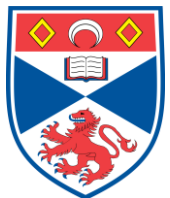
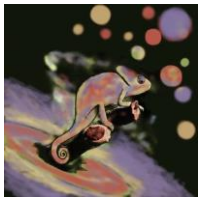


Nanna Bach-Møller – 1st year PhD student in CHAMELEON
Supervisors: Uffe Gråe Jørgensen and Christiane Helling (ÖAW)



*Charging processes and cloud
formation in exoplanet
atmospheres*

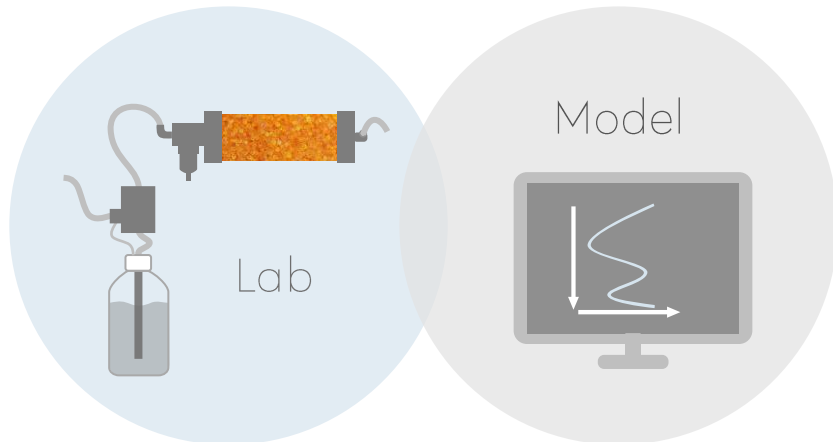


What am I doing?

Current research questions

How do ionization processes affect clouds and the chemistry of exoplanet atmospheres?

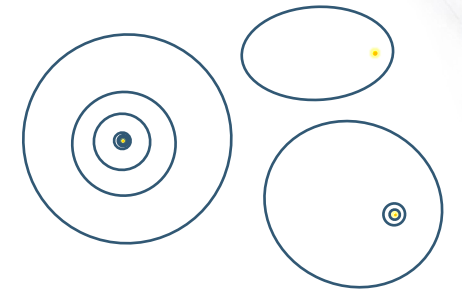
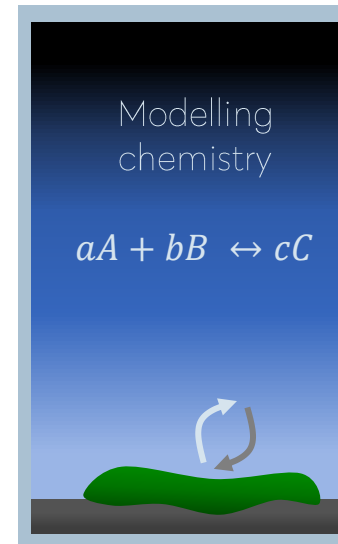
And how does this affect the formation of prebiotic molecules in cloud droplets?



What did I do?



