

# LUIZ TADEU FERNANDES ELENO

## Curricular Summary

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### CONTACT INFORMATION

Title+Name	Prof. Dr. Luiz Tadeu Fernandes Eleno
Address	Pólo-Urbo Industrial, Gleba AI-6, s/n° EEL-USP (área II) CEP: 12 602-810 — Lorena/SP, Brazil
Phone	+55 12 3159 9810
E-mail	<a href="mailto:luizeleno@usp.br">luizeleno@usp.br</a>
Place & date of birth	São Paulo/SP, Brazil, October 1st, 1976
Professional field	Computational Materials Science & Engineering

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### 1. EDUCATION

Year of completion	Title	Institution
2001	Metallurgical Engineering (Undergraduate degree)	EP-USP <sup>(a)</sup>
2003	MSc in Materials Science & Engineering	EP-USP <sup>(a)</sup>
2012	PhD in Materials Science & Engineering	EP-USP <sup>(a)</sup>
2014	Post-Doctorate in Physics of Materials	IF-USP <sup>(b)</sup>

<sup>(a)</sup> Polytechnic School, University of São Paulo

<sup>(b)</sup> Institute of Physics, University of São Paulo

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### 2. PROFESSIONAL HISTORY

#### • EEL–USP

**Period:** from May 2014 (current)

**Activity:** Professor Doctor

**Institution:** Lorena School of Engineering, University of São Paulo (EEL–USP), Lorena, Brazil

#### • CIRIMAT/ENSIACET

**Period:** from March to August 2008

**Activity:** Invited researcher

**Institution:** ENSIACET (*École Nationale Supérieure des Ingénieurs en Arts Chimiques et Technologiques*) and CIRIMAT (*Centre Interuniversitaire de Recherche et d'Ingénierie des Matériaux*), Toulouse, France

#### • Max-Planck-Institut für Eisenforschung

**Period:** from September 2003 to February 2008

**Activities:** Researcher

**Institution** Max-Planck-Institut für Eisenforschung, Düsseldorf, Germany

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### 3. MOST RELEVANT SCIENTIFIC RESULTS

**Note:** number of citations extracted from the Researcher ID website as of March 6, 2019.

#### Selected recent publications

- [1] V. O. dos Santos, M. A. Tunes, L. Eleno, C. G. Schön, K. W. Richter. “Experimental investigation of phase equilibria in the Nb–Ni–Si refractory alloy system at 1073 K”. *Scripta Materialia* 164 (2019), pp. 96–100. DOI: [10.1016/j.scriptamat.2019.01.026](https://doi.org/10.1016/j.scriptamat.2019.01.026).
- [2] P. P. Ferreira, F. B. Santos, A. J. S. Machado, H. M. Petrilli, L. Eleno. “Insights into the unconventional superconductivity in HfV<sub>2</sub>Ga<sub>4</sub> and ScV<sub>2</sub>Ga<sub>4</sub> from first-principles electronic-structure calculations”. *Physical Review B* 98 (2018), p. 045126. DOI: [10.1103/physrevb.98.045126](https://doi.org/10.1103/physrevb.98.045126).
- [3] P. Ferreira, T. Dorini, F. Santos, A. Machado, L. Eleno. “Elastic anisotropy and thermal properties of extended linear chain compounds MV<sub>2</sub>Ga<sub>4</sub> (M = Sc, Zr, Hf) from ab-initio calculations”. *Materialia* 4 (2018), pp. 529–539. DOI: [10.1016/j.mtla.2018.11.008](https://doi.org/10.1016/j.mtla.2018.11.008).
- [4] A. J. S. Machado et al. “Evidence for topological behavior in superconducting Cu<sub>x</sub>ZrTe<sub>2-y</sub>”. *Physical Review B* 95 (2017), p. 144505. DOI: [10.1103/PhysRevB.95.144505](https://doi.org/10.1103/PhysRevB.95.144505). (6 citations).
- [5] R. Igarashi, I. Miranda, L. T. F. Eleno, A. Klautau, H. M. Petrilli. “Noncollinear magnetism of Mn nanowires on Fe(110)”. *Journal of Physics: Condensed Matter* 28 (2016), p. 326001. DOI: [10.1088/0953-8984/28/32/326001](https://doi.org/10.1088/0953-8984/28/32/326001). (3 citations).
- [6] L. T. F. Eleno, L. A. Errico, H. M. P. P. G. Gonzales-Ormeño, C. G. Schön. “Ordering phase relationships in ternary iron aluminides”. *Calphad* 44 (2014), pp. 70–80. DOI: [10.1016/j.calphad.2013.06.009](https://doi.org/10.1016/j.calphad.2013.06.009). (6 citations).

