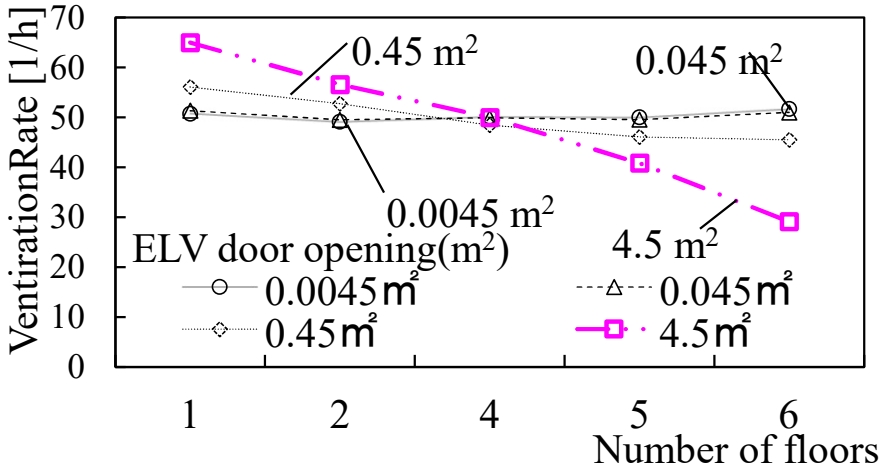
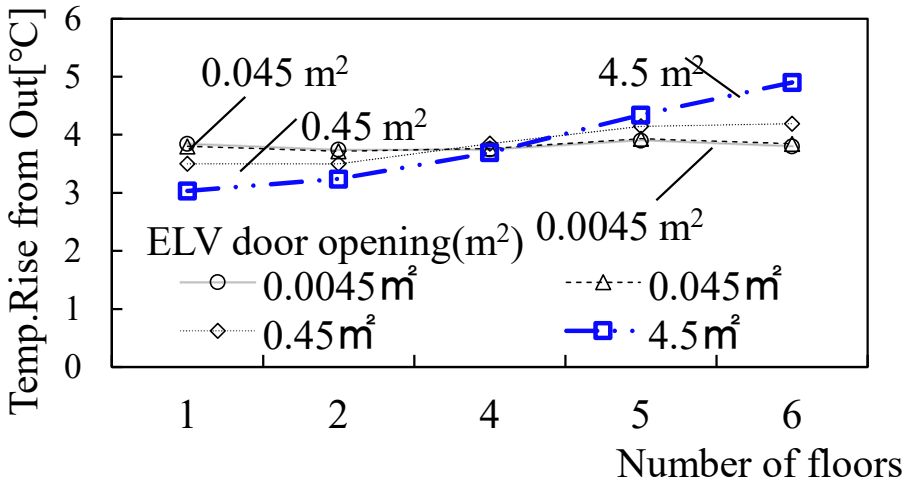
Effect of ELV Door Opening on Room Temperature and Ventilation rate on each Floor

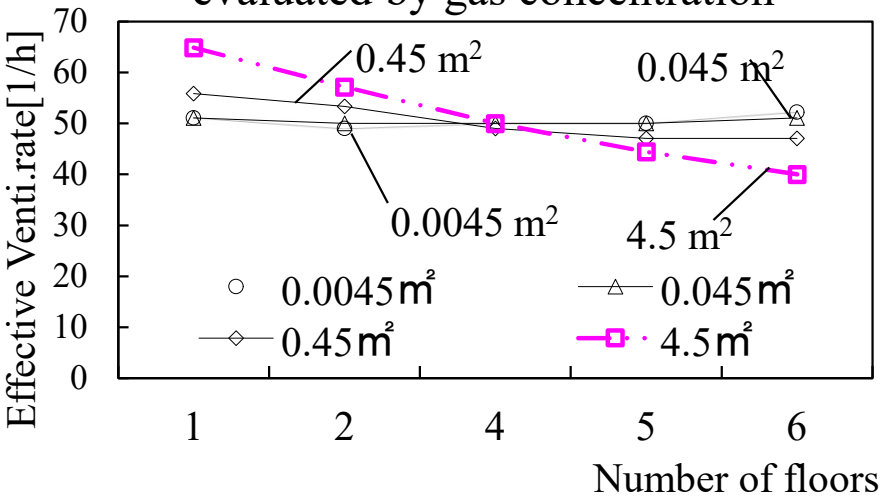
Ventilation rate based on direct outside air intake



Temp. in each floor (When Out air is 0°C)



Effective ventilation rate evaluated by gas concentration



- If the outside temperature is 0°C, the floor temperature will be around 4°C.
- The difference in the ventilation rate on each floor due to the effect of the ELV door opening is small.
- Both the ventilation rate by directly intake and the effective ventilation rate are approximately 50 times per hour.
- Effective ventilation rate = (Effective ventilation flow rate) / (floor volume)

"Effective ventilation rate" takes into account not only the flow rate of outside air but also the flow rate of that has dilution capacity from other floors.

- The effective ventilation flow rate Q can be calculated from the tracer gas generation rate G and concentration C as Q=G/C. Where outdoor air concentration is zero.