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**Evidence for Layered Quantized Transport in Topological Insulator  $\text{ZrTe}_5$**  WEI WANG, XIAOQIAN ZHANG, LIANG HE, Nanjing University —  $\text{ZrTe}_5$  is an important semiconductor thermoelectric material and a candidate topological insulator. Here we report observation of Shubnikov-de Hass oscillations accompanied by quantized Hall resistance in  $\text{ZrTe}_5$  crystal, and the mobility can achieve  $41000 \text{ cm}^2\text{V}^{-1}\text{s}^{-1}$ . The angle-depended magnetoresistance demonstrates that the transport properties are 2D-like. We also founded that Hall conductance  $G_{xy}$  shows quantized step and each step is  $1 e^2/h$  for single layer. We provide the Shubnikov-de Hass oscillations do not origin form the surface states, but come from the bulk. Each single layer  $\text{ZrTe}_5$  act like an independent 2D electron systems, and the bulk of the sample shows a multilayered quantum Hall effect. In addition to reveal the nature of Shubnikov-de Hass oscillations, we also provide a new point to explain the anomalous peak nature in temperature resistance, which have puzzled many years for the scientists.

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