

# RESUME

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## Current Position

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### Adjunct Professor

Department of Biophysics, Paulista Medical School, Federal University of São Paulo (UNIFESP), Brazil.

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## Post doc Experience

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### 2011 - 2014: Post doc in Biophysics of Lipids Membranes

University of São Paulo (USP), FAPESP, Brazil.

### 2012 - 2012: Post doc in Micromanipulation of Giant Vesicles

Institute Charles Sadron (ICS), FAPESP, France.

### 2009 - 2010: Post doc in Physical Chemistry of Colloidal Systems

Max Planck Institute of Colloids and Interfaces (MPIKG), CNPq, Germany.

### 2008 - 2009: Post doc in Electrochemistry

Ecole Normale Supérieure de Paris, Université Pierre et Marie Curie, CNRS, France.

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## Education

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### 2004 - 2008: PHD in Physical Chemistry

Chemistry Institute of Federal University of Rio Grande do Sul (UFRGS), Brazil, and Institute Charles Sadron (ICS), France.

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**2002 - 2004: Master Degree in Chemistry of Polymers**

Chemistry Institute of Federal University of Rio Grande do Sul (UFRGS), Brazil.

**1997 - 2001: Graduation in Chemistry**

Chemistry Institute of Federal University of Rio Grande do Sul (UFRGS), Brazil.

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**Teaching Experience**

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**2014 - current:** Cell Biophysics and Human Body Biophysics for undergraduate students (Lecturer). Paulista Medical School at UNIFESP, São Paulo, Brazil.

**2005:** Experimental Organic Chemistry for undergraduate students. Institute of Chemistry at UFRGS, Porto Alegre, Brazil.

**2003:** Organic Chemistry for undergraduate students. Institute of Chemistry at UFRGS, Porto Alegre, Brazil.

**2002:** General Chemistry for 2nd degree students. State High School of Rio Grande do Sul, Porto Alegre, Brazil.

**2001:** Environmental Chemistry for 2nd degree students. Department of Education at UFRGS, Porto Alegre, Brazil.

**2000:** Organic Chemistry for 2nd degree students. Department of Education at UFRGS, Porto Alegre, Brazil.

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**Selected Publications**

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- **"Targeted Drug Delivery and Treatment of Endoparasites with Biocompatible Particles of pH-Responsive Structure"** Biomacromolecules, 19, 499-510, 2018.
- **"Chitosan and lipids composites as versatile biomedical material"** In: Alexandru Grumezescu; Alina Holban. (Org.). Materials for Biomedical Engineering: Nanomaterials-based Drug Delivery. 1ed. Amsterdam: Elsevier. 259-291, 2019.
- **"Interaction of pDNA with reverse phase chitosome"** Colloids and Surfaces A: Physicochemical and Engineering Aspects, 543, 76-82, 2018.
- **"Poly(vinyl alcohol) as a structuring agent for peroxotungstic acid"** Journal of Molecular Liquids, 269, 92-100, 2018.
- **"Molecular phylogeny of the gill parasite Henneguya (Myxosporea: Myxobolidae) infecting Astyanax lacustris (Teleostei: Characidae) from fish farm in Brazil"** Microbial Pathogenesis, 123, 372-376, 2018.
- **"Infestation by Ergasilus coatiarus (Copepoda: Ergasilidae) in two Amazonian cichlids with new host record from Peru: An ectoparasites natural control approach"** Comptes Rendus Biologies, 341, 16-19, 2018.
- **"Morphology and 18S rDNA sequencing of Henneguya peruviana n. sp. (Cnidaria:**

**Myxosporea), a parasite of the Amazonian ornamental fish *Hyphessobrycon loretoensis* from Peru: A myxosporean dispersal approach** *Acta Tropica*, 187, 207-213, 2018.

