



Summer traineeship 2019
Erasmus +
Charles University
Prague
Department of condensed
matter physics





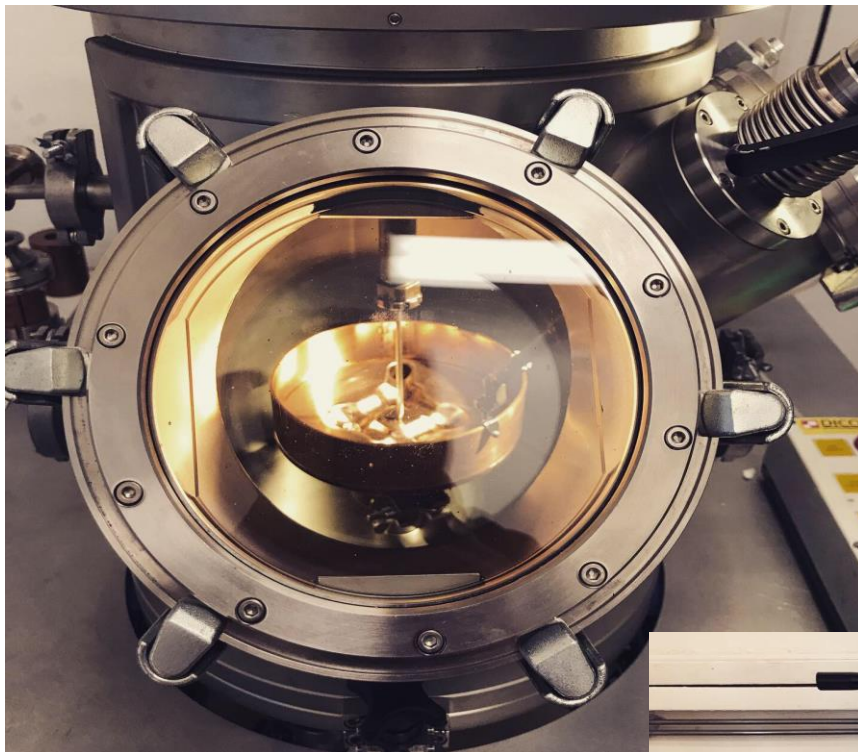
Dávid Hovančík

Information about traineeship

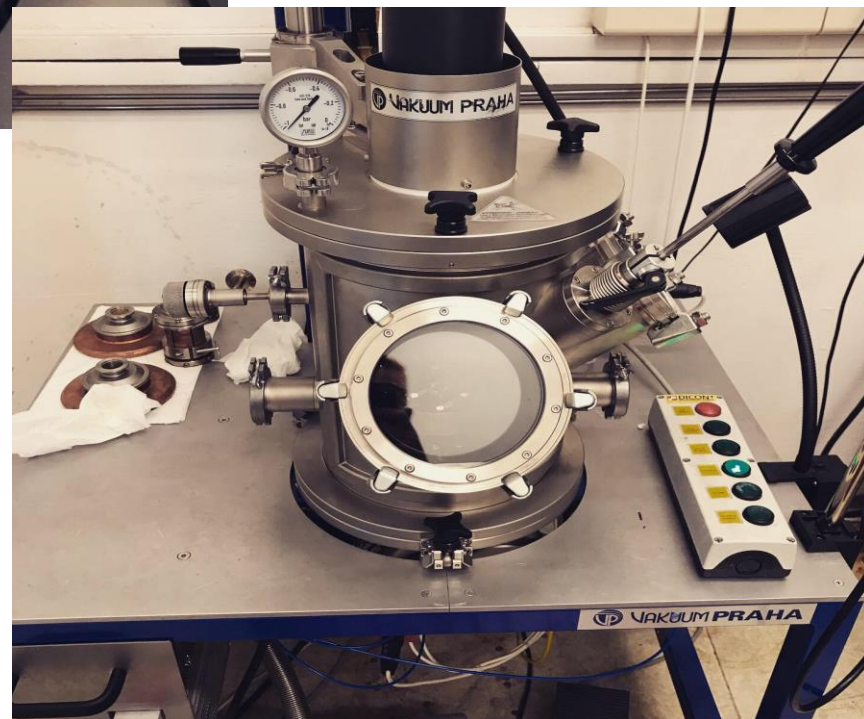
- I participated traineeship on Charles University, Faculty of Mathematics and Physics, Department of condensed matter physics
- The traineeship length was 3 months
- During the traineeship I worked with uranium compounds like UIrGe or UCoGe
- I learned how prepare polycrystalline samples and then I learned how obtain information about structure by x-ray diffraction and chemical composition by electronic microscope
- I also measured the physical properties like heat capacity, resistivity and magnetization of prepared samples



Cutting uranium



Melting in mono-arc furnace with protected argon atmosphere



Chemical and structure analysis laboratory



Laue diffraction
equipment



Vacuum box with protect argon atmosphere



Bruker D8 Advance (X-ray power
diffraction)

Prague city of the culture

- I also visited many beautiful places in Prague



The dancing house



Vrbov garden



St. Martin's Church



Results



- I obtained experience in prepare uranium compounds
- I learned the theoretical knowledge about problematics uranium compounds
- I acquire skills with structure analysis by x- ray power diffraction and also with electron microscope
- I obtained skill with measured physical properties
- I participate the international conference EHPRG (European High Pressure Research Group)
- In next time I will continue in work with uranium compounds and it will be also my master thesis



Thank you for
watching