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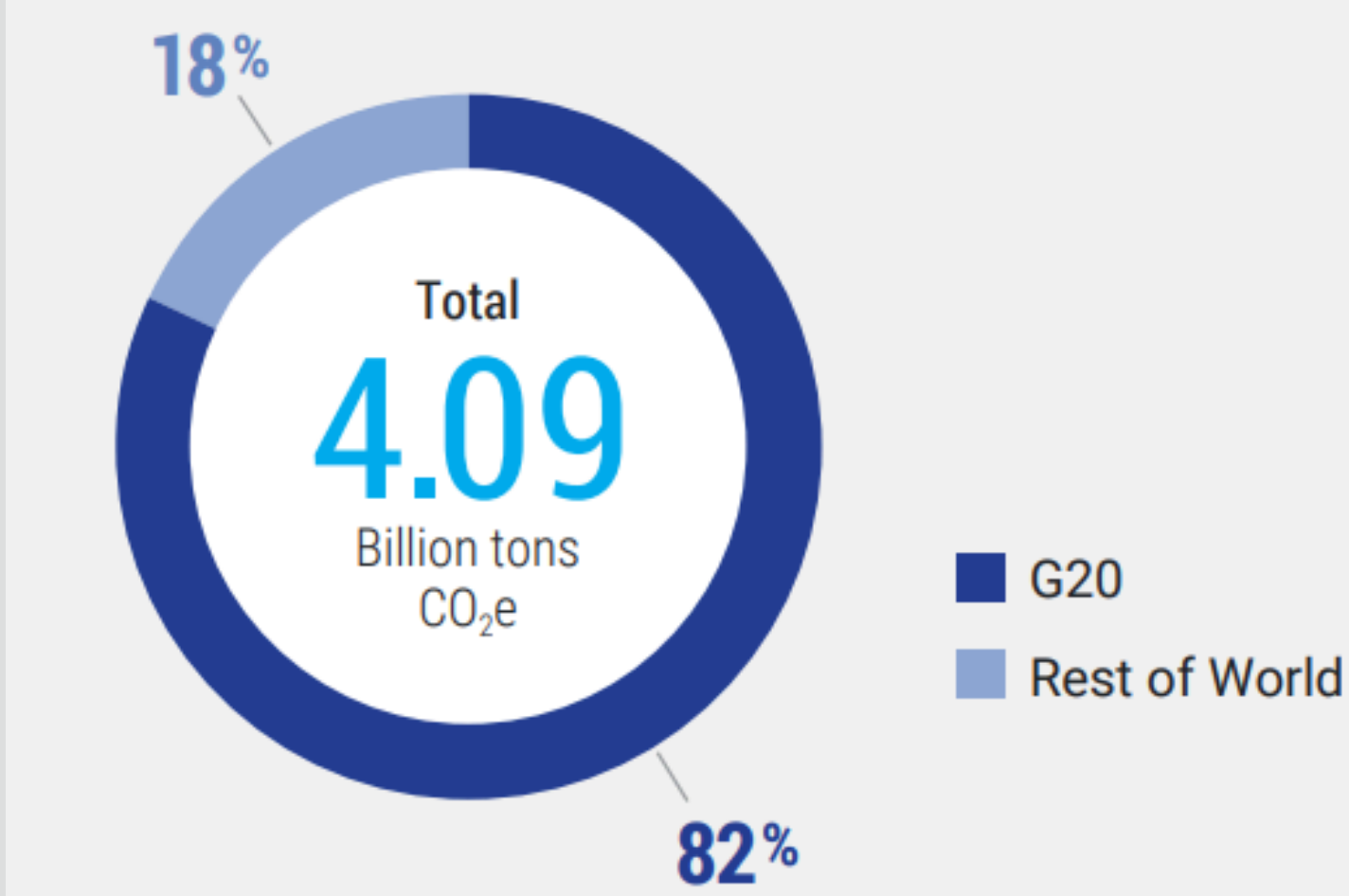
# Development of biomimetic anti-icing for second generation refrigerating systems

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## Context

Total Cooling, GHG Emissions (%)

