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Effects of Tilted Columnar Defects on J_c Behavior in (Ba,K)Fe₂As₂ TSUYOSHI TAMEGAI, AKIYOSHI PARK, KENGO OHARA, SUNSENG PYON, The University of Tokyo, TADASHI KAMBARA, RIKEN, HISASHI KITAMURA, National Institute of Radiological Sciences — Iron-based superconductors have very promising characteristics to be used for practical applications at high fields. We have already demonstrated a remarkable enhancement of J_c in (Ba,K)Fe₂As₂ by irradiating swift particles [1,2]. In order to further enhance J_c , we introduced columnar defects at an angle from the c -axis. We found a novel non-monotonic field dependence of J_c as well as its enhancement in such samples at relatively high temperatures. Origins of these anomalous J_c behavior and the degree of J_c enhancement with the tilted columnar defects will be discussed. [1] T. Taen *et al.*, Supercond. Sci. Technol. **28**, 085003 (2015). [2] F. Ohtake *et al.*, Physica **C518**, 47 (2015).

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