

Vertical concentration gradients and transport of airborne microplastics in wind tunnel experiments

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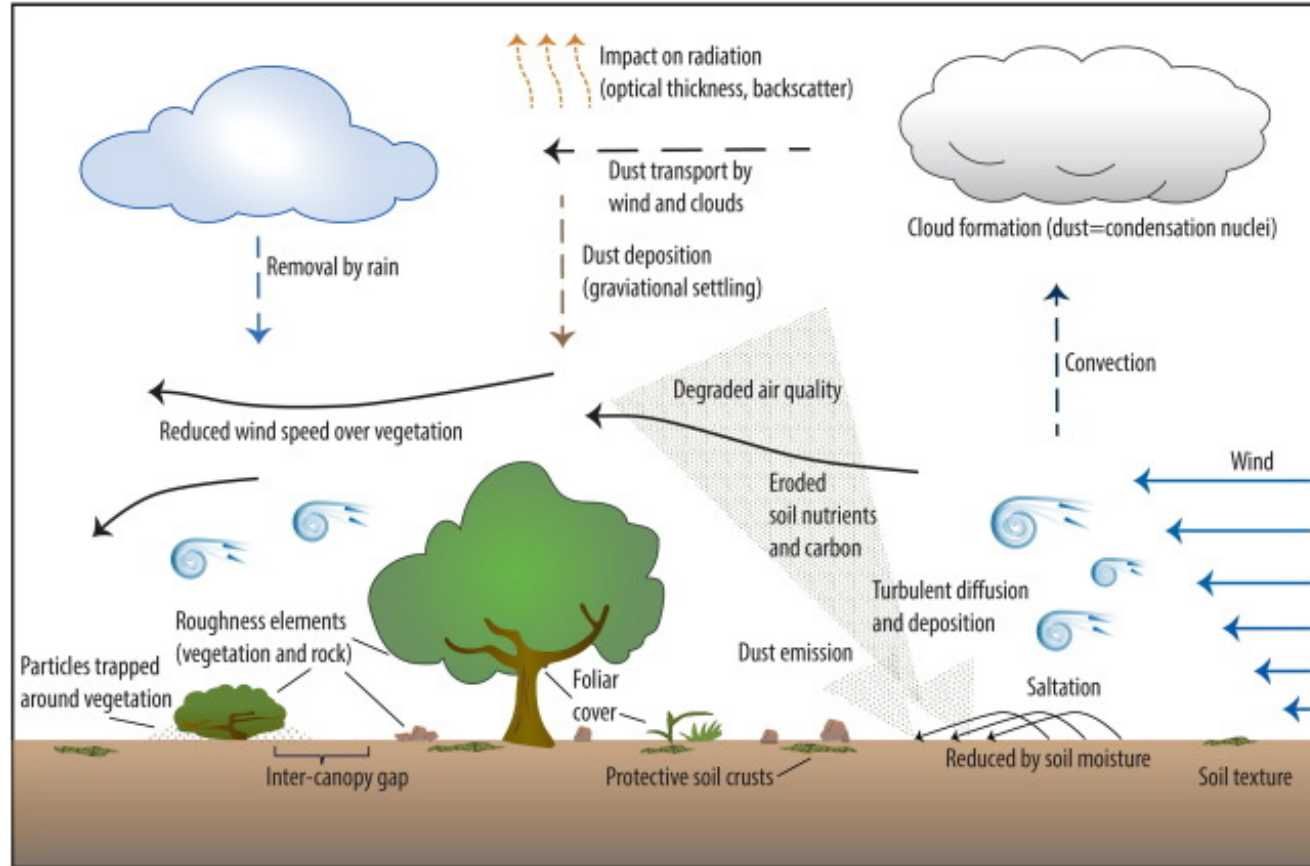
