

Abstract Submitted
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Non Fermi Liquid behavior and disorder in BaVS₃ ANA AKRAP, Brookhaven National Laboratory, Upton, New York, NEVEN BARISIC, Universitaet Stuttgart, Germany, FLORENCE RULLIER-ALBENQUE, SPEC, Orme des Merisiers, CEA, Gif sur Yvette, France, HELMUTH BERGER, LASZLO FORRO, Institut de Physique de la matiere complexe, EPFL, Lausanne, Switzerland — In strongly correlated BaVS₃, the interplay between a wide one-dimensional d_z^2 band and the localized e_g electrons leads to a wealth of electronic phases. In this work we investigate the high pressure non-Fermi liquid (NFL) phase of BaVS₃ by means of transport measurements, focusing on the influence of disorder, introduced by fast electron irradiation and sulfur deficiency. Our results are interpreted within a novel scenario in which quasi-one dimensional $2k_F$ -CDW fluctuations are responsible for the NFL behavior.¹

¹N. Barišić *et al.*, arXiv:0712.3393v1

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