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[532] Probing mono- and few-layer 1T- $TaSe_2$ with ARPES

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Physical properties can change significantly when bulk materials are thinned down to a few atomic layers. Here, we study the intriguing example of the metallic charge density wave system 1T- $TaSe_2$. Previous transport experiments on 1T- $TaSe_2$ found a metal to insulator transition at a thickness of 5 layers. Monolayer 1T- $TaSe_2$ was proposed to be a Mott insulator and is a candidate quantum spin liquid. We perform Angle resolved photoelectron spectroscopy (ARPES) measurements on ultra clean exfoliated few layer 1T- $TaSe_2$ to study this intriguing phase of matter.

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