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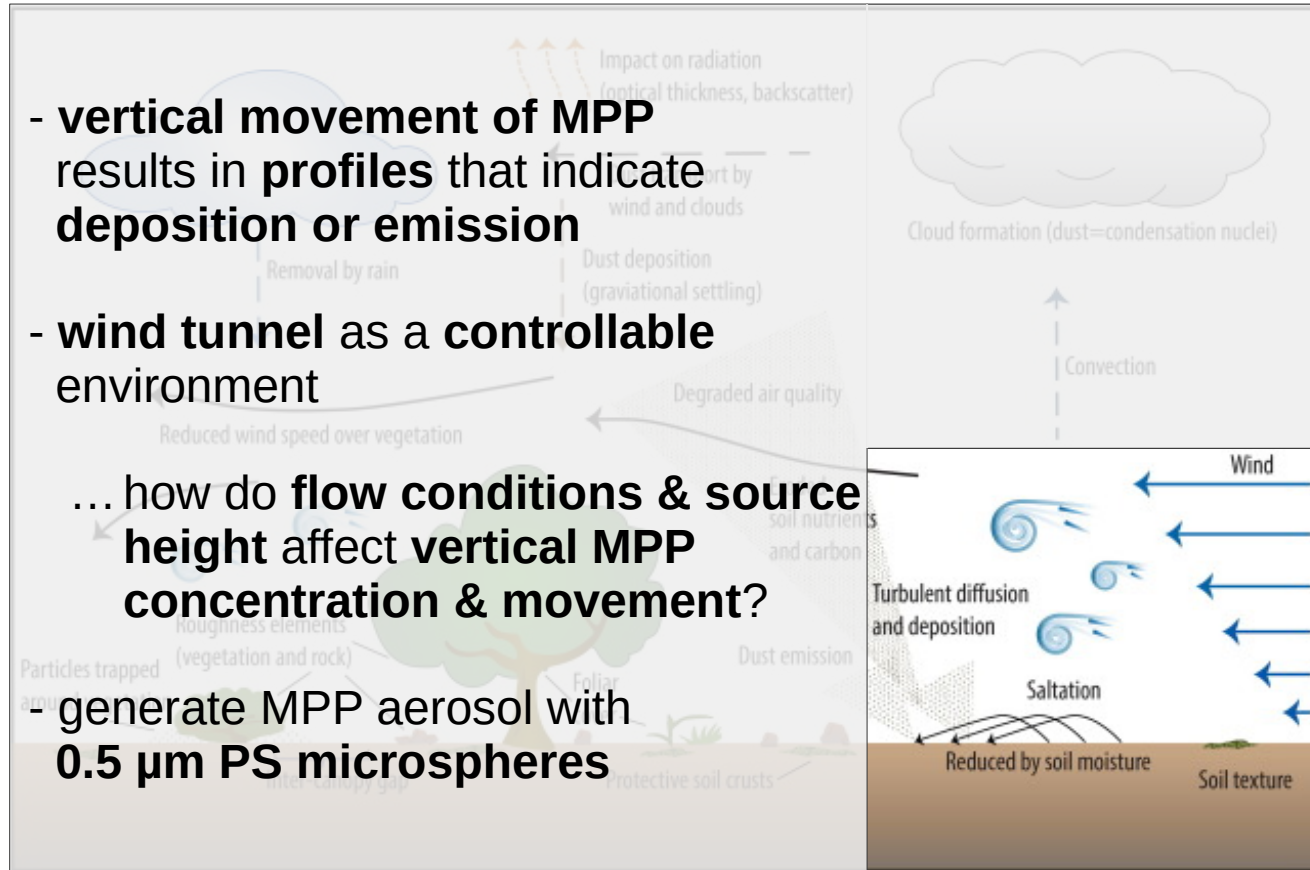
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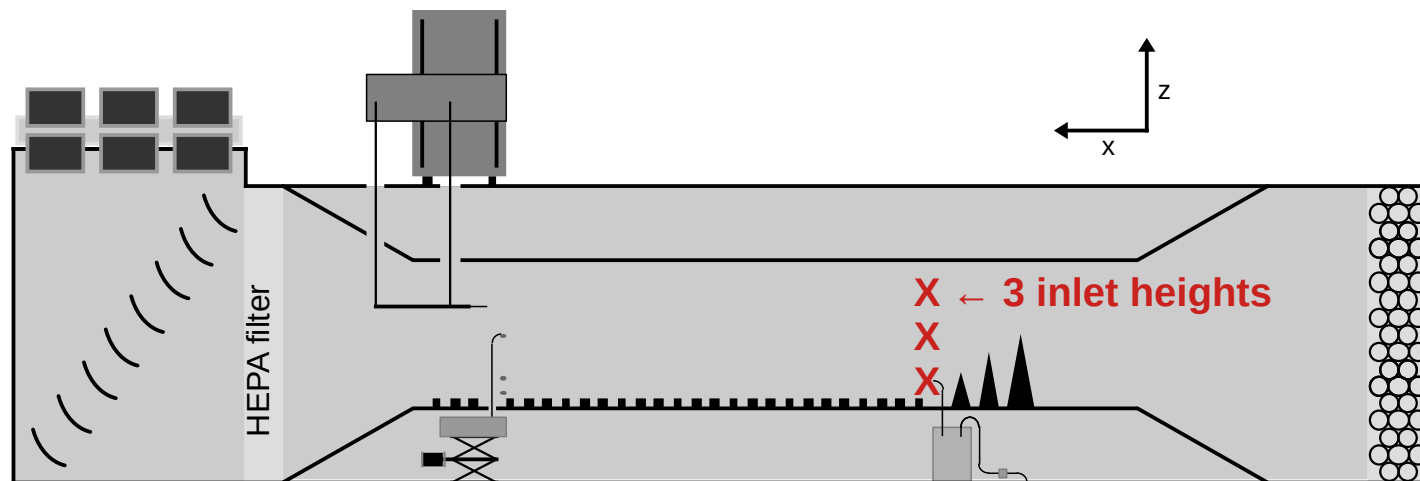
Atmospheric microplastic particle transport