Model biosignatures



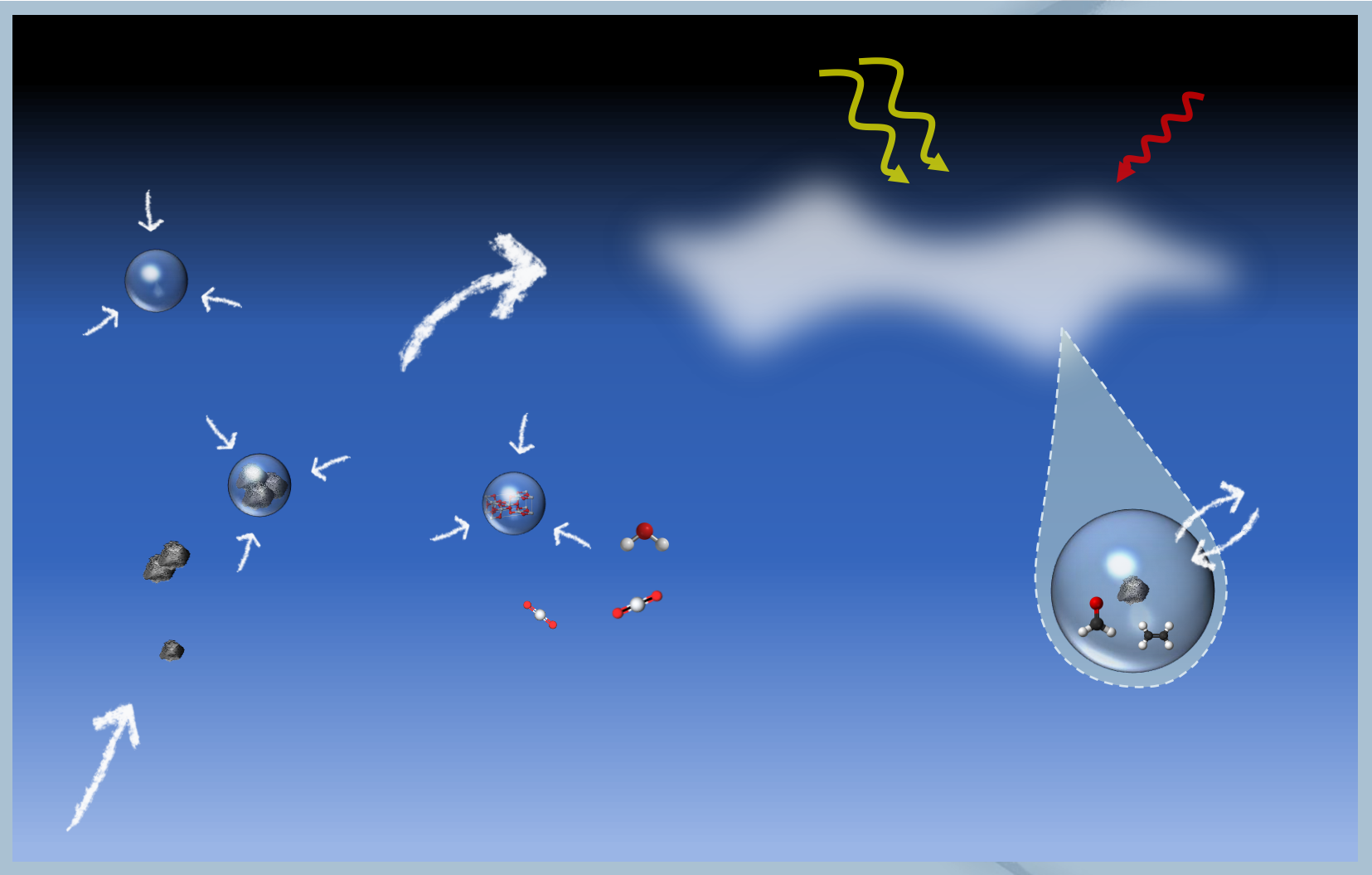
Architecture of planetary systems

Multicultural biofilm



“Charging processes and cloud formation in exoplanet atmospheres”

