

INTRODUCTION OF THE FIRST YEAR Ph.D. STUDENT

Petr Čípek, Mgr.

ÚSTAV KONSTRUOVÁNÍ
Fakulta strojního inženýrství
VUT v Brně

Brno, 18.9. 2024



CONTENT



About myself



Hobbies



Education



PhD study



study activities

HOMELAND

Olomučany

North part of **south Moravia region**
about 26 km away from Brno, district
of Blansko

Beautiful nature, **Moravian Karst**,
local **ceramics**, **Folklore**,



HOBBIES



Motorbike



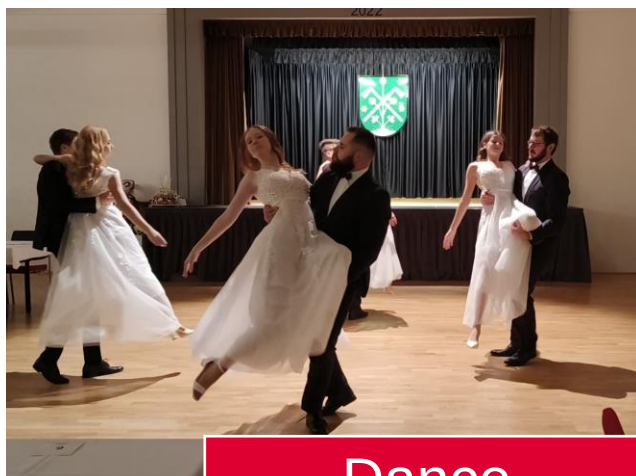
Rockband



Craft



Folklor



Dance



Workout

WORKING EXPERIENCES

A highly skilled laborer

Instructor in Jungle park

Computation specialist

Academy of Science, Brno

- Presented my research by poster at conference METAL 2024
- Co-author of the article <https://doi.org/10.1007/s11661-024-07362-3>
- Co-author of the contribution <https://doi.org/10.37904/nanocon2023.4749>



EDUCATION

Gymnázium Blansko

2015 – 2019

Masaryk University

The Faculty of Natural Science – Brno

Bachelor of Science: Chemistry

2019 – 2021

Master of Science: Physical Chemistry

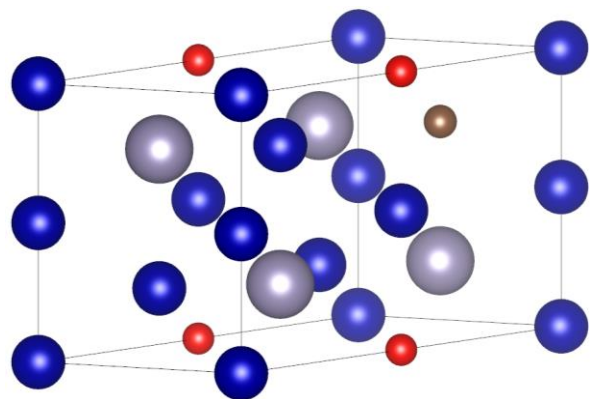
2021 – 2024



BACHELOR'S THESIS

Ab initio analysis of structure and stability of Ti_2Sn and $\text{Co}_{1.5}\text{Sn}$ phases

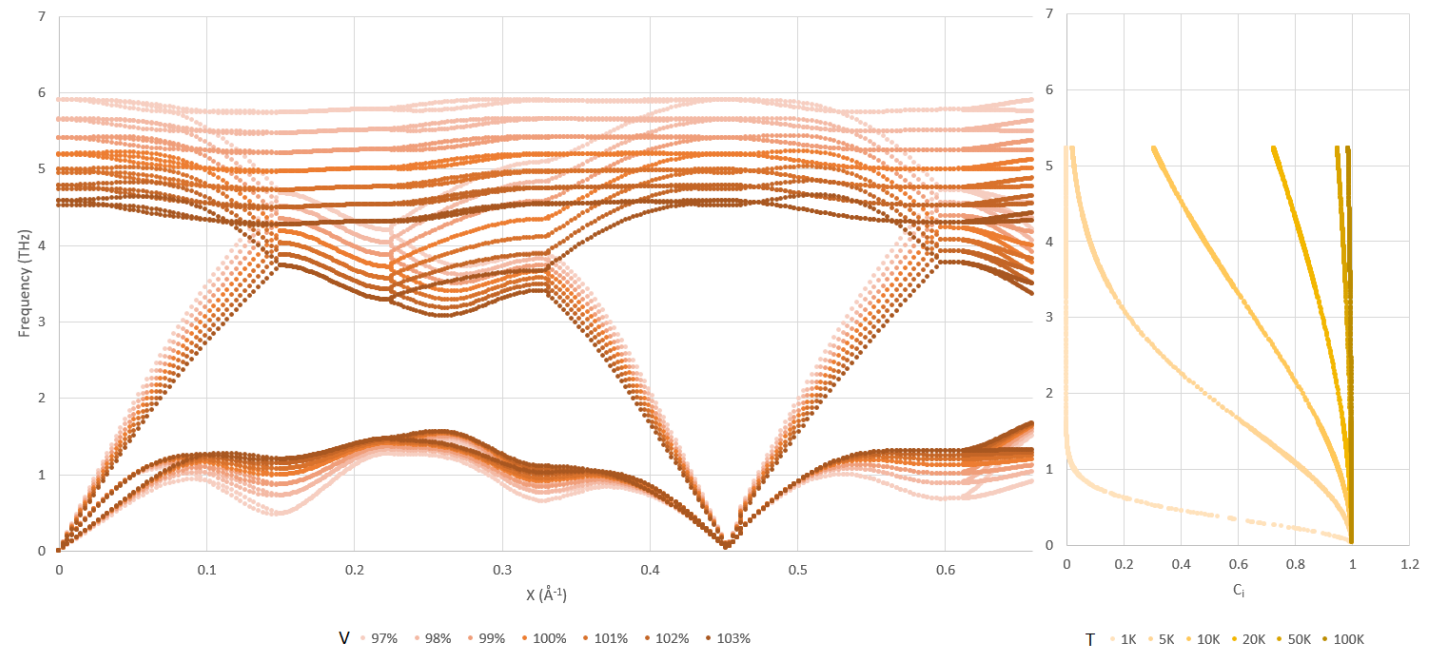
- Supervisor doc. Mgr. Jana Pavlů, Ph.D
- Kvantum mechanic calculation
- DFT (Density Functional Theory)
- Modeling of materials in atomic scale