Our approach to investigate short-scale processes



Wind tunnel and MPP aerosol generation



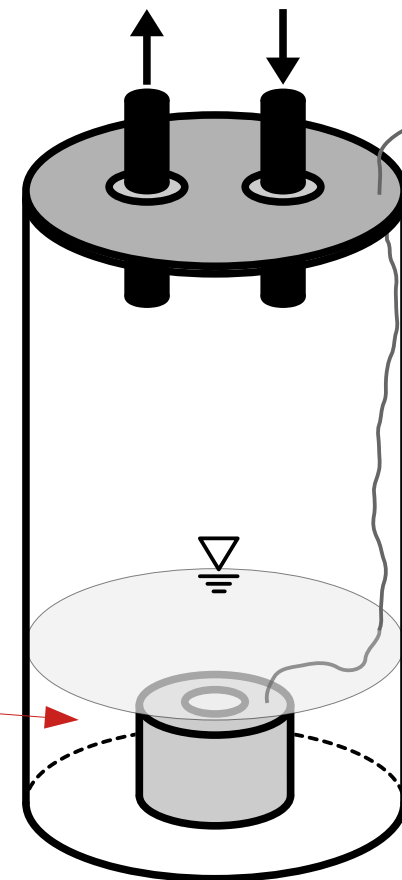
X ← 3 inlet heights

nebulizing unit

(MPP in suspension)

