

Abstract Submitted
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Vortex chains decoration in anisotropic spin-triplet superconductor Sr_2RuO_4 ¹ KLAUS HASSELBACH, CRTBT-CNRS, VOICU DOLOCAN, CRTBT-CNRS, YING LIU, Pennsylvania State University, PASCAL LEJAY, CRTBT-CNRS, DOMINIQUE MAILLY, LPN-CNRS, CRTBT-CNRS TEAM, PENNSYLVANIA STATE UNIVERSITY TEAM, LPN-CNRS TEAM — We study flux structures in single crystals of the anisotropic spin triplet superconductor Sr_2RuO_4 by scanning microSQUID microscopy¹. The appearance of vortex chains is noted as the applied field is tilted towards the inplane direction of the 3D superconductor. The vortex chains are easily turned in the ab plane by rotation of the inplane component of the applied magnetic field. The decoration of vortex chains by crossing vortices is observed: two vortices orientations appear, one along the layers and the other closely perpendicular to the layers. The findings are discussed in view of the Lawrence-Doniach and Ginzburg Landau models of anisotropic superconductors. Ref. 1 V.O. Dolocan PRL Vol 95 (2005) 97004

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Klaus Hasselbach
CRTBT-CNRS

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