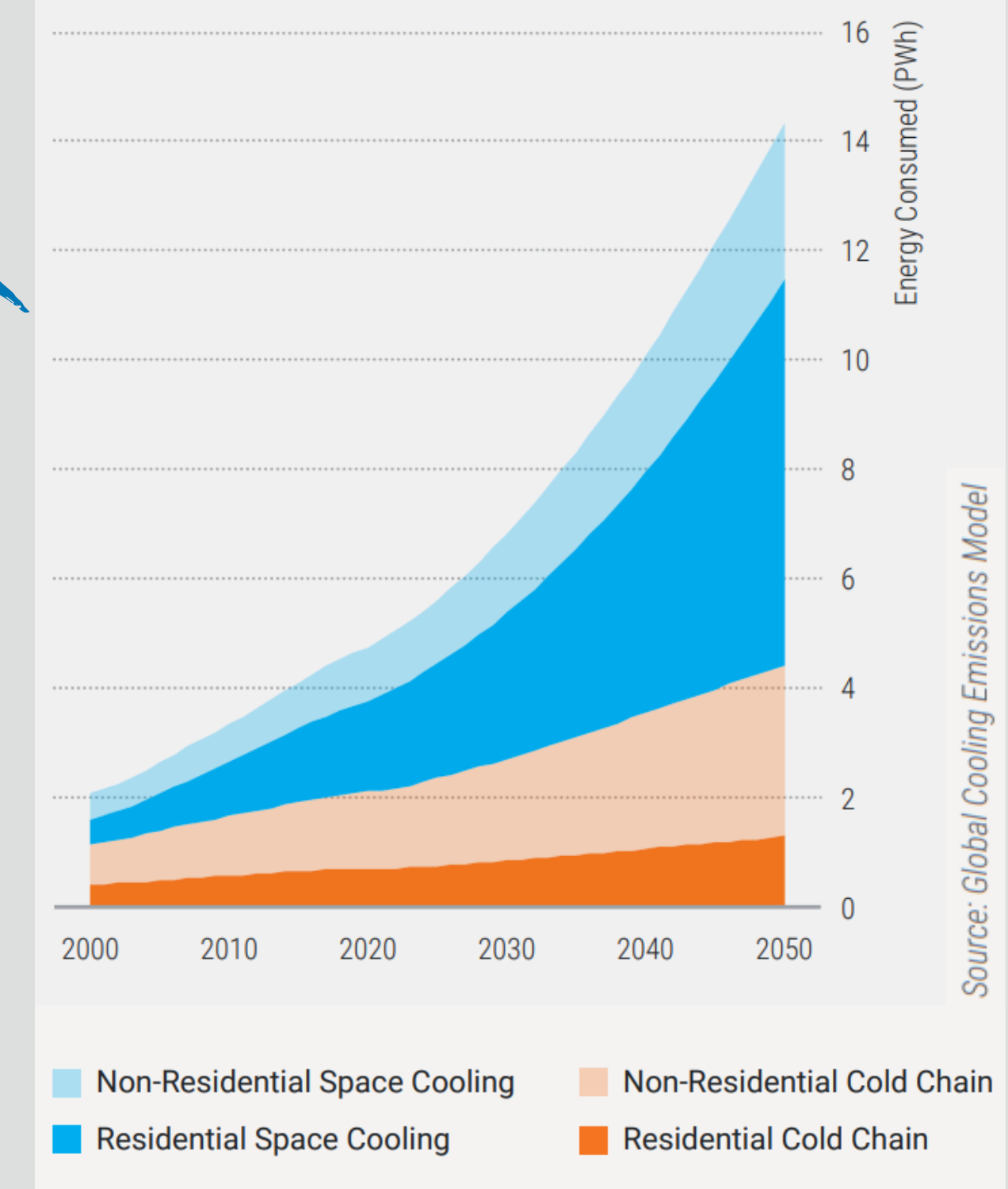


Source: Global Cooling Emissions Model

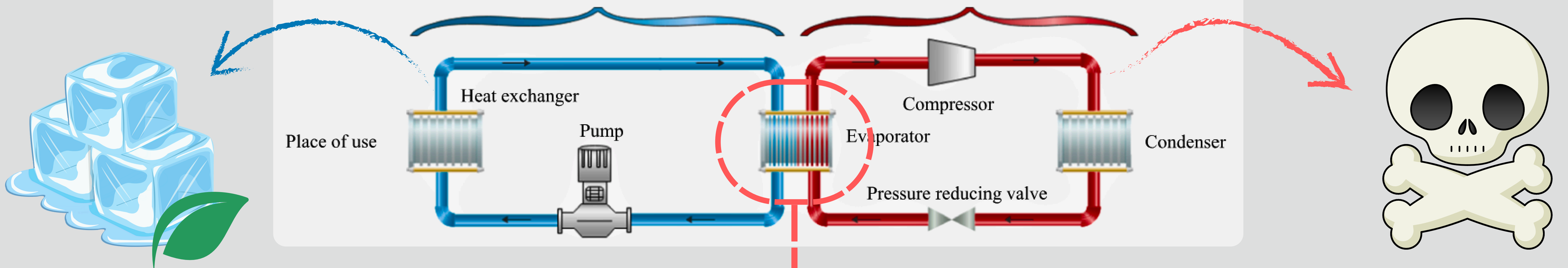
