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**High-resolution angle-resolved photoemission study of electronic structure and charge-density wave formation in HoTe<sub>3</sub>.** GUODONG LIU, CHENLU WANG, YAN ZHANG, BINGFENG HU, DAIXIANG MOU, LI YU, LIN ZHAO, XINGJIANG ZHOU, Beijing National Laboratory for Condensed Matter Physics, Institute of Physics, Chinese Academy of Sciences, Beijing 100190, China, NANLIN WANG, International Center for Quantum Materials, School of Physics, Peking University, Beijing 100871, China, CHUANGTIAN CHEN, ZUYAN XU, Technical Institute of Physics and Chemistry, Chinese Academy of Sciences, Beijing 100190, China — We performed high-resolution angle-resolved photoemission spectroscopy (ARPES) measurement on high quality crystal of HoTe<sub>3</sub>, an intriguing quasi-two-dimensional rare-earth-element tritelluride charge-density-wave (CDW) compound. The main features of the electronic structure in this compound are established by employing a quasi-CW laser (7eV) and a helium discharging lamp (21.22 eV) as excitation light sources. It reveals many bands back folded according to the CDW periodicity and two incommensurate CDW gaps created by perpendicular Fermi surface (FS) nesting vectors. A large gap is found to open in well nested regions of the Fermi surface sheets, whereas other Fermi surface sections with poor nesting remain ungapped. In particular, some peculiar features are identified by using our ultra-high resolution and bulk sensitive laser-ARPES.

Guodong Liu  
Beijing Nat'l Lab., Inst., of Physics, Chinese Academy of Sciences

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