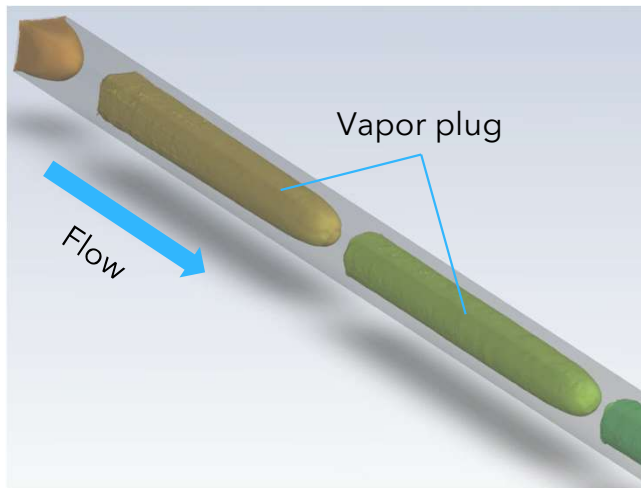


– Toward High-Performance and Compact Thermal Systems –

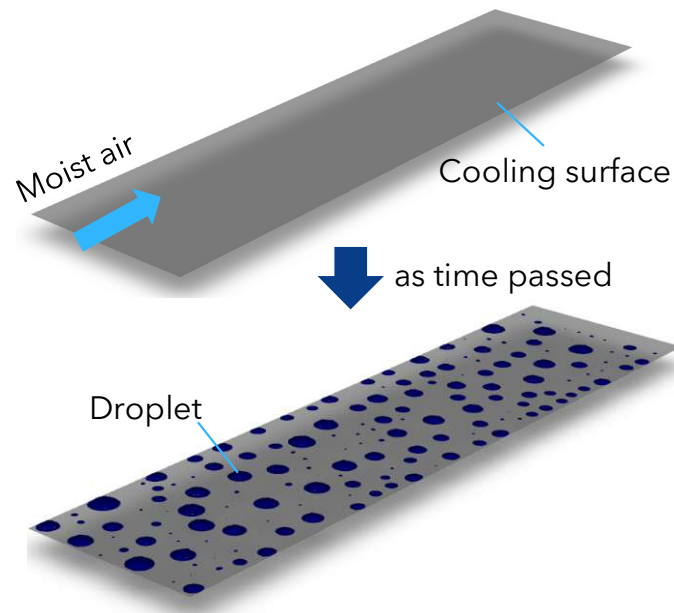
- Global demand for refrigeration and air conditioning systems has been increasing.
- Electronic devices show rising heat generation density year by year.
- **Pursuing high-performance thermal technologies through experiments and simulation.**

Gas-liquid two-phase flow in microchannel



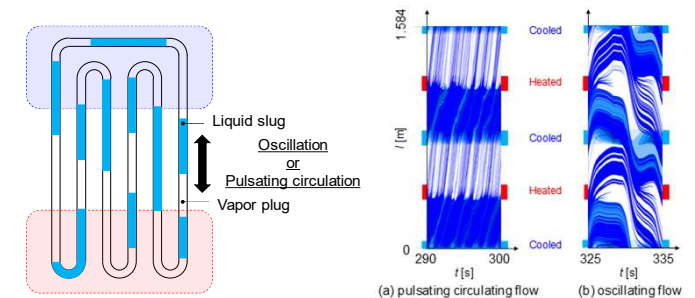
Numerical simulation of slug flow in microchannel ($D = 500 \mu\text{m}$)

Phase change phenomena (boiling and condensation)

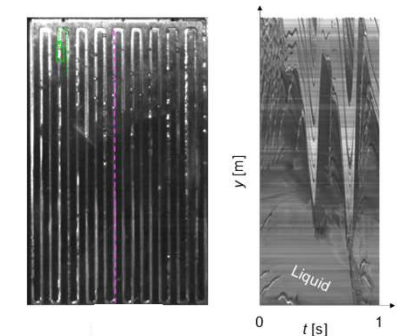


Numerical simulation of dropwise condensation on flat plate

Development of heat transport devices and systems



Theoretical analysis of pulsating heat pipe



High-speed imaging analysis