Around 30% of global energy consumption

Around 10% of global GHG emissions

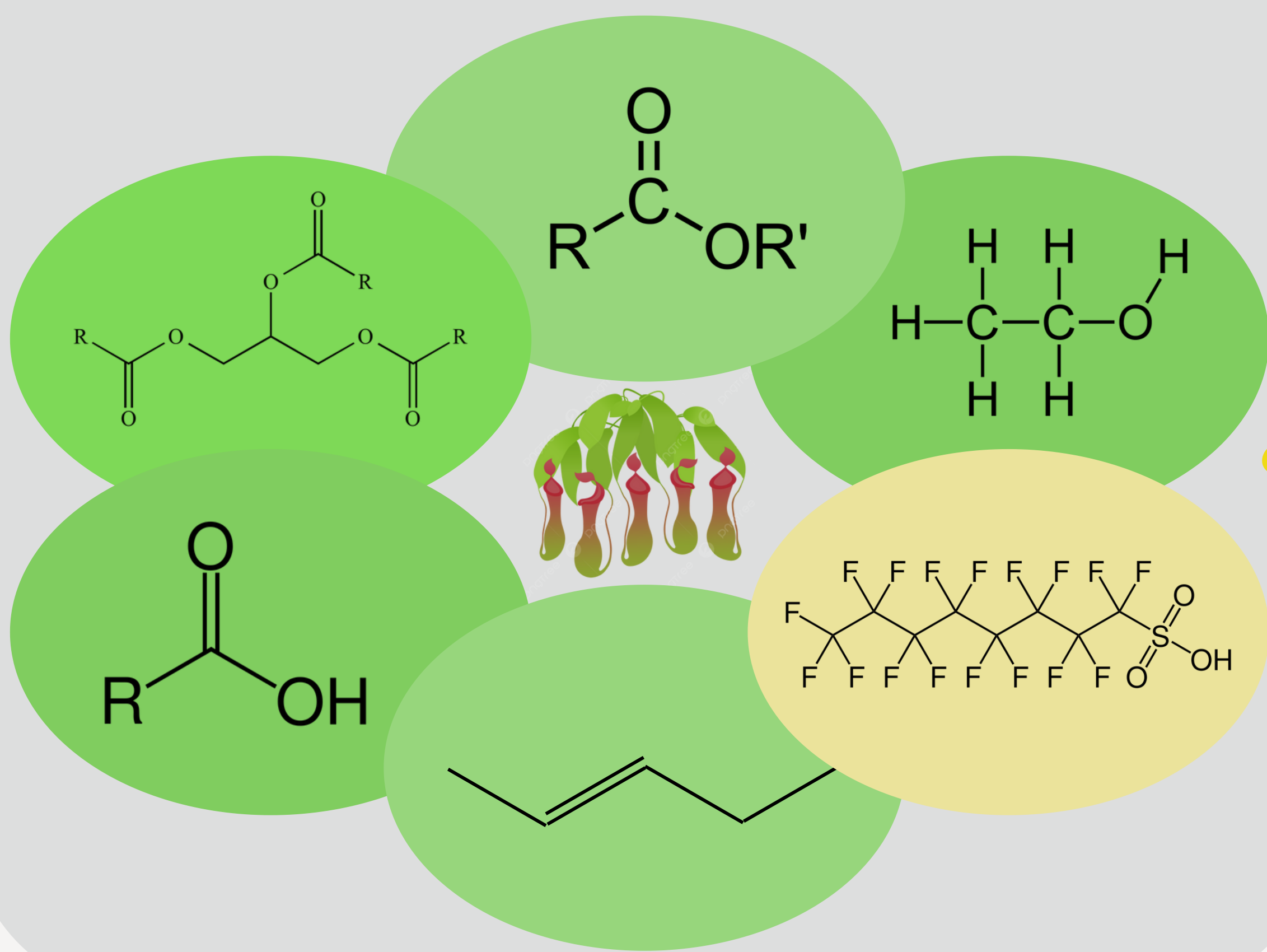
Energy Consumption of cooling equipment