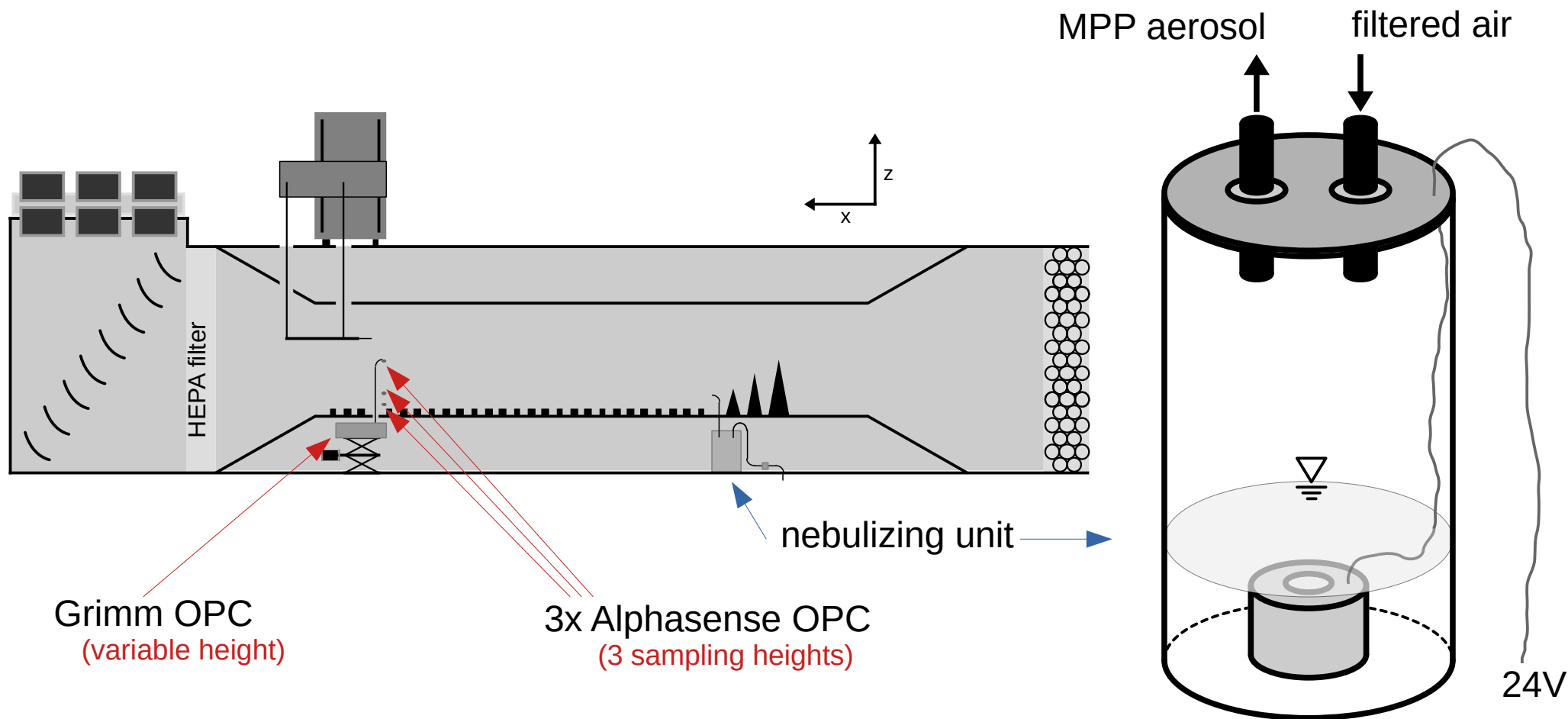
MPP aerosol

filtered air

