**Lead institution:** Instituto de Pesquisas Energéticas e Nucleares  
**Work Address of the position:** Avenida Lineu Prestes, 2242  
Cidade Universitária  
São Paulo - SP  

<table>
<thead>
<tr>
<th>Supervisor name</th>
<th>Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thiago Lopes</td>
<td>CCCH</td>
</tr>
</tbody>
</table>

**Recipient:** [www.usp.poli.rcgi.br/opportunities](http://www.usp.poli.rcgi.br/opportunities)  
17MSc016  

| Type | Period: 01/2018 to 12/2019  
Number of months: 24 |
|------|----------------|

**Project title:** (Portuguese and English)  
“Elucidando a Função de Metais de Transição na Formação de Sítios Ativos em Eletrocatalisadores Sustentáveis”  
“Understanding the Role of Transition Metals in the Formation of Active Sites in Carbon-based Electrocatalysts”

**Research theme area:** (Portuguese and English)  
Sistemas Eletroquímicos de Interconversão entre Energias; Reações de Redução.  
Electrochemical Systems for Energy Interconversion; Reduction Reactions.

**Abstract (Portuguese and English)**  
“O objetivo desta bolsa é treinar um excelente aluno na área de eletrocatalise e nanomateriais. Os estudos experimentais focam em elucidar a função de metais de transição, na formação e atividade eletrocatalítica, de sítios ativos em eletrocatalisadores baseados em carbono. Esta bolsa de mestrado faz parte de um projeto Jovem Pesquisador FAPESP dentro do RCGI.”  
“The aim of the present master position is to train a highly skilled individual in the area of electrocatalysis and nanomaterials. The experimental work shall be devoted to the understanding of the role of transition metals in the formation and activity, of active sites in carbon-based electrocatalysts. This master scholarship is part of a FAPESP Young Investigator project within RCGI.”

**Description**  
The present master position is suited for a highly skilled individual willing to develop research and innovation in the area of sustainable energies. Specifically, the workplan of the present position is devoted to advancing electrochemical systems for energy interconversion by an emerging cutting-edge field in electrocatalysis, based on carbon nanostructures. The present position aims to create the conditions for the selected candidate to obtain a high-level master dissertation, and to lead the individual to be highly skilled in research and scientific writing. Being successful, these outcomes would lead the master student to suitably reach the next step in the professional career, independently if in industry of academia.

**Requirements to fill the position. (Ex: specific experience, minimum or maximum years after concluding the course)**  
A self-motivated and interested individual will be selected for this scholarship. The present position would suite a student with a suitable organic-chemistry and/or chemistry engineering and/or materials engineering and/or physics background, who is familiar with nanostructured polymers and materials science. The student should hold a bachelor degree in chemistry/materials related sciences – candidates completing undergrad studies within this year (2017) are also highly welcome to apply for this position.