- **"Dispersion of chitosan in liquid crystalline lamellar phase: production of biofriendly hydrogel of nano cubic topology"** *Carbohydrate Polymers*, 157, 850-857, 2017.
- **"A new Myxidium species (Myxozoa: Myxosporea) infecting the gallbladder of the turtle *Podocnemis unifilis* (Testudines: Podocnemididae) from Peruvian Amazon"** *Acta Tropica*, 172, 75-79, 2017.
- **"Effective protection of biological membranes against photo-oxidative damage: Polymeric antioxidant forming a protecting shield over the membrane"** *Biochimica et Biophysica Acta: Biomembranes*, 1848, 2180-2187, 2015.
- **"Membrane changes under oxidative stress: the impact of oxidized lipids"** *Biophysical Reviews*, 6, 47-61, 2014.
- **"Physical Damage on Giant Vesicles Membrane as a Result of Methylene Blue Photoirradiation"** *Biophysical Journal*, 106, 162-171, 2014.
- **"Insights on the interactions of chitosan with phospholipid vesicles. Part II: Membrane stiffening and pore formation"** *Langmuir*, 29, 1452-14559, 2013.
- **"Insights on the interactions of chitosan with phospholipid vesicles. Part I: Effect of polymer deprotonation"** *Langmuir*, 29, 14545-14551, 2013.
- **"Chitosan Coated Liposomes as an Innovative Nanocarrier for Drugs"** *Journal of Biomedical Nanotechnology*, 8, 240-250, 2012.
- **"Binding of Chitosan to Phospholipid Vesicles Studied with Isothermal Titration Calorimetry"** *Langmuir*, 27, 5506-5515, 2011.
- **"Chitosan as Stabilizer and Carrier of Natural Based Nanostructures"** In: *Nanocosmetics and Nanomedicines: New Approaches for Skin Care*. Berlin: Springer, v. 1, 163-180, 2011.
- **"Electrochemical analysis of the interactions and reactivity of ferrocene-based drugs with a lipid environment: a qualitative overview"** *Inorganica Chimica Acta*, 374, 59-68, 2011.
- **"Interaction between phospholipids bilayer and chitosan in liposomes investigated by <sup>31</sup>P NMR spectroscopy"** *Colloids and Surfaces B: Biointerfaces*, 75, 294-299, 2010.
- **"Further Insights into Hydrophobic Interactions between Ferrocenyl-Tamoxifen Drugs and Non-Polar Molecular Architectures at Electrode Surfaces"** *Journal of Electroanalytical Chemistry*, 635, 13-19, 2009.
- **"Kinetics of thermal inactivation of transglutaminase from a newly isolated *Bacillus circulans* BL32"** *Journal of Chemical Technology and Biotechnology*, 84, 1567-1575, 2009.
- **"Electroformation of giant vesicles from an inverse phase precursor"** *Biophysical Journal*, 96, 2719-2726, 2009.

- **"Chitosan effect on the mesophase behavior of phosphatidylcholine supramolecular systems"** Materials Science and Engineering C: Materials for Biological Applications, 29, 463-469, 2009.
- **"Phospholipid/chitosan self-assemblies analyzed by SAXS and Light Scattering"** Synchrotron Radiation in Materials Science, 1092, 127-129, 2009.
- **"Characterization of soybean phosphatidylcholine purity by  $^1\text{H}$  and  $^{31}\text{P}$  NMR"** Quimica Nova, 31, 1856-1859, 2008.
- **"LUVs recovered with chitosan: a new preparation for vaccine delivery"** Journal of Liposome Research, 17, 155-163, 2007.
- **"Structural evaluation of phospholipidic nanovesicles containing small amounts of chitosan"** Journal of Nanoscience and Nanotechnology, 6, 2425-2431, 2006.
- **"Production of soybean phosphatidylcholine - chitosan nanovesicles by reverse phase evaporation: a step by step study"** Chemistry and Physics of Lipids, 138, 29-37, 2005.
- **"Spray-dried indomethacin-loaded polyester nanocapsules and nanospheres: development, stability evaluation and nanostructure models"** European Journal of Pharmaceutical Sciences, 16, 305-312, 2002.
- **"Comparative study of colloidal dispersions: nanocapsules, nanospheres, nanoemulsion and micelles using dynamic light scattering"** In: New Trends in Polymers for Oral and Parenteral Administration from Design to Receptors. Paris: Editions de Santé, 229-232, 2001.