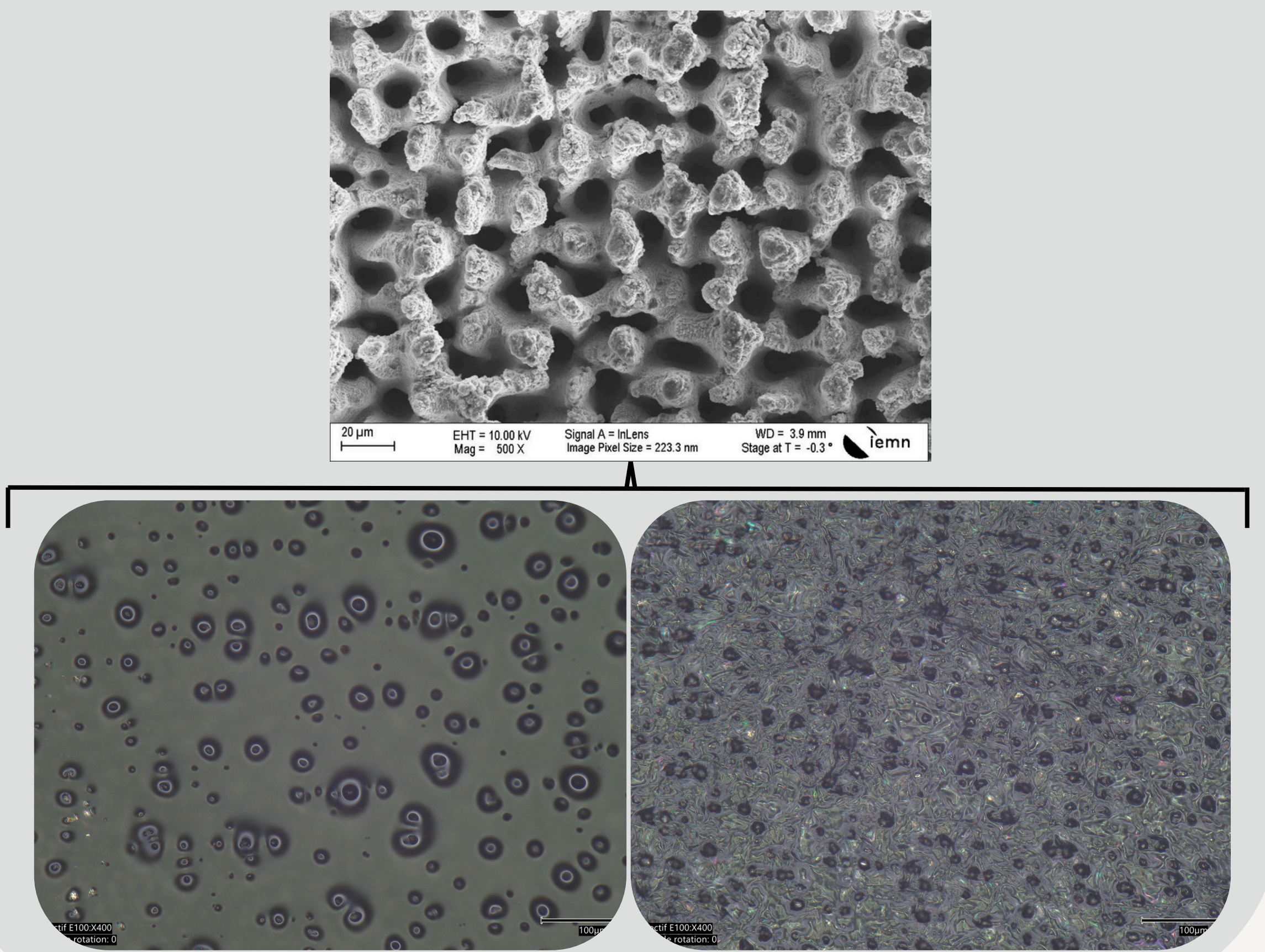
Secondary circuit: transport and use of cold Primary circuit: cold production