#### Highlighted publications

- [1] L. Eleno, J. Veselý, B. Sundman, M. Cieslar, J. Lacaze. “Assessment of the Al corner of the ternary Al–Fe–Si system”. *Materials Science Forum* 649 (2010), pp. 523–528. DOI: [10.4028/www.scientific.net/MSF.649.523](https://doi.org/10.4028/www.scientific.net/MSF.649.523). (22 citations).
- [2] R. Schmid-Fetzer, D. Andersson, P. Chevalier, L. Eleno, O. Fabrichnaya, U. Kattner, B. Sundman, C. Wang, A. Watson, L. Zabdyr, M. Zinkevich. “Assessment techniques, database design and software facilities for thermodynamics and diffusion”. *Calphad* 31 (2007), pp. 38–52. DOI: [10.1016/j.calphad.2006.02.007](https://doi.org/10.1016/j.calphad.2006.02.007). (91 citations).
- [3] L. Eleno, K. Frisk, A. Schneider. “Assessment of the Fe–Ni–Al system”. *Intermetallics* 14 (2006), pp. 1276–1290. DOI: [10.1016/j.intermet.2005.11.021](https://doi.org/10.1016/j.intermet.2005.11.021). (66 citations).
- [4] R. Fischer, L. Eleno, G. Frommeyer, A. Schneider. “Precipitation of Cr-rich phases in a Ni–50Al–2Cr (at.%) alloy”. *Intermetallics* 14 (2006), pp. 156–162. DOI: [10.1016/j.intermet.2005.04.017](https://doi.org/10.1016/j.intermet.2005.04.017). (11 citations).

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## 4. CURRENT FINANCIAL GRANTS

**CNPq Universal:** “Estudo ab initio da estabilidade de compostos intermetálicos” (*Ab initio study of inter-metallic compound stability*). Projeto CNPq Universal no. 405617/2018-6. Amount: R\$ 22 000,00  
Scope: code license acquisition *software* (VASP and WIEN2k). Duration: 02 2019 to 01 2021.

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## 5. ONGOING SUPERVISIONS

**Pedro Pires Ferreira:** “Ab-initio investigation of electronic and phononic properties of superconducting TMDs.” Master project, Grant FAPESP nº 2018/10835-6.

**Igor Hideki Cabianca Yamamoto :** “Ab initio determination of mechanical and magnetic properties of the hexagonal C14 Laves phase Fe<sub>2</sub>Ti”. Undergrad project (iniciação científica) FAPESP, Grant number: 18/18934-3.

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## 6. ACADEMIC QUANTITATIVE INDICATORS

**Books:** 0

**Publications in journals with selective editorial policy:** 25

**Book chapters:** 0

**Supervised and concluded Master’s dissertations:** 0

**Supervised and concluded Doctoral theses:** 0

**Number of citations:** 265 (Researcher ID)

**h-index:** 8 (Researcher ID)

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## 7. LINKS TO RESEARCH AGGREGATORS

**Plataforma Lattes:** <http://lattes.cnpq.br/2806024249023699>

**Researcher ID:** <http://www.researcherid.com/rid/P-4687-2018>

**ORCID:** <https://orcid.org/0000-0002-3117-5116>

**Google Scholar:** <https://scholar.google.com.br/citations?user=V4ycRTQAAAAJ>

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## 8. OTHER RELEVANT INFORMATION

**Reviewer** for the following journals: *Intermetallics*; *Journal of Phase Equilibria and Diffusion*; *Journal of Alloys and Compounds*; *Materials Letters*.

**Co-organizer** of the international conference *TOFA 2016 — Discussion Meeting on Thermodynamics of Alloys*, held in Santos, Brazil, September 04–09, 2016 (<http://tofa2016.poli.usp.br/>)

**Magazine article** “Entropia social: uma termovisão de mundo” (Social entropy: a thermal worldview). *Conhecimento Prático Filosofia* 30 (2011), pp.54–61.

**Prize:** José Ermírio de Moraes Prize for the best graduation work in Metallurgical Engineering with the monograph “*Cálculo por CVM do diagrama de fases do sistema Co–Cr–Al CCC*” (Cluster Variation Method calculation of the bcc Co–Cr–Al phase diagram), 2001.