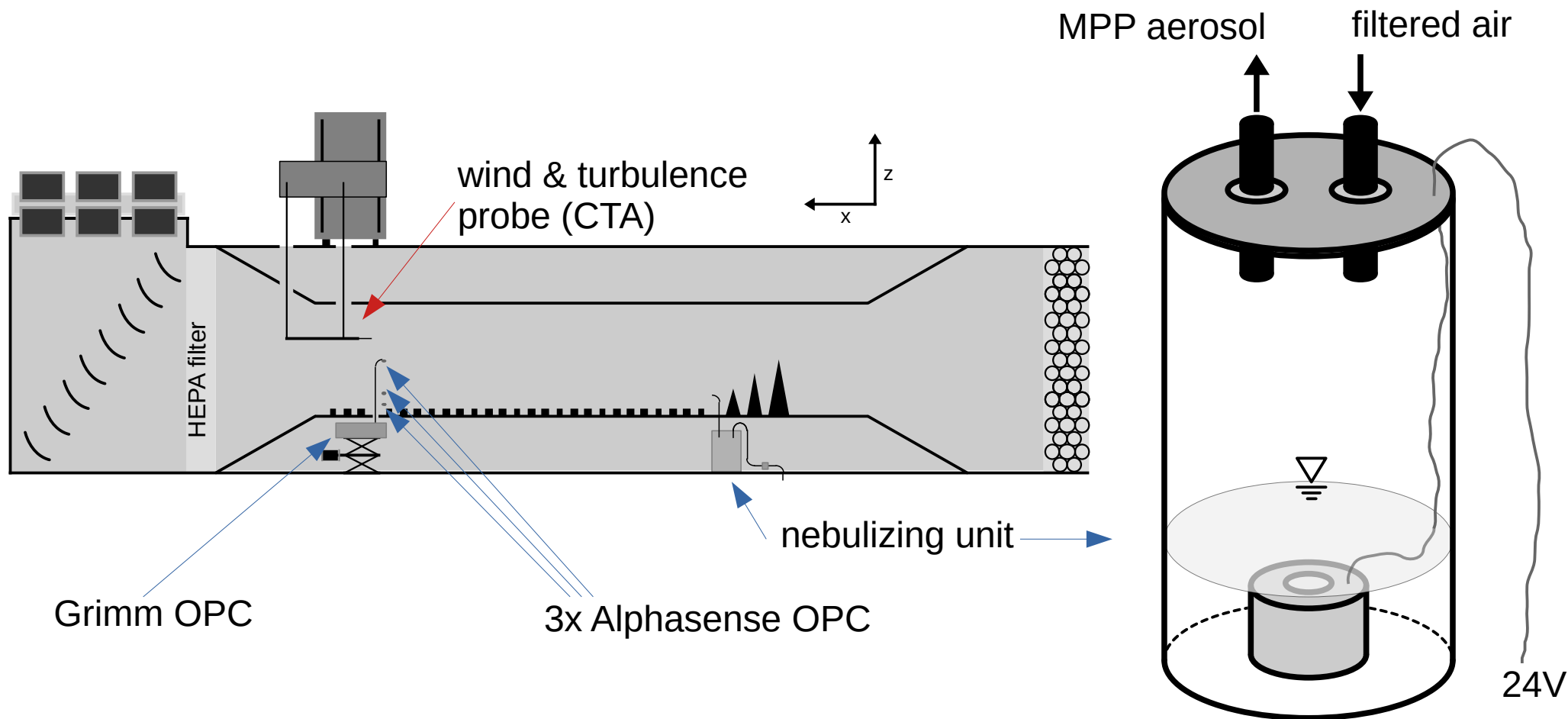


24V

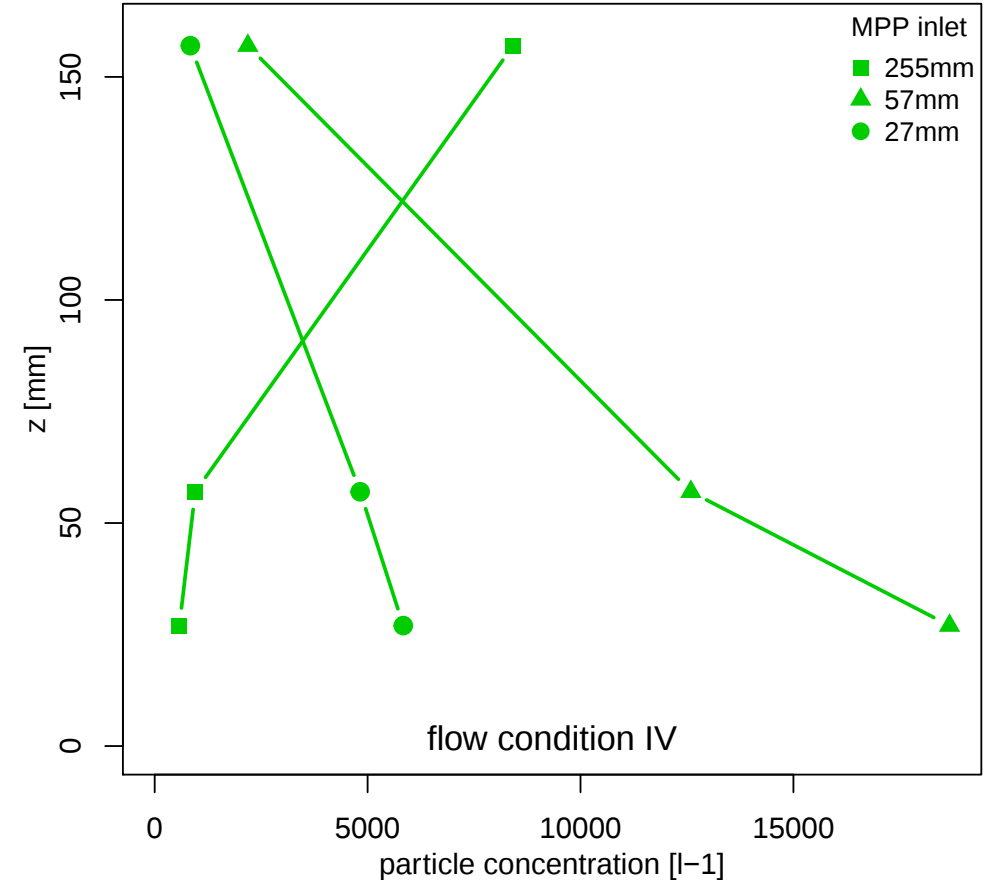
