

Secret of Stradivarius violins revealed



The old Italian master violin makers Antonio Stradivari and Guarneri del Gesù relied on unexpected chemical additives to bring forth the extraordinary sound of their instruments. This has now been revealed by an international team of researchers with the participation of the Paul Scherrer Institute PSI. At the Swiss Light Source SLS, they examined wood shavings left over from repairs of the valuable violins. From the measurement results, the researchers conclude that the old masters extensively treated the spruce wood they used with potash, alum – a salt containing aluminium and potassium –, or other substances before proceeding with the mechanical work. The study has been published in the journal *Angewandte Chemie International Edition*.

Read the full story:

<https://www.psi.ch/en/media/our-research/secret-of-stradivarius-violins-revealed>

C.-K. Su et. al, *Angewandte Chemie International Edition*, 01 June 2021 (online)

DOI: [10.1002/anie.202105252](https://doi.org/10.1002/anie.202105252)

Understanding the physics in new metals



Researchers from the Paul Scherrer Institute PSI and the Brookhaven National Laboratory (BNL), working in an international team, have developed a new method for complex X-ray studies that will aid in better understanding so-called correlated metals. These materials could prove useful for practical applications in areas such as superconductivity, data processing, and quantum computers. Today the researchers present their work in the journal *Physical Review X*.

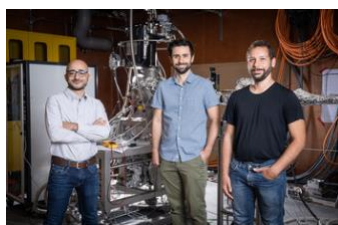
Read the full story:

<https://www.psi.ch/en/media/our-research/understanding-the-physics-in-new-metals>

Keith Gilmore et. al, *Physical Review X* 19 July 2021

DOI: [10.1103/PhysRevX.11.031013](https://doi.org/10.1103/PhysRevX.11.031013)

SwissFEL — First Light at Furka: The experiments can begin



It's another milestone on the path to full operation of the X-ray free-electron laser SwissFEL with five experiment stations in all: "First light" at the experiment station Furka. It clears the way for experimental possibilities that are unique worldwide. Team leader Elia Razzoli explains what the Furka Group is planning to do.

Read the full story:

<https://www.psi.ch/en/media/our-research/first-light-at-furka-the-experiments-can-begin>

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