



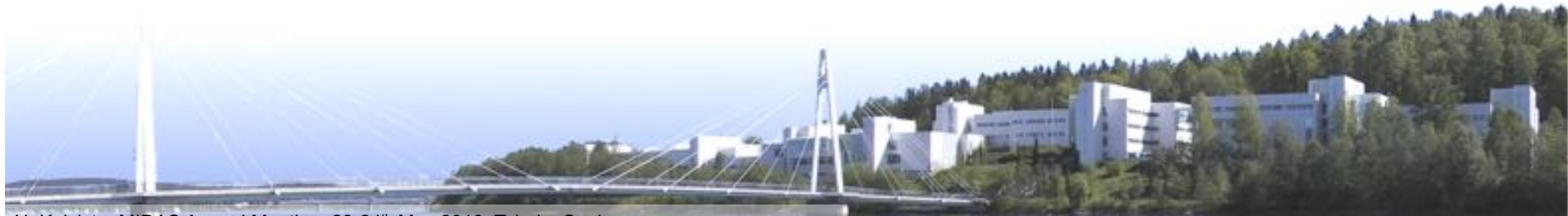
Inductively heated oven



Induction oven (status at 2012):

The first version of the JYFL induction oven was very promising! However, further development was needed because

- 1) Power coupling to the surrounding structures (consequently the power of ≈ 500 W was almost inadequate for operation temperature needed for titanium)
- 2) Quite complicated tuning/handling (tuning of the circuit to have proper resonance conditions)

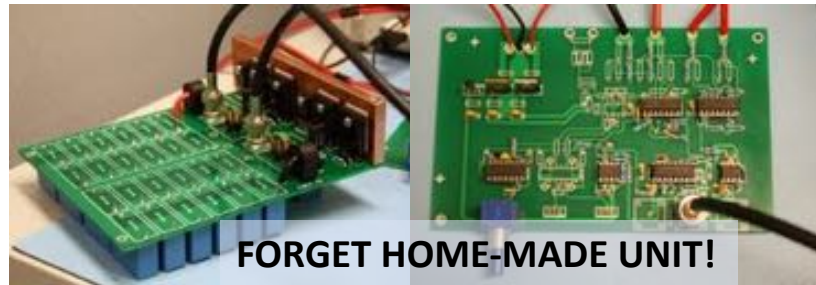




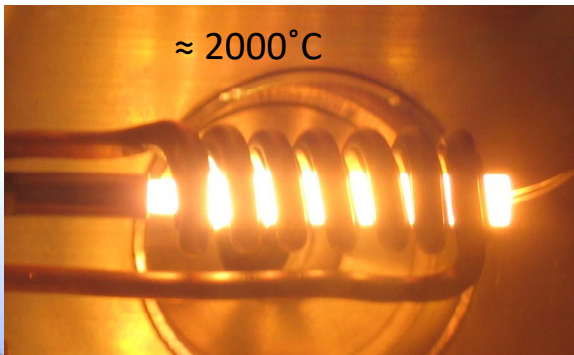
Induction oven continues (2012)...

- Power coupling problem was successfully solved with triaxial desing!

- Tuning effort was minimized with the RF-power control circuit based on autoresonance
- First experiment in the beginning of 2012 was promising but some further fine tuning of the power control unit is needed before the final version. **New version:disappointment!**
- Home-made W-crucible is now available (**not tested yet!**)
- **Evaporation of Ti is still challenging!**



FORGET HOME-MADE UNIT!



≈ 2000°C

We never succeeded because of the lack of human resources!

My opinion (2018): this is very strong option for the evaporation of refractory elements!