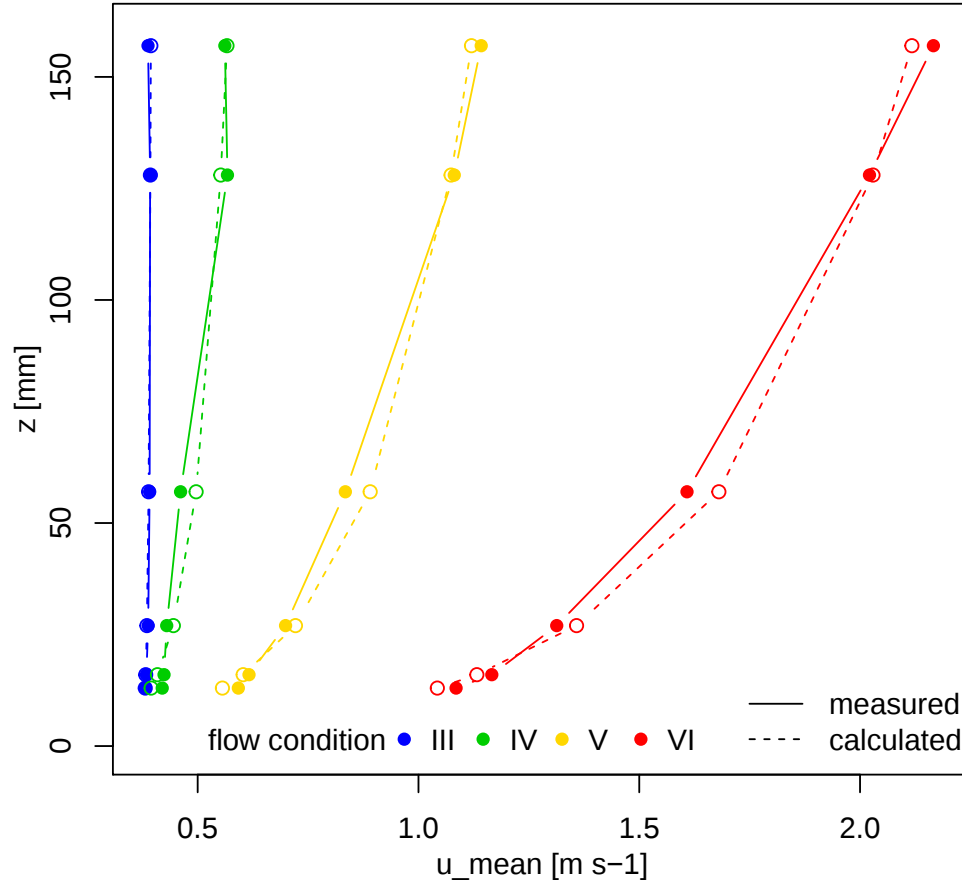
Wind tunnel and MPP aerosol generation



