

To whom it may concern

Recife, June 9th, 2015.

Mr. José Luis Lima de Jesus Silva is desiring to apply his candidature to the Position as PhD Student in Physics Regarding First-principles Studies of Energy Materials at Uppsala University (Department of Physics and Astronomy).

I am Associate Researcher at the North-East Center for Strategic Technologies (CETENE) in Recife and I lead a research group studying self-assemble thin films, and TiO_2 , Ta_2O_5 nanotubes and alloys Ti-Ta and Ti-Nb nanotubes for the development of photocatalytic materials to apply in solar energy conversion. In these last five years, several works in our laboratory were published in order to manufacture nanostructured films with dye nanoparticle to generate hydrogen by water splitting method. In this area some collaboration were initiated with Brazilian research groups such as Institute of Physics of UFBA. As a result of this collaboration we had the Master in Physics of José Luis, which I had the opportunity to follow the student's path.

During this period José Luis demonstrated a mature view on science, his collaboration is resulting in significant accomplishments in the studies for computational works. He works completely independently, starting from conception of the idea, through experimental execution, results interpretation and writing of publications. His work is very careful, well planned and always most reliable.

In summary, I believe that José Luis is benefiting greatly from research experience at UFBA, and I know that we are benefiting greatly from his presence among us. For these reasons, I enthusiastically recommend Mr. José Luis Lima de Jesus Silva as an outstanding student who has potential to undertake Doctoral studies at Uppsala University. I am confident that his doctoral research will be very successful.

Sincerely yours,



Dra. Giovanna Machado

Associate Researcher
Centro de Tecnologia Estratégica do Nordeste- CETENE
E-mail: giovanna.machado@cetene.gov.br
Tel. (+5581-33347232)

Campus Tecnológico Regional do MCT - Nordeste

Av. Prof. Luiz Freire, nº. 01 - Cidade Universitária | CEP: 50740-540 | Recife – PE

Telefone/Fax: (+5581) 3334-7232- www.cetene.gov.br