Cloud formation



Ionization

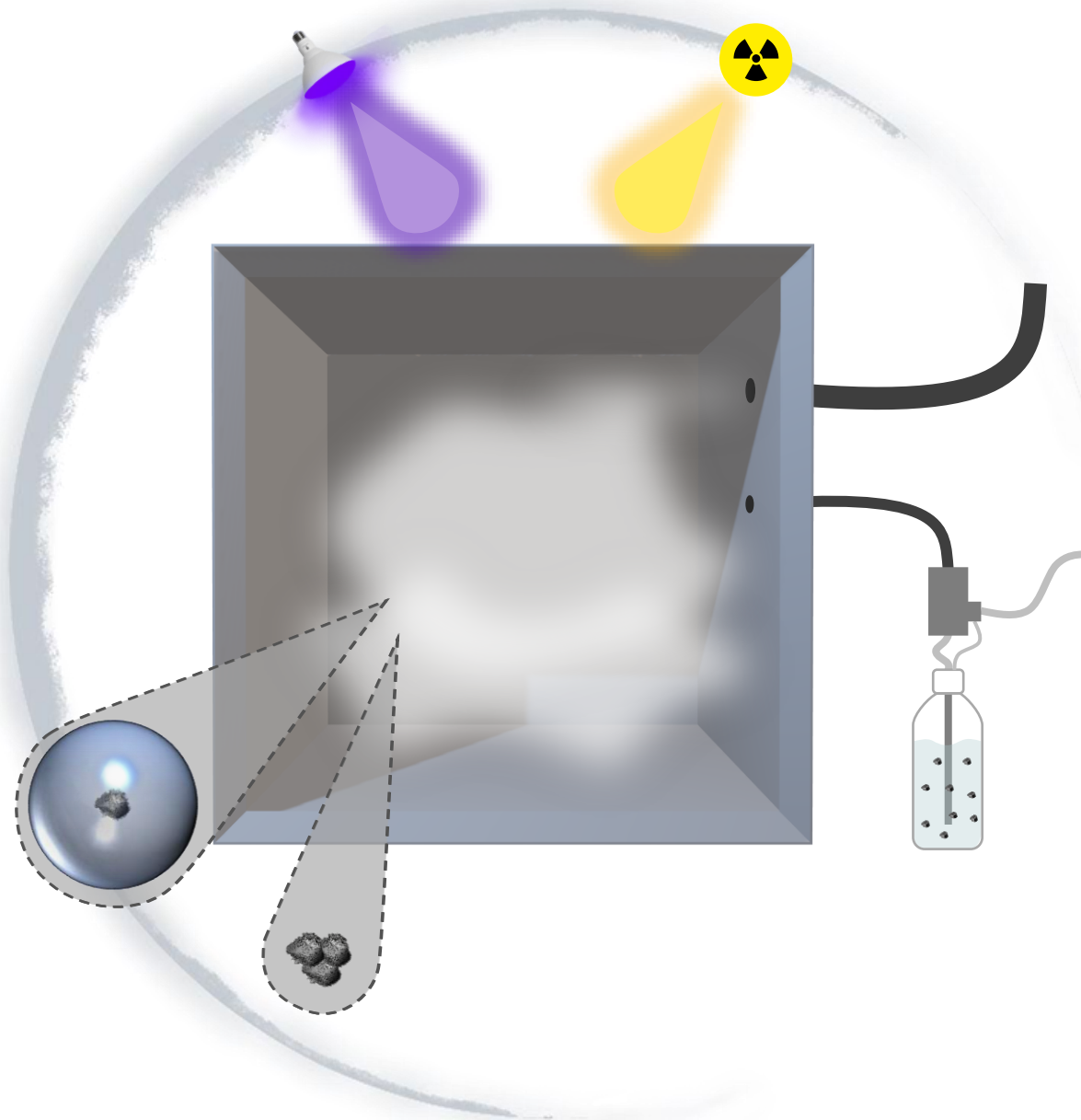
Seed particles
Cloud condensation nuclei (CCN)