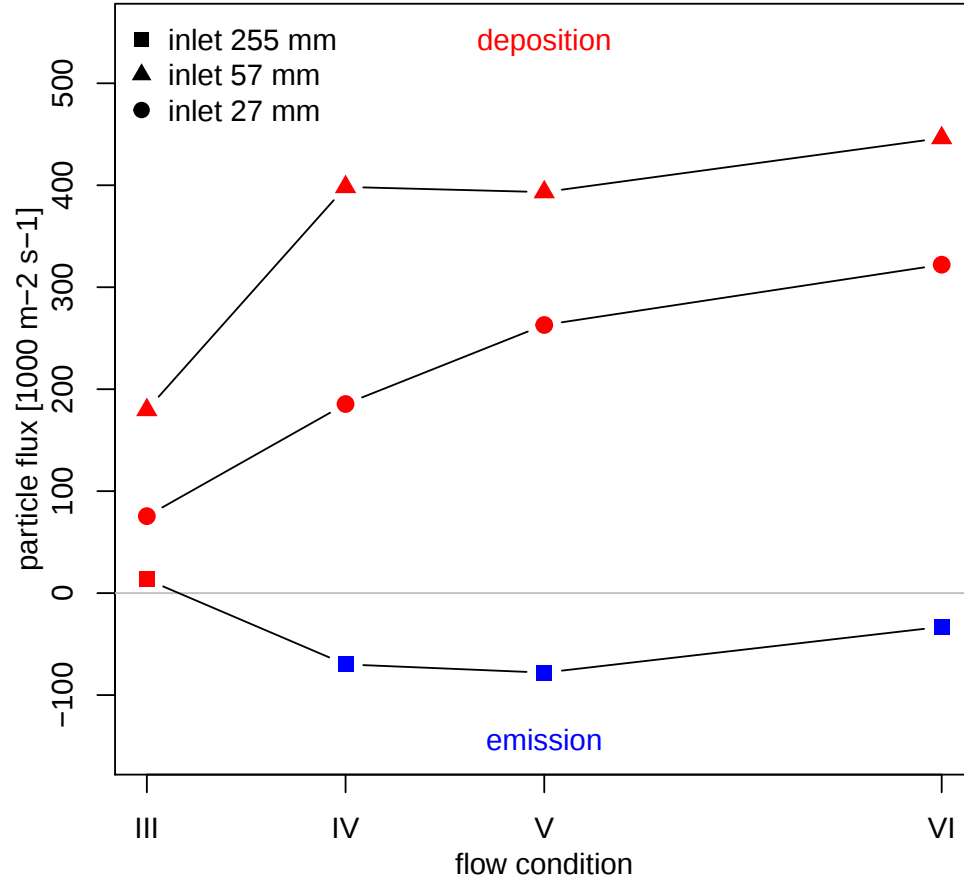
Wind tunnel and MPP aerosol generation



Results of wind tunnel experiments

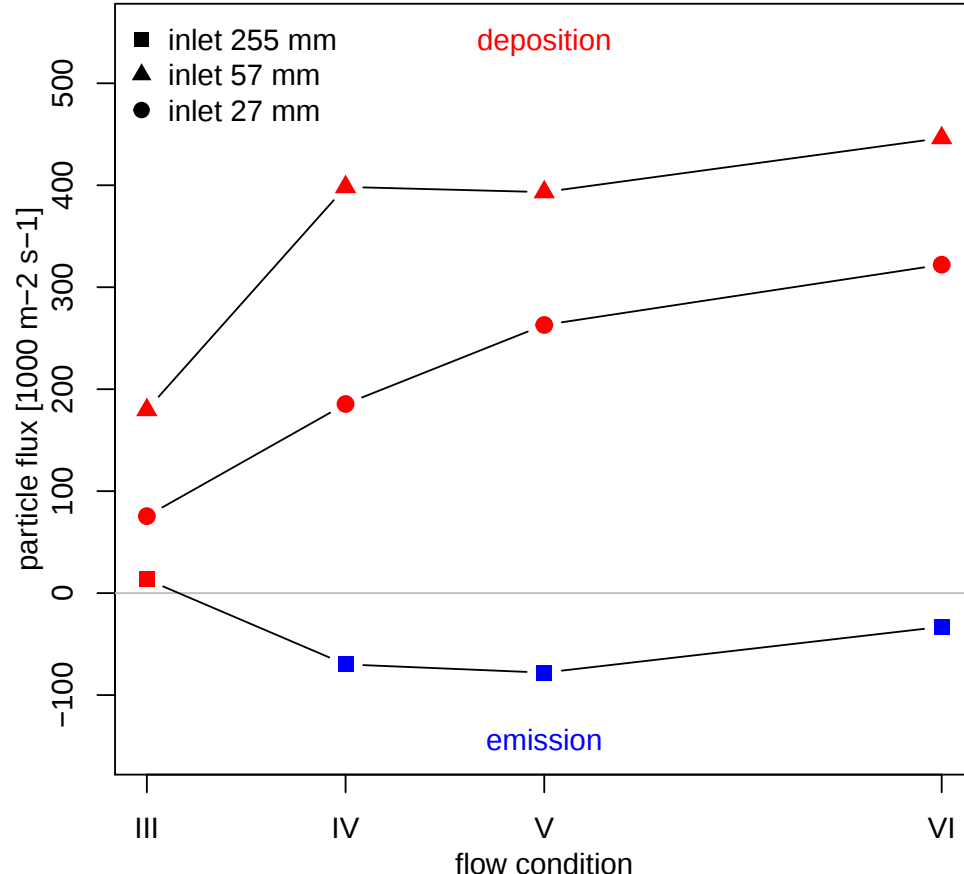


Calculation of particle flux rates



- **concentration profiles** can be observed
→ calculation of **particle fluxes**
- **flow conditions** have an **impact**
→ **formation** of a **boundary layer** affects **deposition - emission**
- **height** of the **MPP source** matters

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Thank you for your attention!