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Kondo hybridisation and the origin of metallic states at the (001) surface of SmB₆

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DOI

[10.1103/PhysRevX.3.041024](https://doi.org/10.1103/PhysRevX.3.041024)

Publication date

2013

Document Version

Final published version

Published in

Physical Review X

[Link to publication](#)

Citation for published version (APA):

Frantzeskakis, E., de Jong, N., Zwartsenberg, B., Huang, Y. K., Pan, Y., Zhang, X., Zhang, F. X., Bao, L. H., Tegus, O., Varykhalov, A., de Visser, A., & Golden, M. (2013). Kondo hybridisation and the origin of metallic states at the (001) surface of SmB₆. *Physical Review X*, 3(4), 041024. <https://doi.org/10.1103/PhysRevX.3.041024>

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k_z vs k_{\parallel} and Fermi surface at $k_z = 4\pi/a$

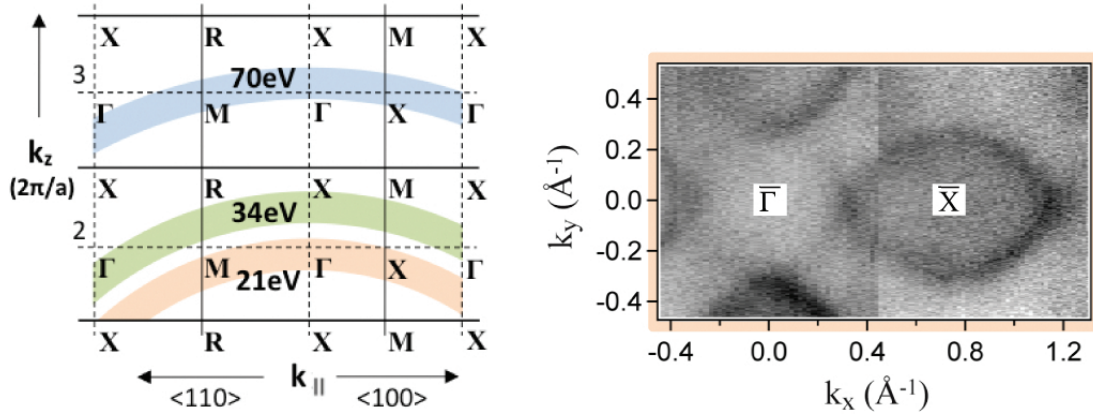


FIG. S1: (left) A schematic representation of the k -space arcs traced with $h\nu=21$ eV, 34 eV and 70 eV. The calculation assumes free-electron final states and an inner potential V_0 of 16 eV. Uncertainty in the value of the inner potential but also due to intrinsic broadening effects ($\delta k_z=1/\lambda$ where λ is the photoelectron escape depth [1]) is transformed into k_z uncertainty as illustrated by the finite thickness of the arcs. (right) Experimental Fermi surface acquired with $h\nu=21.22$ eV which corresponds to an approximate k_z value of $4\pi/a$.

[1] J. Krempasky, V. N. Strocov, L. Patthey, P. R. Willmott, R. Heger, M. Falub, P. Blaha, M. Hoesch, V. Petrov, M. C. Richter, et al., Phys. Rev. B 77, 165120 (2008).