Surface - gas phase chemistry

Prebiotic molecules

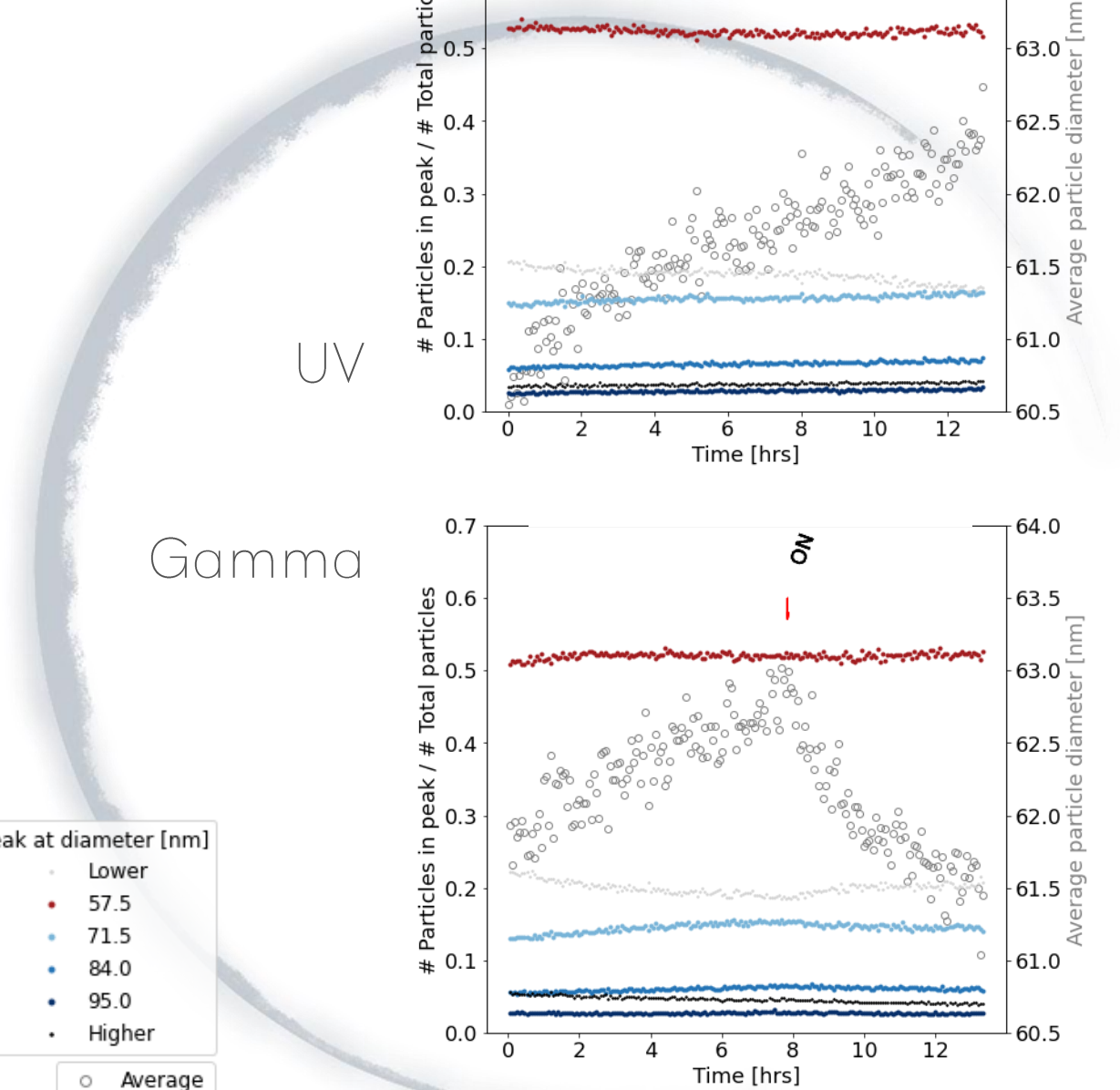
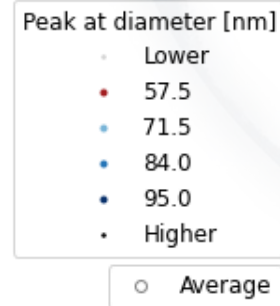
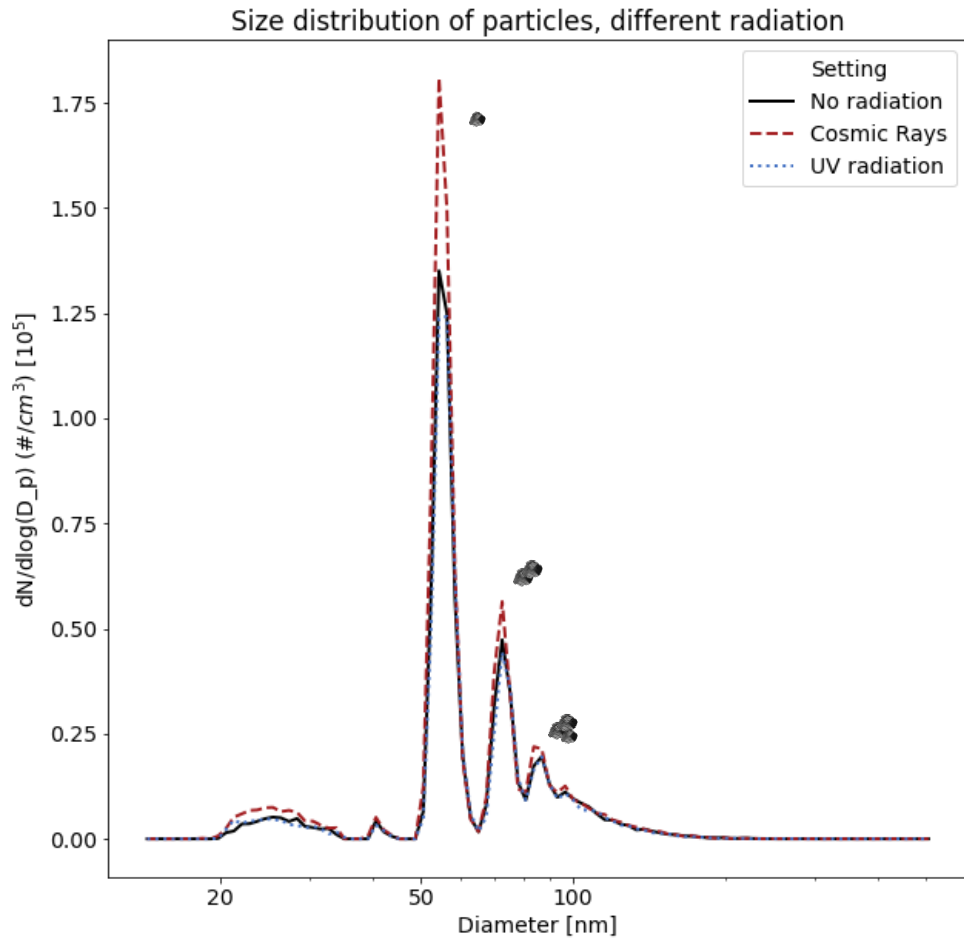
Experiments with SiO_2 as seed particles

