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## Education

- 2019, Federal University of Pernambuco, Ph.D. in Theoretical Chemistry
- 2013, Federal University of Pernambuco, M.A. in Physical Chemistry
- 2010, Federal University of Bahia, Bachelor in Chemistry

## Academic Employment

— 2019-2021, Federal University of Pernambuco, Núcleo Interdisciplinar de Ciências Exatas e da Natureza, Caruaru, *Post-doc Researcher*, Project: Development and implementation of tools for topological analysis of hydrogen bonds networks in condensed systems. Funded by: Fundação de Amparo à Ciência e Tecnologia do Estado de Pernambuco.

— 2017-2018, Federal University of Pernambuco, Centro de Formação Docente, Caruaru, *Temporary Teacher*, workload: 40h for week.

## Publications

1. OLIVEIRA, P. M. C.; SILVA, J. A. B.; LONGO, R. L. Benchmark, DFT assessments, cooperativity, and energy decomposition analysis of the hydrogen bonds in HCN/HNC oligomeric complexes. *Journal of Molecular Modeling* (Print), v. 23, p. 1-10, 2017. <https://doi.org/10.1007/s00894-017-3235-x>
2. TEIXEIRA, E. S.; NETO, B. B.; OLIVEIRA, P. M.C.; LONGO, R. L. Chemometric analysis of the luminescence quantum yields in lanthanide ion complexes. *Journal of Luminescence*, v. 170, p. 602-613, 2016. <https://doi.org/10.1016/j.jlumin.2014.10.033>
3. OLIVEIRA, P. M. C.; LONGO, R. L.; SILVA, J. A. B. Cooperativity Effects on the Hydrogen Bonds Within HCN and HNC Complexes. *Processos Químicos*, v. 9, p. 186-189, 2015. <https://doi.org/10.19142/rpq.v9i18.295>

## Awards and Honours

2021 – Honour mention from VI Semana de Licenciatura em Química for the paper *O uso da Modelagem Molecular como ferramenta para o estudo da reação de Diels-Alder*.

2012 – Best poster presentation of XXXVIII Congress of Theoretical Chemists of Latin Expression with the work *Adsorption of Sulfur Compounds by Porous Materials*.

## **Grants and Fellowships**

2019-2021 – Development and implementation of tools for topological analysis of hydrogen bonds networks in condensed systems. Researcher Fixation Scholarship, FACEPE.

2014-2019 – Structure and Topological Properties of Hydrogen Bonding Networks in Liquids and Solutions obtained through Born-Oppenheimer Molecular Dynamics. Program First Projects, FACEPE/CNPq.

## **Conferences**

### **Panels organized**

2018 - EXPO 2018. Federal University of Pernambuco, Campus Agreste.

### **Invited speaker**

2021 – VI Semana de Licenciatura em Química. Talk: “Redes Complexas: fundamentos e aplicações em Química Computacional de matéria condensada”. Federal University of Pernambuco, Campus Agreste.

2017 – III Semana de Licenciatura em Química. Talk: “Café e Ciência”. Federal University of Pernambuco, Campus Agreste.

### **Papers presented**

2021 – O uso da Modelagem Molecular como ferramenta para o estudo da reação de Diels-Alder. VI Semana de Licenciatura em Química. ISBN: 978-65-5941-204-4.

2014 – Topological Properties and Island Statistic of Hydrogen Bond Networks in liquid HCN. XIII Encontro da SBPMat. ISBN: 978-85-63273-25-3.

### **Posters presentations**

2020 – A complex networks analysis of water: Describing network dependence over temperature change. LatinXChem Twitter Conference.

2020 – A complex networks analysis of water: Describing network dependence over temperature change. NetSci Rome.

2018 – Modelos Geométricos de Baixo Custo. IV Mostra SELIQUI.

2015 – Cooperativity Effects on the Hydrogen Bonds within HCN and HNC Complexes. XVIII SBQT.

2014 – Topological Properties and Island Statistic of Hydrogen Bond Networks in liquid HCN. XIII SBPMat.

2013 – Computational Study of the Adsorption of Thiophene in Zeolites by Hybrid Methods. Amber Workshop Brazil.

2012 – Adsorção de Compostos Sulfurados em Materiais Porosos. X Workshop em Física Molecular e Espectroscopia.

2012 – Chemometric analysis of the luminescence quantum yields of lanthanide complexes. XXXVIII Congress of Theoretical Chemists of Latin Expression.

2012 – Adsorption of Sulfur Compounds by Porous Materials. XXXVIII Congress of Theoretical Chemists of Latin Expression.

### **Oral presentations**

2020 – Desenvolvimento e implementação de ferramentas para análise topológica de redes de ligações de hidrogênio em líquidos, misturas e soluções. Seminário Pós-Doc 2020.

2015 – Hydrogen Bonding Cooperativity Study: From Quantum Chemical Calculations to Ab initio Simulations of Liquid Systems. I Advanced School on Bimolecular Simulation.

2010 – Estrutura Eletrônica e Estados Vibracionais do Monóxido de Carbono. IV Encontro de Química da Bahia.

### **Teaching Experiences**

2021 – Teacher of the discipline Physical Chemistry II for the Chemistry undergraduate course of the Federal University of Pernambuco.

2017-2018 – Temporary Teacher in the semesters 2017.1, 2017.2, 2018.1 and 2018.2 for the undergraduate courses of Chemistry, Mathematics and Physics. Núcleo de Formação Docente of Campus Agreste from Federal University of Pernambuco.

2014 – Teaching Internship during semesters 2014.1 and 2014.2 in the discipline General and Experimental Chemistry I for the Departamento de Química Fundamental of Federal University of Pernambuco.