DIPLOMA THESIS

Quantum-mechanical analysis of phases containing tin and lead

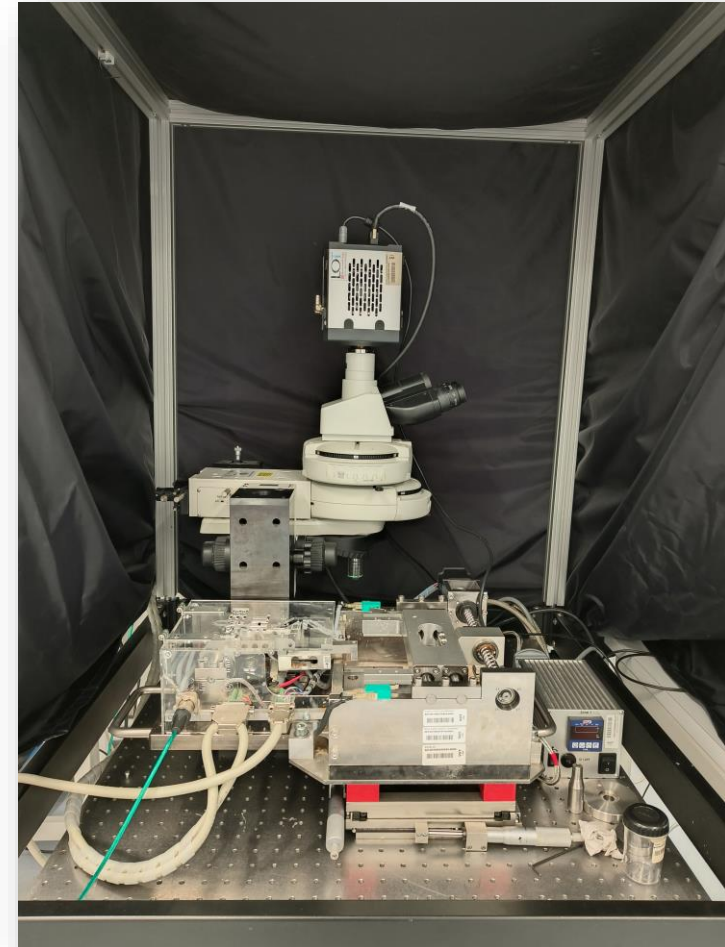
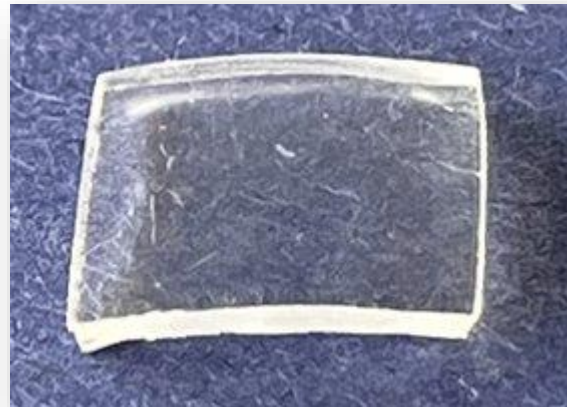
- Supervisor doc. Mgr. Jana Pavlů, Ph.D
- Consultant Mgr. Martin Friák, Ph.D.
- Sn – Pb system
- Tin pest phenomenon
- Phonon calculation



PhD STUDY

Superlubricity of articular cartilage

- Supervisor - prof. Ing. Martin Vrbka, Ph.D.
- Supervisor specialist - doc. Ing. David Nečas, Ph.D.
- Hydrogel – cartilage model
- Visualisation of contact



DĚKUJI VÁM ZA POZORNOST

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ÚSTAV
KONSTRUOVÁNÍ

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