The atmosphere chamber



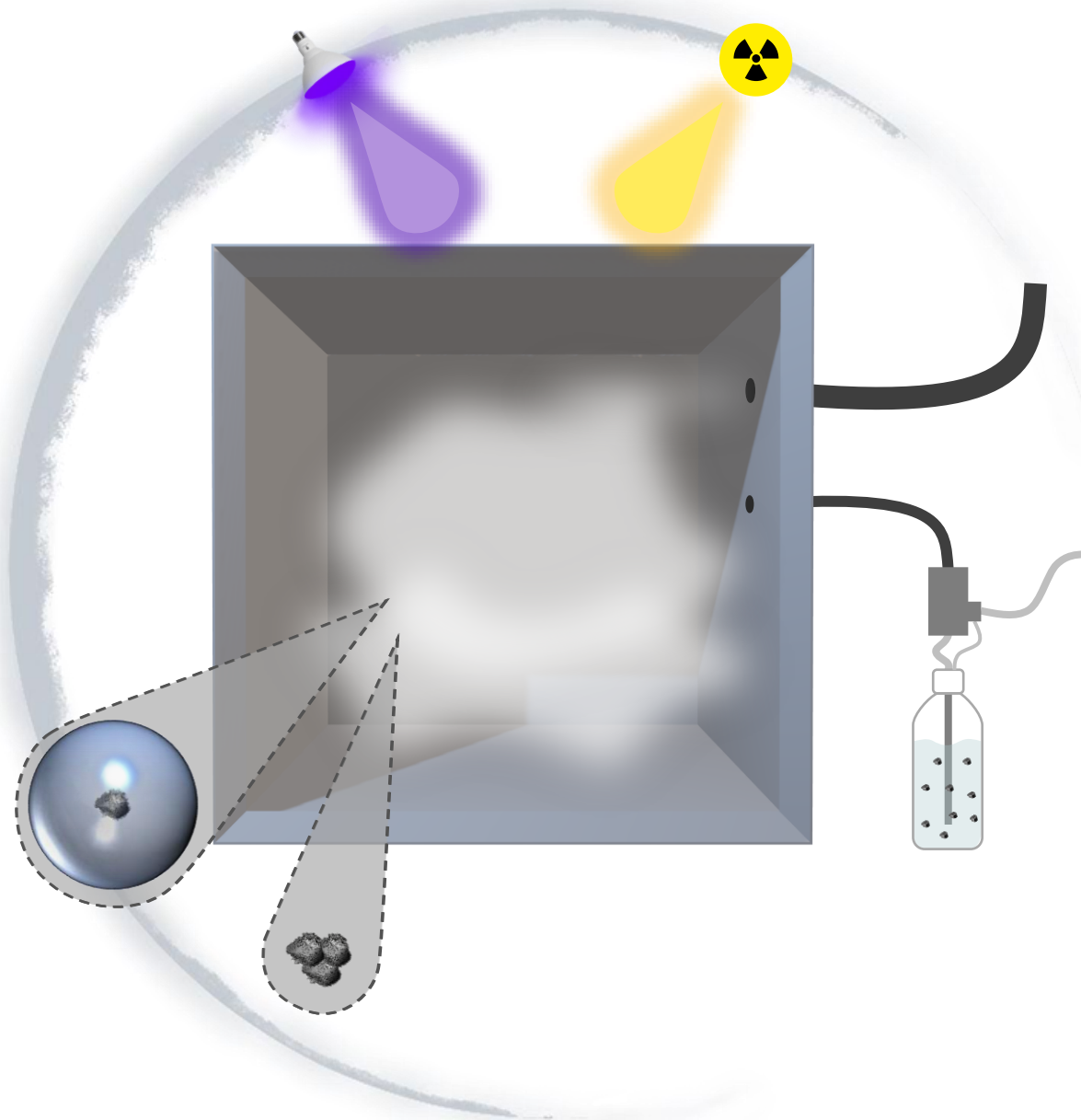
Experiments with SiO₂ as seed particles

Growth



Experiments with SiO_2 as seed particles

The atmosphere chamber



Thank you!

