
Precise characterization of the low temperature structures of vanadium oxides

Researchers:

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Description:

Vanadium pentaoxide is a van der Waals material that recently has been found extremely promising for manipulating light at the nanoscale. Since it exhibits phonon-polaritons, it has brought a lot of excitement to the nano-optics community. In addition the properties can be tuned through cation intercalation.

In the proposed Activity we will study the structure, phonon dispersions, electronic, optical and magnetic properties of V₂O₅ and NaV₂O₅ in bulk and flakes at different temperatures in order to understand key aspects to control the optical emission properties in van der Waals materials.

The work will be carried out in close collaboration with experimental partners.

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