

# LUCIO RODRIGO ALEJO VARGAS

## Chemical Engineer

@ lucio.alejo@outlook.com  
Stockholm, Sweden

@ lrav@kth.se  
lrav

+46 0738398924

Forskarbacken 21, lgh 1501



## EXPERIENCE

### Research Engineer

#### Kungliga Tekniska Högskolan (KTH)

January 2021 – January 2022 Stockholm, Sweden

- Developed process models for biomass pyrolysis and gasification.
- Transportation fuels production via bio-oil hydrodeoxygenation.
- Hydrogen generation from thermo-chemical conversion.
- Process modeling of post combustion CO<sub>2</sub> capture system.
- Techno-economic analysis of above process routes.
- Process simulation software used: Aspen Plus and Aspen Hysys.

### Transport Phenomena Laboratory Assistant

#### Kungliga Tekniska Högskolan (KTH)

February 2021 – March 2021 Stockholm, Sweden

- Laboratory Assistant for the KE1170 Transport Phenomena course.
- In charge of heat and mass transfer theory and practice.
- Teaching and managing several student groups at laboratory.

### Research Assistant

#### Center of Agroindustrial Technology (CTA)

May 2016 – May 2017 Cochabamba, Bolivia

- Production of essential oil from Schinus Molle at pilot plant.
- Measurement of physicochemical properties of essential oil.

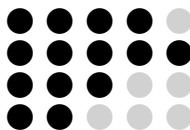
## SKILLS

AutoCad

Aspen Hysys, Aspen Plus, Microsoft Office

Matlab, Python

COMSOL Multiphysics, Ansys Fluent



## PROJECTS

Analysis of Negative emission Ammonia Fertilizer (urea) process

Kungliga Tekniska Högskolan (KTH) in collaboration with Gas Technology Department, SINTEF Energy.

Jan 2020 – Dec 2020

Process simulation and analysis of negative emissions in ammonia fertilizer production through CCS.

Processes for fuel production via deoxygenated bio-oil  
Swedish Energy Agency, f3's parties, Chalmers, Cortus Energy AB and Kungliga Tekniska Högskolan (KTH)

Jan 2021 – Dec 2021

## HONOURS & AWARDS



### Post graduate Scholarship

Awarded with a Post graduate Scholarship by the Ministry of Education of Bolivia to pursue a Master degree.



### Erasmus Mundus Lindo Scholarship

Awarded with an Undergraduate Erasmus Scholarship for the period of one semester at Uppsala University

## STRENGTHS

Hard-working

Technical & Analytical skills

Detail-oriented

Problem solving

Adaptability

Perseverance

Decision making

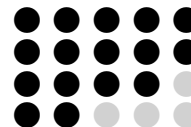
## LANGUAGES

Spanish

English

French

Swedish



## EDUCATION

M.Sc. in Energy and Environment

Kungliga Tekniska Högskolan (KTH)

Aug 2018 – Dec 2020

Thesis title: Analysis of Negative emission Ammonia Fertilizer (urea) process

B.Sc. in Chemical Engineering

Universidad Mayor de San Simon (UMSS)

Feb 2011 – Sept 2016

## REFERENCES

Assistant Professor Shareq Mohd Nazir

@ Kungliga Tekniska Högskolan (KTH)

smnazir@kth.se

Energy Processes, Teknikringen 42, KTH

Professor Klas Engvall

@ Kungliga Tekniska Högskolan (KTH)

kengvall@kth.se

Process Technology, Teknikringen 42, KTH