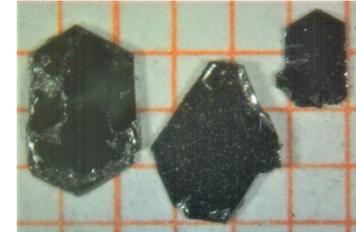
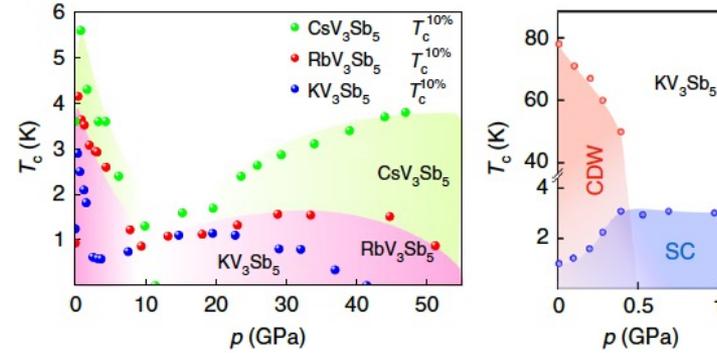
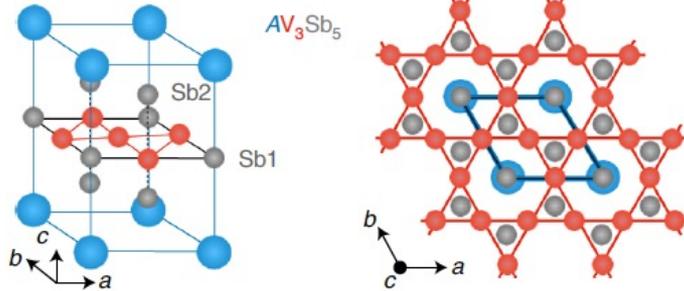


Tuning the electronic properties of novel Kagome superconductors AV_3Sb_5



Crystal structure and (P,T) phase diagram of AV_3Sb_5 superconductors [2]. Single crystals synthesized at IQMT (Dr. A. A. Haghighirad)

- In 2020 a new family of Quantum Materials with Kagome crystal structure was discovered [1]. It was rapidly found to display highly tunable charge density wave (CDW) and superconducting orders [2].
- It constitutes one of the most original and promising platform for studying the interplay between geometric frustration, topology and electronic correlations in Quantum Materials.
- First ,european' single crystals synthesized at IQMT (Dr. A. A. Haghighirad)

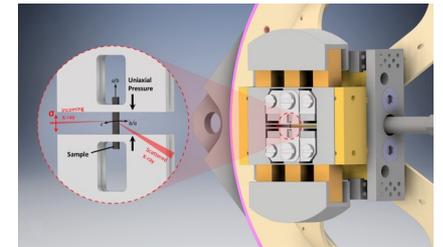
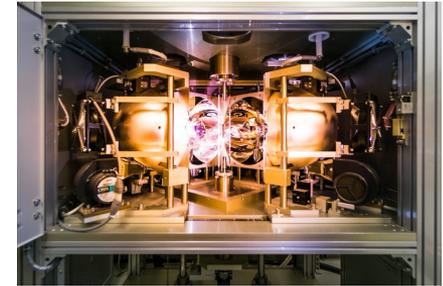
[1] Ortiz, B. R. *et al. Phys. Rev. Lett.* **125**, 247002 (2020).

[2] Neupert, T., Denner, M. M., Yin, J.-X., Thomale, R. & Hasan, M. Z. *Nat. Phys.* **18**, 137-143 (2022).

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■ Possible master theses work at IQMT:

- Growth, structural and electronic characterization of new types of Kagome superconductors (doped materials)
- Effect of uniaxial pressure on the electronic properties of the Kagome superconductors studied by combination of low temperature x-ray diffraction, inelastic light scattering and transport experiments



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