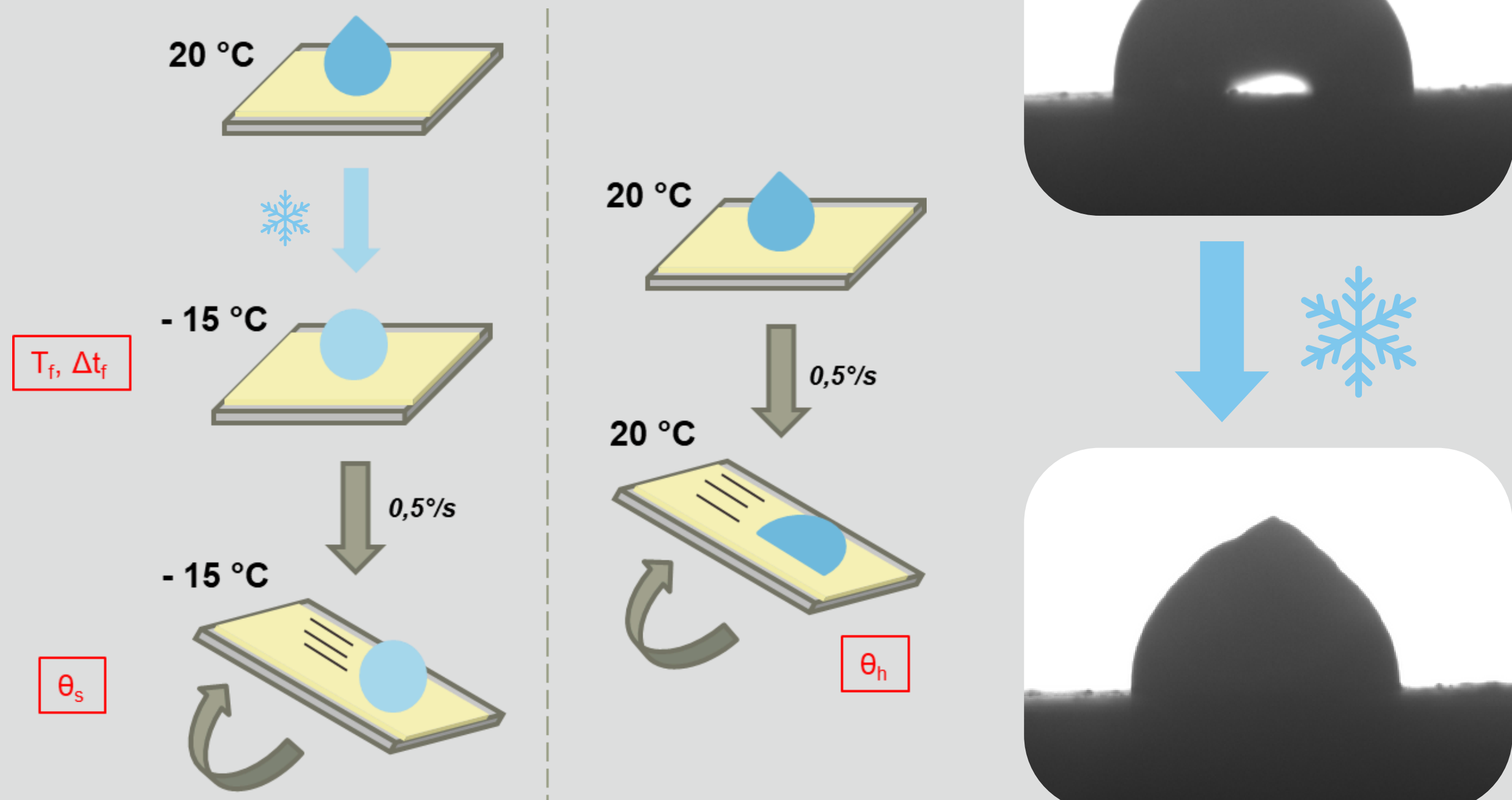
## Choice of lubricant



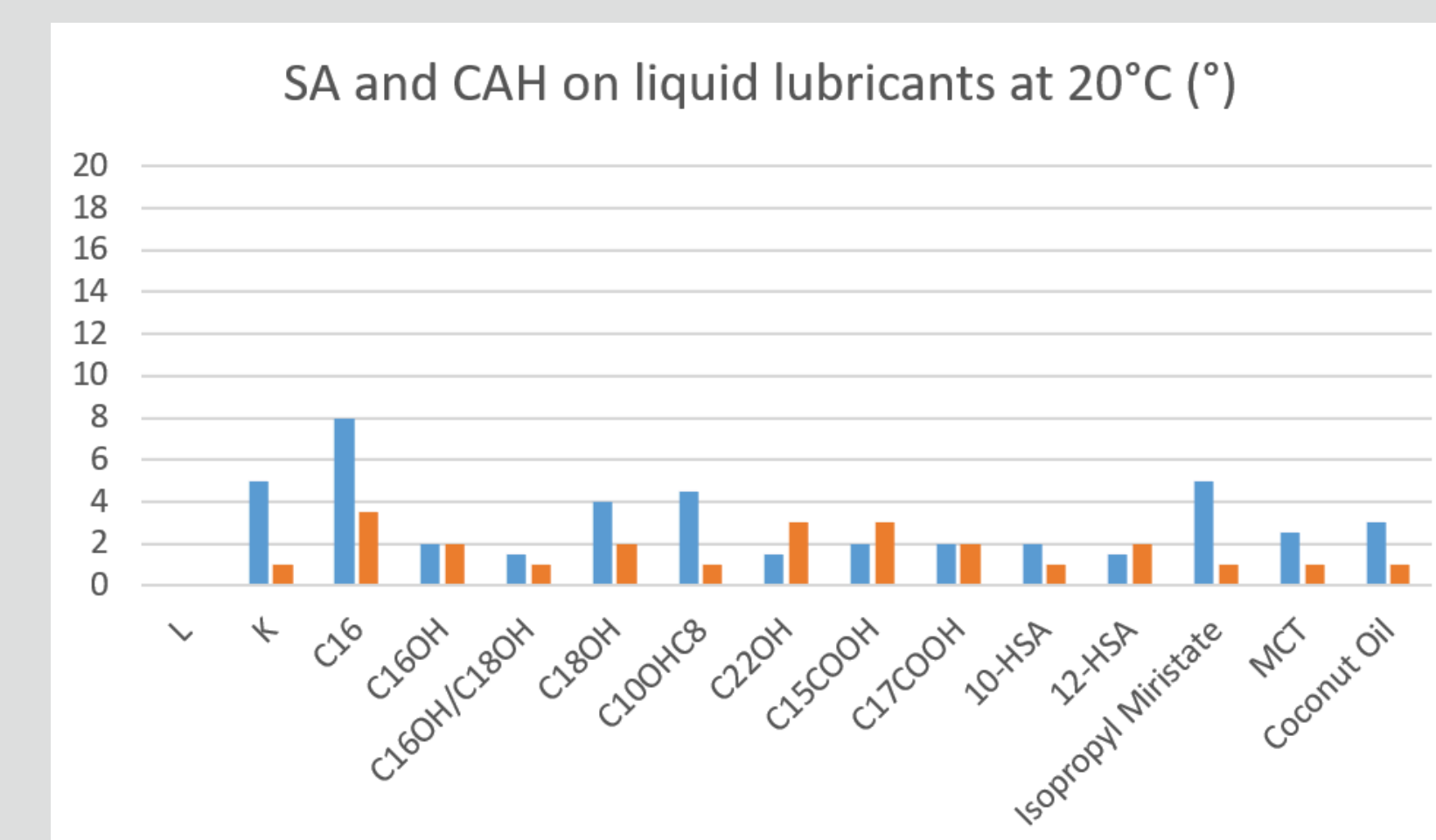
## Surface texturing



## Surface characterization



## Results and outlooks



- No sliding on solid surfaces or below 0°C
- Easy sliding on liquid lubricants

- Is sliding prevented by rugosity of solid surfaces?
- Can ice particles slide under higher external strength?