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Portuguese.
Born July 20, 1962 in Luanda, Angola.
CNRS Senior Scientist

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## Education

*1980-86* Bachelor in Physics, University of Lisbon. Master in Physics, University of Lyon I.
*1986-89* PhD: Polymers at Interfaces. University of Lyon I.
*1994* Habilitation. University of Strasbourg.

## Professional Career

*1987-89* Teaching assistant at the Ecole Normale Supérieure de Lyon.
*1989-95* CNRS Research Scientist at Institut Charles Sadron, Strasbourg.
*1989-90* Post Doctoral position, Cavendish Laboratory, Cambridge.
*1995-96* Sabbatical leave, University of California in Santa Barbara.
*1996-98* C.N.R.S.-Rhodia-Princeton University Complex Fluid Laboratory, visiting scientist Princeton University.
*1998-21* CNRS Research Scientist, Strasbourg. Senior Scientist since 2002.

## Awards

*1994* Bronze CNRS Medal; *1999* CNRS Equipes Jeunes ACI; *2004* Alsace Research Award.

## Teaching Experience

*1987-89* Condensed Matter and Quantum Mechanics. ENS-Lyon and ULP Strasbourg
*1993* Self-Assembled Systems, Curso de Post-Graduação. USP, Brazil.
*1993-95* Polymer Physics. Ecole Supérieure de Plasturgie, Oyonnax.
*1998* Physics of Membranes, Short Course. Princeton University.
*2004-19* A Random Walk in Soft Land. UNAM, Mexico. USP, Brazil. University of Strasbourg
*1999-19* Kinetics of Soft Matter and Advanced Soft Matter, University of Strasbourg.

## Published > 150 articles, choice of 5

[062] Impact of Polymer Tether Length on Multiple Ligand-Receptor Bond Formation. Jeppesen, C. *et al. Science*, 2001, **293**, 465. A quantitative study of the role of ligand spacers on bio-adhesion.

[081] Photo-induced Destruction of Giant Vesicles in Methylene Blue Solutions. Caetano, W. *et al. Langmuir*, 2007, **23**, 1307. First visualisation of photo-induced oxidation of lipid membranes.

[107] Gel-Assisted Formation of Giant Unilamellar Vesicles. Weinberger, A. *et al. Biophys. J.*, 2013, **105**, 154. The easiest, fastest and most universal giant unilamellar vesicle's growing method.

[110] Enhanced Chemical Synthesis at Soft Interfaces: A Universal Reaction-Adsorption Mechanism in Micro-compartments. Fallah-Araghi, A. *et al. Phys. Rev. Lett.*, 2014, **112**, 028301. Was life born in a droplet?

[113] Polymer collapse in miscible good solvents is a generic phenomenon driven by preferential adsorption Mukherji, D. *et al. Nature Communications*, 2014, **5**, 4882. A counterintuitive simple explanation.

[141] **The Giant Vesicle Book**, Ed. R. Dimova and C. Marques, Taylor and Francis, Sept 2019.

## Present Research

The science of lipid membranes: giant unilamellar vesicles as lipid bilayer plateforms; lipid oxidation; DNA, peptide and nanoparticle interactions with lipid membranes; specific adhesion; reaction-diffusion and confinement ... and also co-non-solvency; fiber compression; pebble erosion ...