

# Members of the Japanese consortium

- **Kitami Institute of Technology**



Leader

Prof. Midori Kawamura



Prof. Yoshio Abe



Assoc. prof. Takayuki Kiba

Role: Preparation of BM films by PVD methods, and characterization

- **Hokkaido University**

Role: Preparation of BM films  
by electrochemical method, and characterization



Prof. Mikito Ueda

# Our locations

Hokkaido is the northern most prefecture.  
There are several airports.  
The airport to Kitami : Memanbetsu (MMB)  
1.5h flight from Tokyo



Kitami Inst. Tech.  
Kitami

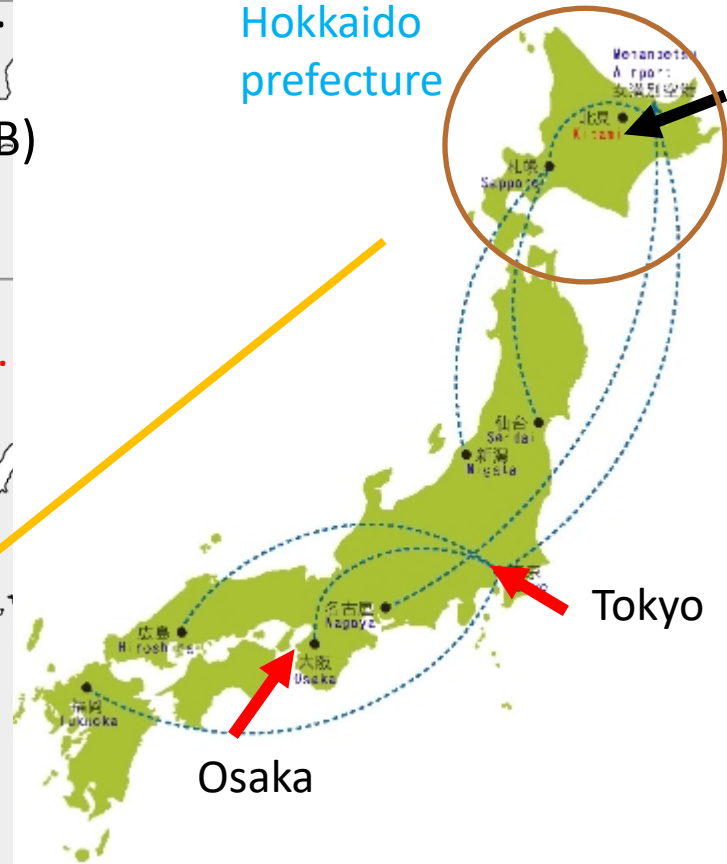
Sapporo  
Hokkaido Univ.

Hokkaido

The airport Sapporo: New Chitose (CTS)  
1.5h flight from Tokyo

Hokkaido prefecture

Kitami



# Kitami Institute of Technology

- National university corporation established in 1960.
- 2,000 students from all over Japan and abroad.



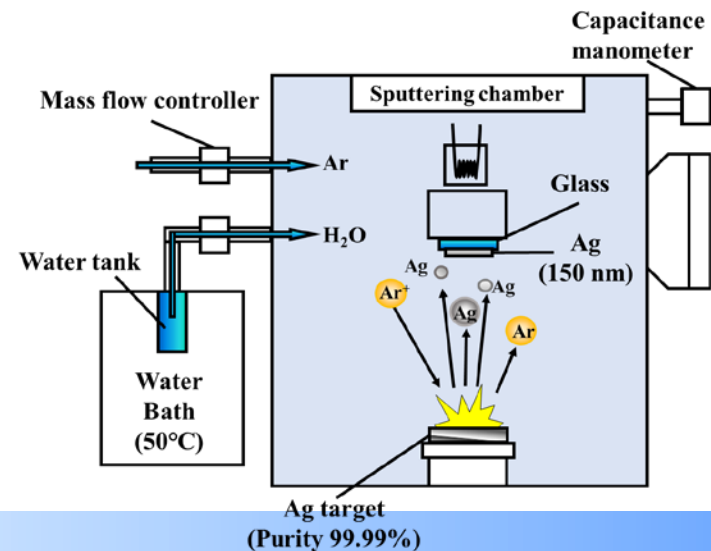
sputtering apparatus



vacuum evaporator

## Our main deposition apparatus

The substrate can be cooled down to liq.N2 temp.  
Water vapor can be introduced into the chamber.



# Hokkaido University

- National university corporation established in 1876.
- 18,000 students.



## Our main apparatus

Electrodeposition and de-aluminium of Al-Au alloys  
in an argon atmosphere glove box.  
Characterization of BM films using SEM-EDX, scanning  
XRF.

glove box and potentiostat

# Our mission

We fabricate and characterize various BM films and develop a new fabrication process of BM.

- To determine the relationship between the physical properties of various BM films and their porosity.
- To identify the characteristics of BM films by different fabrication processes.
- To develop BM films suitable for QCM sensors.