) (DOI : 10.1021/acsami.3c00370 )