



# Enhanced silicate weathering as climate change solution

Prof Sara Vicca

Laura Steinwider

Thesis topic suggestion

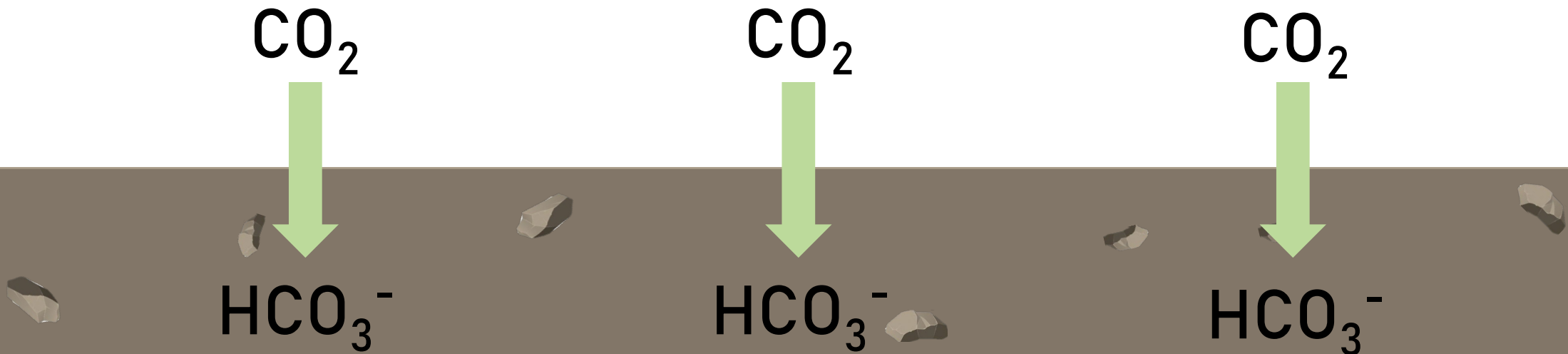
[laura.steinwider@uantwerpen.be](mailto:laura.steinwider@uantwerpen.be)

# How does enhanced weathering work?

1 Application of ground silicates on agricultural soils



2 During the weathering process - CO<sub>2</sub> is captured  
- beneficial nutrients are released



# What is the aim of this thesis?

Depending on your interests:

1

Study interactions between enhanced weathering and soil biota:

- Mycorrhizae fungi
- Plant growth promoting bacteria (bacillus subtilis)

OR/AND

2

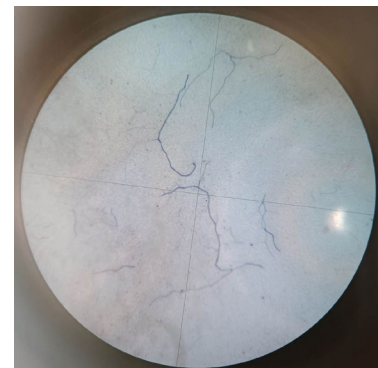
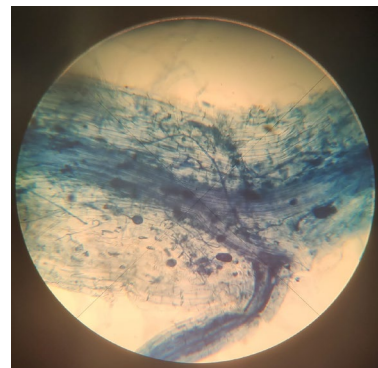
Study interactions between enhanced weathering and soil organic carbon



# How are those aims reached?

Experimental work is finished → mostly lab work

- Evaluation of hyphal length density and root colonization of mycorrhizal fungi
- Sequential extraction to determine weathering rates and carbon capture
- Density and size separation of soil organic matter
- ...



# Interested?

- Find more info on our homepage:  
<https://www.uantwerpen.be/en/research-groups/sustain/research/laboratories/climate-solutions/>
- Contact us: [laura.steinwiddler@uantwerpen.be](mailto:laura.steinwiddler@uantwerpen.be)