

## THAMIRES LIMA

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- POSTDOCTORAL**      **Beckman Institute for Advanced Science and Technology, University of Illinois at Urbana-Champaign (UIUC), Illinois, USA.**  
*Project: Studying the dynamics of glass forming ionic liquids by neutron and x-ray scattering.*
- Chemistry Institute, University of Sao Paulo, Sao Paulo, Brazil.**  
*Project: Raman spectroscopy study of the glass transition of the ionic liquids under high pressure.*
- EDUCATION**      **PhD      Physics at Federal University of ABC      2014**  
*Thesis: Boson peak and dynamical transitions in hydrated amino acids.*
- Master      Physics at Federal University of ABC      2010**  
*Thesis: Anharmonic transition in L-Cysteine: the role of phonon-phonon interactions.*
- BS      Physics at Federal University of Sergipe      2008**
- RESEARCH INTERESTS**      *glass, crystal and melting transitions, extreme conditions (low-temperature and high pressure), ionic liquids and boson peak study.*
- PUBLICATIONS**      [1] **Lima, T. A.**; Paschoal, V. H.; Faria, L. F. O.; Ribeiro M.C.C. *Unraveling the Stepwise Melting of an Ionic Liquid*. Journal of Physical Chemistry B, v. 121, p. 4650, 2017.
- [2] **Lima, T. A.**; Paschoal, V. H. ; Faria, L. F. O. ; Ribeiro, M. C. C. ; Ferreira, F. F. ; Costa, F. N. ; Giles, C.. *Comparing two tetraalkylammonium ionic liquids. II. Phase transitions*. The Journal of

Chemical Physics, v. 144, p. 224505, 2016.

- [3] **Lima, T. A.**; Paschoal, V. H. ; Faria, L. F. O. ; Ribeiro, M. C. C. ; Giles, C. Comparing two tetraalkylammonium ionic liquids. I. Liquid phase structure. The Journal of Chemical Physics, v. 144, p. 224504, 2016.
- [4] Ishikawa, M. S.; **Lima, T. A.** ; Ferreira, F. F.; Martinho, H. S.. *Unusual specific heat of almost dry L-cysteine and L-cystine amino acids*. Physical Review. E, Statistical, Nonlinear, and Soft Matter Physics (Print), v. 91, p. 032709, 2015.
- [5] **Lima, T. A.**; Ishikawa, M. S. ; Martinho, H. S.. *Boson peak as a probe of quantum effects in a glassy state of biomolecules: The case of L-cysteine*. Physical Review. E, Statistical, Nonlinear, and Soft Matter Physics (Print), v. 89, p. 022715, 2014.
- [6] **Lima, T. A.**; Sato, E T ; Martins, E T ; Homem-de-Mello, P ; Lago, A F; Coutinho-Neto, M D ; Ferreira, F F ; Giles, C ; Pires, M O C ; Martinho, H . *Anharmonic transitions in nearly dry l-cysteine I*. Journal of Physics. Condensed Matter (Print), v. 24, p. 195104, 2012.

## APOINTEMENTS

### Teacher's Assistant:

University of São Paulo, Brazil, Course: Chemistry,  
Subject: Physical Chemistry (2015).

Federal University of ABC, Brazil, Course: Physics,  
Subject: Molecular and Atomic Interactions (2013).

Federal University of ABC, Brazil, Course: Physics,  
Subject: Electromagnetic Phenomena (2013).

Federal University of ABC, Brazil Course: Physics  
Subject: Optics (2009)

## PRESENTATIONS AT SCIENTIFIC CONFERENCES

Boson peak and fast relaxation process in ionic liquids at isobaric and isothermal conditions. 2016. 4th International Soft Matter Conference (4Th ISMC) Grenoble, France.

Phase transitions in ionic liquids: A study by Raman spectroscopy, x-ray diffraction and differential scanning calorimetry. 2016, XXV

International Conference on Raman Spectroscopy (ICORS2016), in Fortaleza, Brazil.

Ionic Liquids dynamical study by low-frequency Raman spectroscopy. 2015. IV Encontro Brasileiro de Espectroscopia Raman (IV Brazilian Meeting of Raman Spectroscopy), in Juiz de Fora, Brazil.

Boson peak as probe of quantum effects in glassy state of biomolecules: The case of L-cysteine. 2014. Physics of Liquid Matter Modern Problems, in Kiev, Ukraine.

Quantum fluctuations, the Boson Peak and the glassy state of biomolecule. 2013. I Encontro dos Usuários da Central Experimental Multiusuários (I Experimental central multiuser Meeting), Santo André, Brazil.

Boson peak in L-cysteine: a Raman scattering study. 2012. March Meeting, in Boston, USA.

Anharmonic transitions in L-Cysteine: a study by Raman spectroscopy, X-Ray Diffraction and computer simulations. 2011. XX Latin American Symposium on Solid State Physics (SLAFES), in Maragogi, Brazil.

Anharmonic transitions in L-Cysteine: a study by Raman spectroscopy, X-Ray Diffraction and molecular dynamics. 2010. 3<sup>o</sup> International Workshop on Spectroscopy for Biology.

Anharmonic transitions in L-Cysteine: a study by Raman spectroscopy, X-Ray Diffraction and molecular dynamics. 2009. I Encontro Brasileiro De Espectroscopia Raman (Brazilian Meeting of Raman Spectroscopy). São Pedro, Brazil.

Stability study, synthesis and characterization of the different geometrical shapes of the silver nanoparticles. 2008. XIII Encontro Sergipano de Física. (XIII Sergipano Meeting of Physicists), Sergipe, Brazil.

Morfological modification of silver nanoparticles by photostimulation. 2007. XII Encontro Sergipano de Física (XII Sergipano Meeting of Physicists), Sergipe, Brazil.

Synthesis and characterization of triangular silver nanoparticles. 2007. XXV Encontro de Físicos do Norte e Nordeste. (XXV North and Northeast Meeting of Physicists) Sergipe, Brazil.

**ORGANIZATION  
OF SCIENTIFIC  
CONFERENCES**

School of vibrational Spectroscopy (VIBROS III - Curso de Espectroscopia Vibracional Prof. Oswaldo Sala - Vibrational Spectroscopy Course Prof. Oswaldo Sala). 2015. Universidade de São Paulo - USP, São Paulo, Brazil

Demonstration of physics experiments in XIII Sergipe Meeting of Physicists (Show de Física - XIII Encontro Sergipano de Física). 2008.